

# HEROES TONORROY

WHO'S HOT?

# Huron Valley Schools/ GM Proving Ground

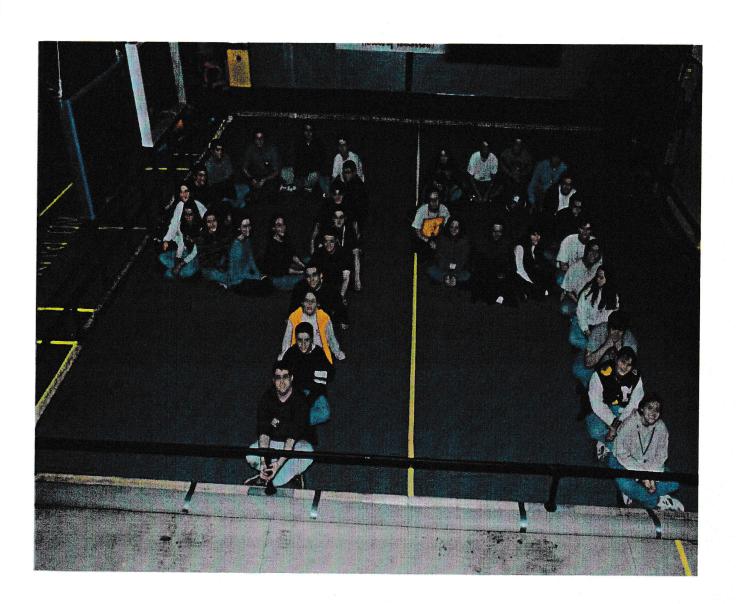


1999

# Team 67



# Team 67



#### MISSIONS

#### FIRST MISSION STATEMENT

The mission of the FIRST Robotics Competition is to inspire curiosity and create interest in science and mathematics among today's youth by immersing them in the world of engineering, and showing the important connection between classroom lessons and real-world applications.

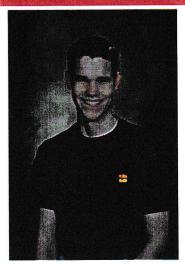
#### HOT MISSION STATEMENT

The mission of the GM Proving Ground/Huron Valley Schools FIRST Robotics Team is to provide a venue where high school students will be inspired to explore the fields of science and technology in a real world environment with the goal of transforming these students from the Heroes of Tomorrow to the Heroes of Today.

# Heroes of Tomorrow



Our Team



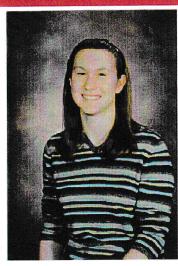
Tony Alecci Milford HS Michigan Tech Mechanical Engineering

"FIRST helped me to develop the skills I will need in the future"



Jenny Brinker
Milford HS
Aquinas College
Math & Physics Education

"FIRST made me want to minor in physics"



Jenni Ball Lakeland HS University of Detroit Mercy Mechanical Engineering

"FIRST taught me the importance of communication within a group"



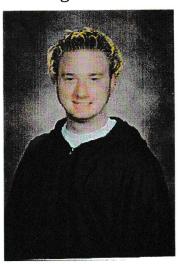
Dana Cochrane Lakeland HS Western University Engineering

"FIRST has exposed me to many different areas of engineering"



Jodi Berg Milford HS undecided Veterinary medicine

"FIRST taught me engineering and organization skills"



Josh Conte Lakeland HS Lawerance Tech Electrical Engineering

"FIRST is the punt, pass, and kick for your mind"



Kelly Corrigan Lakeland HS Western Michigan University Undecided

"FIRST taught me strong strong work ethics and team work"



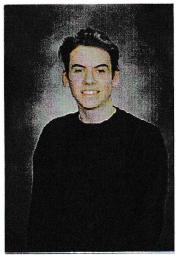
Josh Goodrum
Milford HS
Undecided
Computer Animation

"FIRST gave me knowledge of software and real-world experience"



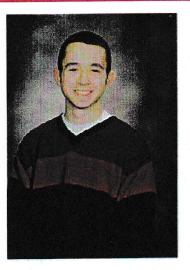
Kathleen Cummings Lakeland HS University of Michigan Aerospace Engineering

"FIRST provided me with an opportunity to experience technology first hand"



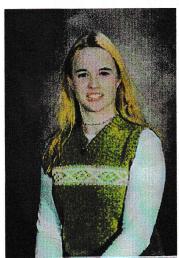
Mike Gorski Milford HS Michigan Tech Mechanical Engineering

"FIRST has exposed me to many different areas of engineering"



Aaron Gofton Milford HS Kettering University Engineering

"FIRST added to my desire to work with science & technology"



Nicole Jefferies Lakeland HS University of Michigan Engineering

"FIRST experience will help me when I become an engineer"



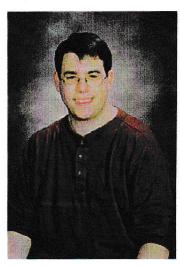
Christina Maurer Lakeland HS Western Michigan University Law

"FIRST has shown me the true side of engineering"



Matt Waldron Milford HS Oakland University Industrial Engineering

"Something can go wrong 100 times, but it only takes once to get it right"



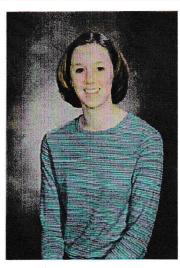
Jeff Shier Lakeland HS Michigan Tech Chemical Engineering

"FIRST gets me used to the processes used in my profession"



Teresa Woolworth Milford HS Calvin College Communications

"FIRST has taught me the importance of communication"



Johanna Stephenson Milford HS OCC Public Relations

"FIRST helped me realize what the business world is like"



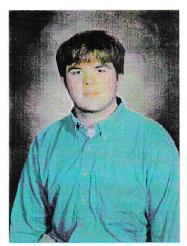






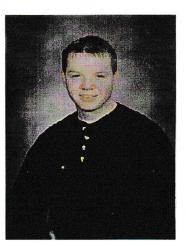






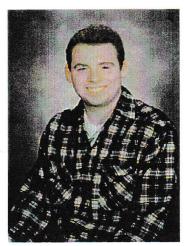
Josh Beach Milford HS M.I.T Computer Science

"FIRST has given me real world experience"



Dusty Caldwell Milford HS Michigan Tech Mechanical Engineering

"Greater understanding of what I'm getting in to"



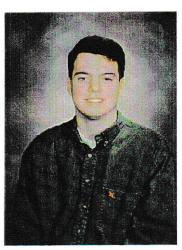
Jacob Beningo Milford HS Kettering University Mechanical Engineering

"FIRST made me want to be an engineer even more"



Ellen Cogo Milford HS Grand Valley State University Film & Cinematography

"FIRST gave me a chance to try out my chosen field"



Matt Brown Milford HS University of Michigan Computer programming

"FIRST has given me career options in computer animation"



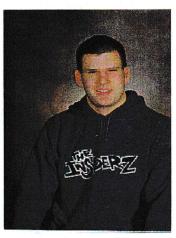
Angela Collins
Milford HS
Indiana University
Education

"FIRST helped me realize I enjoy working with people"



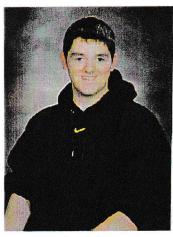
Rob Coppersmith Lakeland HS Undecided Engineering

"FIRST taught me how to work with people"



Dan Goodell Lakeland HS Undecided Film & Photography

"FIRST gave experience working with film and video"



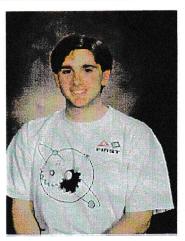
Brad Eklov Milford HS Undecided Medicine

"FIRST made me think more about what I want to do with my life"



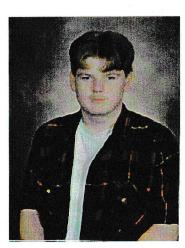
Pam Hayton Milford HS Eastern Michigan University Undecided

"FIRST taught me to communicate better with a group"



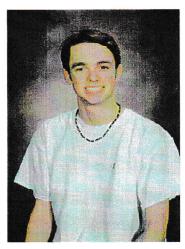
Andrew Fleming Milford HS M.I.T. Astro Physicist

"FIRST has broadened my horizons and exposed me to new possibilities"



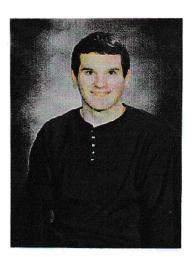
Dustin Nader
Milford HS
Undecided
Electrical Engineering

"Learning new computer programs"



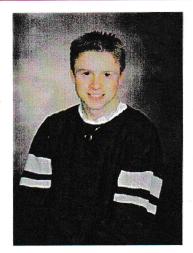
Nick Oas Milford HS Oakland University Electrical Engineering

"FIRST gave me valuable experience in engineering"



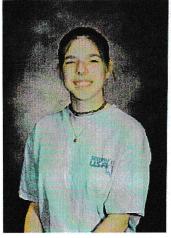
Erik Sippola Milford HS Undecided Engineering

"FIRST has made me consider a career in animation"



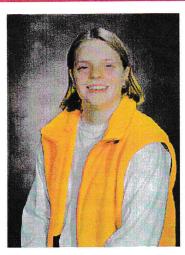
Don Reed Milford HS Michigan Tech Engineering

"FIRST made me want to be an engineer even more"



Megan Sloan Milford HS Boston University Film

"FIRST helped me to decide on a career"



Sarah Schemanske Milford HS Michigan Tech Engineering

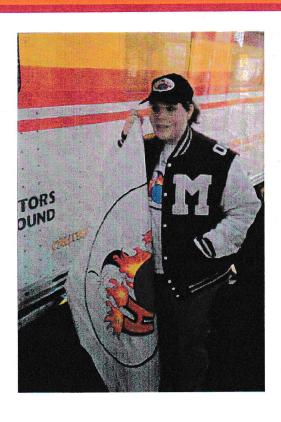
"FIRST has given me skills that will help me in the future"



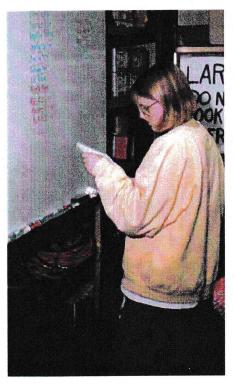
Dana Slyvester Milford HS Michigan Tech Physics

"FIRST helped me narrow down possible career fields"

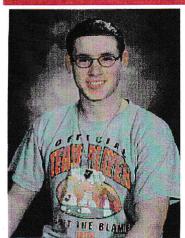








# Sophomores



Ted Kokx Milford HS Army Undecided

"FIRST has helped me to be better at problem" solving and construction"



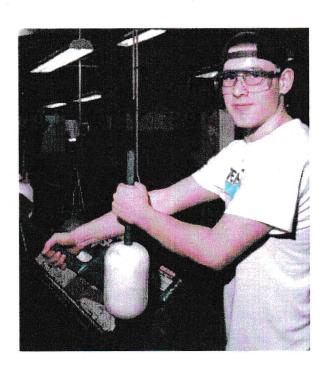
Eric Simmons Lakeland HS ITT Undecided

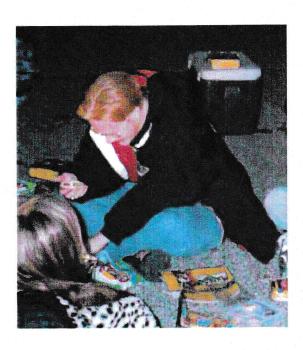
"FIRST enhanced my plans and hopes for the future"



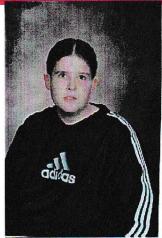
Ben Stephenson Milford HS University of Michigan Undecided

"FIRST has allowed me to be part of a team"





# Freshmen



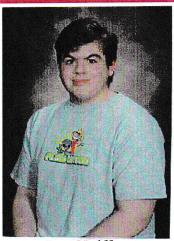
Josh Cochrane Lakeland HS Undecided Undecided

"FIRST has taught me about technology"



Leith Nader
Milford HS
University of Michigan
Undecided

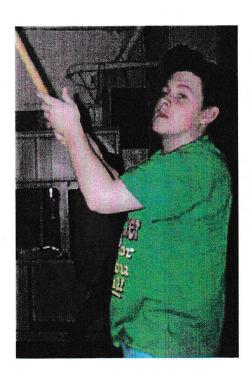
"I have learned new things that have altered my thoughts"



Jon Nolff Milford HS Undecided Engineering

"FIRST has helped me see what engineers do"



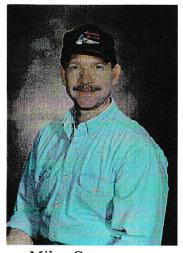




Laura Ball



Bruce Collins



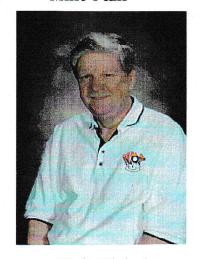
Mike Gray



Joni Burman



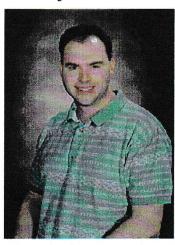
Mike Falk



Walt Hickok



Rudy Cender



Dan Gee



Ian McEwan



Judy Miotke



Gary Rush



Jennifer Swierkos



Tom Nader



Jeff Stott



Dave Verbrugge



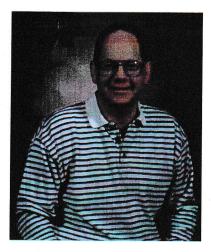
Judy Podvin



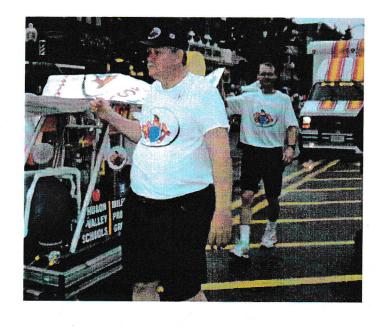
**Bob Swierkos** 

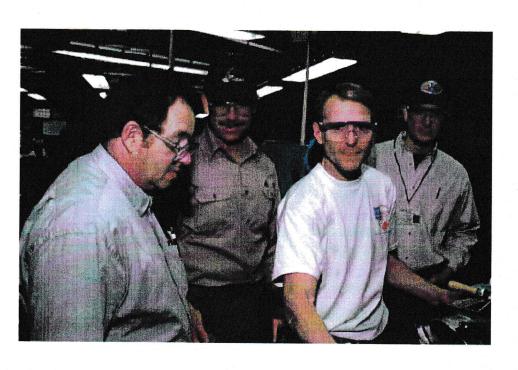


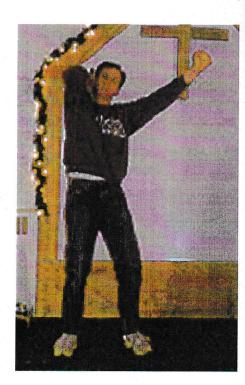
Linda Whiteaker



Gerry Wilson







The HOT team would like to thank the advisors for all the time and effort they put into the 1999 season. The hard work and dedication given by everyone was greatly appreciated. The HOT team couldn't be what it is today without all their help. Thank you to the Heroes Of Today from the Heroes Of Tomorrow.

#### Mock Elections

#### Most likely to succeed



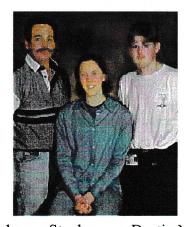
Josh Beech, BobSwierkos, Kat Cummings

#### Most Helpful



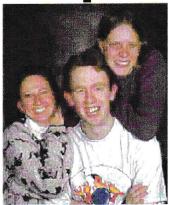
Don Reed, Teresa Woolworth, Dave Verbrugge

#### Most Dedicated to team goals



Tom Nader, Johanna Stephenson, Dustin Nader

#### **Most Spirited**



Jenny Swierkos, Josh Goodrum, Sarah Schemanske

#### Most Original



Josh Conte, Nicole Jefferies Not pictured:Dick Balsley

# Most likely to talk about FIRST



Andy Flemming, Rudy Cender, Jenny Brinker

# Groups of the HOT Team

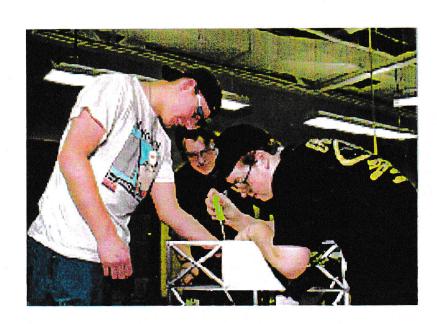
#### ROBOT GROUP

The reason why most students join a FIRST team is to build a robot, and the HOT team is no exception. The majority of students who joined the team work on the robot. Their duties include anything from mechanical to electrical skills, to building a shipping crate, to creating a robot design. Always wearing their safety glasses the students can be found hard at work in the machine shop in Building 40 of the General Motors Proving Ground.





# ROBOT GROUP



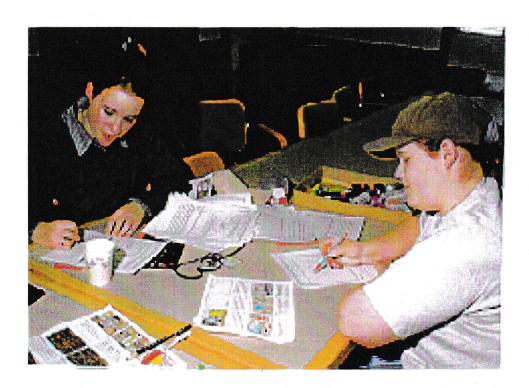




#### ANIMATION GROUP

One of the smaller divisions in the HOT team is the animation group. Approximately one fourth of the team works on this aspect of FIRST. The group's responsibilities include telling a story about our robot in a thirty second animation using Studio 3D Max. The first step in this process is creating a 18 frame story board, and then taking the story and making a 900 frame computer animation.

What a process!



# ANIMATION GROUP

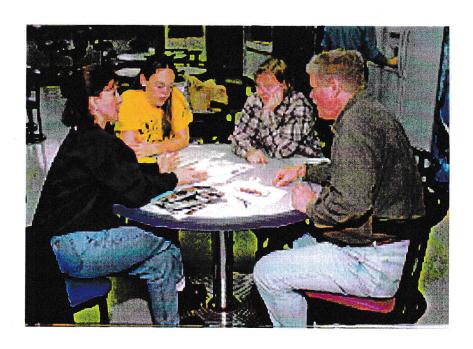




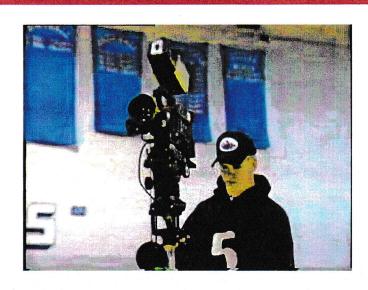


#### CHAIRMAN'S GROUP

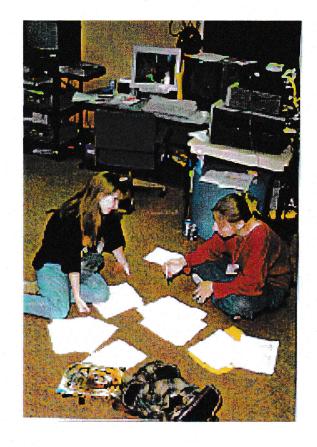
Documentation of the HOT team's activities falls to the shoulders of the Chairman's group. This is the smallest group found on the HOT team. Their job is to show the entire process the team goes through during the year. This encompasses all aspects of team activities. Community outreach, LEGO League, fundraising, and individual groups are just a few of the areas which the chairman's group covers in their presentation. At the heart of all these activities is the team's goal of reaching out to the community and sharing the tremendous impact of FIRST. This group simply shows these attempts. This part of FIRST is a year long project which culminates with the submission of a presentation to FIRST in a creative manner detailing the team's activities.

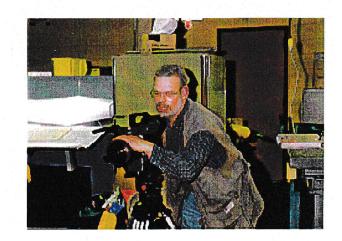


# CHAIRMAN'S GROUP









#### CAPTAINS

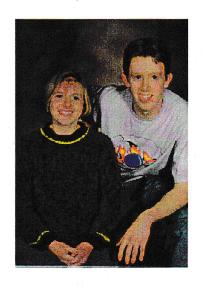
#### **CAPTAINS**

In order for any team to be successful, someone must lead the way. The HOT team captains do exactly that. Composed of senior and junior team members, two from robotics, chairman's, and animation, and two from each high school, the captains quickly learned to work together. Faced with organizing team building activities and keeping other members informed of all HOT team happenings the group soon developed excellent communication and leadership skills. They schedule their own meetings and even have a monthly captain's dinner. These students keep the team on their toes and help make sure things run smoothly.

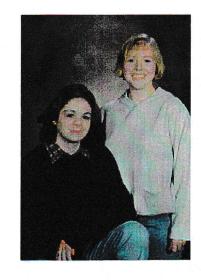




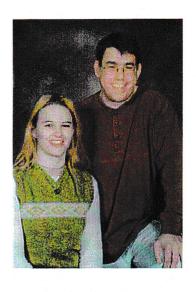
## CAPTAINS



MILFORD HIGH SCHOOL



CHAIRMAN'S GROUP



LAKELAND HIGH SCHOOL



ANIMATION GROUP



ROBOT GROUP

#### BOOSTERS

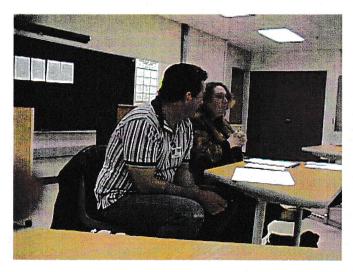
#### **Boosters**

The HOT team would find is difficult, if not impossible, to function without a group of dedicated parents. Our parent boosters organize every fundraiser and attend every competition. They're also great for moral support. Members range from mothers to fathers to parents of alumni members. They are constantly smoothing out the details and determining future paths to take. They volunteer to do all sorts of activities to help ease the students' load. More importantly they believe in us. The HOT parents are truly unbelievable.

Booster meetings are held bimonthly at Milford High School. Cochairs Tom Nader and Suzanne Flemming, along with Treasurer Cynthia Sloan, are in charge of running the meetings and filling in parents who could not attend. They also send out a monthly newsletter to help keep everyone on the team up to date. The boosters give their time to every project we attempt, especially fundraising. With their help, the team was able to raise over one third of their funds. From running cash registers at the Silverdome to cleaning up the HOT Spot, our boosters are always with us. They even travel with us as chaperones. Without their efforts behind the scenes, our show could never go on.



# BOOSTERS



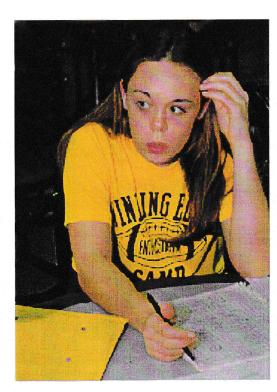




# THE HOT TEAM







# Lego League

# Lego League

With the success of the high school level robotics competition, FIRST launched a series of programs to create curiosity and to inspire younger children about the wonders of science and technology. In collaboration with LEGO Mindstorms FIRST created the FIRST LEGO League. The FIRST LEGO League is a friendly high-tech sporting event in which robots compete against each other. Similar to the FIRST high school competition, teams were supplied with a "problem" and a kit of parts. The students (with the help of the HOT team mentors) developed and built their robots to compete against each other for the winning solution. The LEGO Mindstorms includes over 700 LEGO pieces including transmitters, motors, light and touch sensors, assorted gears, an RCX microcomputer, and an infrared transmission tower to download the program right into the robots.

This year being the pilot, FIRST was limited to choosing only a few states to participate in the program. Over 30 school districts nationwide volunteered to host this excellent program. The states chosen were Michigan, New Hampshire, New York, and Illinois. The HOT team was chosen as the team from Michigan to host the event. This allowed the Heroes Of Tomorrow to be the Heroes Of Today to the younger students in the Huron Valley area. The HOT team was able to mentor approximately 500 students from nine elementary and two middle schools encompassing 16 classes and 48 teams. Anna Maenhount, who designed the LEGO program for FIRST had the following to say about HOT SHOTS Havoc, "There are two million young kids in the U. S. and Huron Valley is helping the program to grow across the country." The HOT team also helped greatly with what Dean Kamen says is the goal of the program, "Our goal is to ensure that children of all ages across the United States have the opportunity to discover the excitement and rewards of science, math, and technology. As there are many sports heroes as role models, we look to these children to become the future science and technology heroes of our country."

# Lego League

#### **Getting Started**

In the spring of 98, FIRST sent out word for teams interested in piloting the LEGO League. The HOT team responded with a letter identifying our interest and describing the team's ideas of how to implement this project. The plan was to include two classrooms from each of the eleven elementary schools and four middle schools in the district. HOT team members would serve as mentors to the younger students. The HOT team would find the funding for the project and carry out FIRST's vision in implementing the project. Costs were estimated to be around \$16,000, based on the above figures.

One of the advisors applied for a grant to establish an elementary and middle school LEGO League utilizing concepts of technology and science. The Career Preparation Grant was written to cover a three year action plan and LEGO League was approved for this year, 1998-99, and tentatively for the 1999-2000 and 2000-2001 school years. Funds from the grant covered materials to construct 20 playing fields and a scoreboard, purchase of 58 Mindstorm LEGO kits at \$180 apiece, and a portion of the cost to purchase 16 computers.

Once the funding was available the HOT team was ready to roll!!!





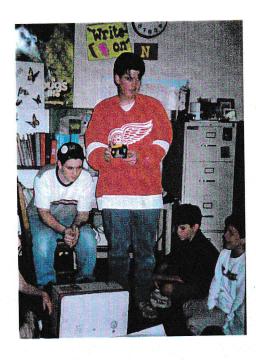


#### Step One

Before you start to speak, it's a good idea to know what you're talking about. Because the LEGO League was new to everyone this year, the HOT team held a training workshop to familiarize all those involved with LEGO and the Mindstorm system. From eight until noon on September 26th, HOT members and elementary teachers were paired up to try and create and program their own LEGO robot. Twenty computers lined the walls of the cafeteria at Johnson Elementary and tiny LEGO pieces lay everywhere. The workshop, which was conducted by three teachers who had traveled to New Hampshire for the Pilot LEGO Mindstorm roll-out, was an opportunity for teachers and students to learn to work together. After all, their partnership would be vital for the success of the program, and what better way to bond then to spend a Saturday morning playing with LEGOs?

#### Leading the Way

The HOT team has always been called the heroes of tomorrow; the LEGO League mentor program was a chance for the team to be heroes of today. For six weeks the HOT mentors worked side by side with teachers to help introduce the ideas of FIRST to a younger generation. The mentors assisted students in constructing and programming their LEGO bot, as well as developing a team name and designing a logo. More importantly, they tried to teach the HOT SHOTS that FIRST is about so much more than building a robot; that team work is just as important as new batteries. Working with fifth graders was definitely an interesting experience. It was impossible not to get caught up in their creativity and obvious enthusiasm. The bond that formed between the mentors and their HOT SHOTS is one that will never break. They ceased to be just little kids and became full-fledged members of the HOT team. They became the future Heroes of Tomorrow.





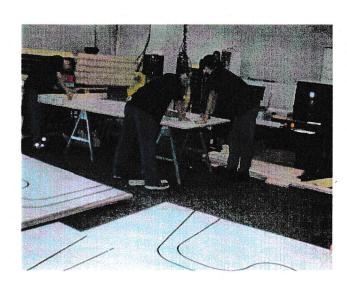






A Place to Play

After the classes were chosen and the mentors were trained, there was still one more thing to do before the teams could begin running their robots; the playing fields had to be constructed. On October tenth and eleventh, HOT team members gathered at Lakeland High School to assemble 20 playing fields. This was the first team effort of the year. Regardless of personal schedules, members came to help for as much time as they could. Members of Milford's marching band came after their competition and Lakeland High School students left early to attend their homecoming dance. Due to the large number of fields that had to be built, a production line was set up. There were people drawing lines, taping lines, drilling holes, putting walls on, and attaching ramps. Although this was a great deal of work, it was also a great deal of fun, allowing teachers, students, parents, and GM employees to meet each other and to start to become a team.





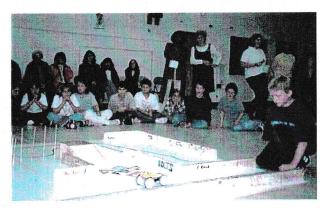


#### Movin' On Up

Excitement was high at nine Huron Valley elementary and two middle schools during the first week of November. A month of trial and error, discussion among teams, plans and successes all ended as each school held a competition to determine which team would represent their school at the HOT SHOTS Havoc FIRST LEGO League competition on November 7th.

The robots were given last minute checks as parents, friends, local media, and HOT team mentors arrived. Anticipation increased as one by one team members were introduced by their teachers, who ran the school competition. Now for the fun. Teams ran the course solo as everyone cheered wildly. Between matches the students went back to the computers to make slight adjustments. Then came the head to head competitions as all eyes were glued to the playing field. Finally all of the rounds were run and a school champion was crowned. The other teams were not eliminated however. They were asked to perform in exhibition matches during the November 7th event.













Twas the Night Before Havoc

In order to have everything perfect for the HOT SHOTS Havoc FIRST LEGO League Competition on Saturday, the HOT team met on Friday night from 4:30 until Midnight to set-up the gym at Lakeland High School. Eleven playing fields were set-up around the gym floor to give each class a pit area along with an Exhibition field and a Competition playing field. Banners were hung above each pit area displaying the team's names and members. Teachers from the competing elementary and middle schools arrived intermittently during the evening to also prepare for the next days competition. They set-up their computers and helped to make each pit area unique to their own students.

This event also required a tremendous amount of sound and video equipment. Television monitors were placed strategically around the gym to enable all who were present, both in the stands and the pit areas, to have a birds-eye view of the exhibition and the competition rounds. Sound checks were done to ensure all would hear and understand the announcements made by our Master of Ceremonies. A concession stand was organized by our parent booster club which would keep everyone happy and full for the day long event. One of the last projects of the evening was to build a scoreboard showing the competing team names and their results from each round.

Throughout the evening a tremendous amount of support was generated to ensure the success of the competition. Student members of the HOT team, engineers, and teachers from the team all pitched in to help, but it didn't stop there. Mentors were present to help the classroom teachers, students whose robots would be competing dropped in to view the set-up unable to contain their excitement, and parents of HOT team members assisted wherever needed. Though the evening was long and tiring everyone left feeling the excitement and anticipation for the next days activities.







#### The Hardest Job Of All

As with any competition, the need for judges arose for the HOT SHOTS Havoc competition. The selection process for determining whom the judges would be was a difficult one. Judges were selected based on their involvement in the community and their potential influence in student's lives. This was also an opportunity for the HOT team to give more exposure about the FIRST program and its impact in the lives of students, at all levels to Huron Valley School district administrators and community members. The final choices resulted in a team of highly respected judges who not only judged the competition but interacted with all teams, and what a fine job they did. One of the judges was introduced to the excitement of FIRST through this experience, as he was brand new to the district. The event was thoroughly enjoyed by this special panel and the HOT team greatly appreciated their time.

DR. ROBERT O'BRIEN HURON VALLEY SUPERINDENTENT HEAD JUDGE

MR. PAUL GIMELIN ASSISSTANT PRINCIPAL LAKELAND

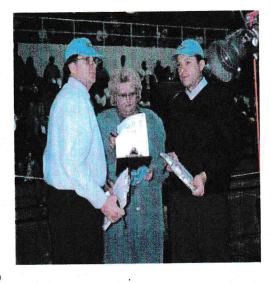
MR. PAUL HECKER ASSISSTANT PRINCIPAL MILFORD

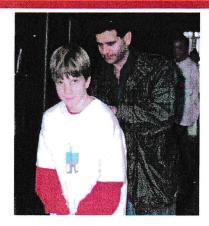
MS. CAROL BORICH PRESIDENT HURON VALLEY SCHOOL BOARD

MR. JOHN KNIGHT VICE PRESIDENT HURON VALLEY SCHOOL BOARD

CHIEF WAYNE WALLI MILFORD POLICE

CHIEF RONALD STEPHENS WHITE LAKE POLICE

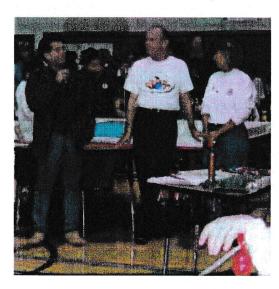


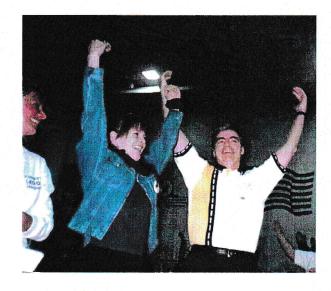




#### **Our FIRST Ride**

HOT members are used to having to fill many roles; however, 'shuttle bus driver' is a new one. Some how Dean Kaman, Anna Maenhout and Andrew Allen had to be transported from their hotel to Lakeland High School before the competition started at 8 a.m. Six HOT team members were the answer. These very lucky students were given the task of driving the guests to the competition. This task led to an opportunity to chat with some of the most influential members of the FIRST program. Nicole Jefferies and Jeff Shrier drove Dean Kamam. Since Nicole is originally from New Hampshire, she and Dean had plenty to talk about. Anna Maenhaut rode with Josh Goodrum and Sarah Schemanski. They discussed the impact Lego was having, as well as the lovely Michigan scenery. Jodi Berg and Andy Fleming were able to hear stories from space as they drove Andrew Allen to Lakeland High School. The students will never forget their ride with their heroes and if their first career doesn't work out, there's always the taxi business.



















#### FIRST/LEGO League Pilot HOT SHOT HAVOC Huron Valley Schools/General Motors

#### Lakeland High School November 7, 1998

8:00 8	3:30	Team Registration	
8:30 8	3:55	Open Remarks	Dave Verbrugge
		Founders Remarks	Dean Kamen
		Presidents Remarks	Andrew Allen
		Introductions of Participants	
		Schools	
		-Teachers	
		-Teams	
		Judges	
		Referees	
		Assistants	
		Notable People	
8:55	9:00	Explanation of Rules	Rudy Cender
9:00	9:45	First Round – Solo Runs	
9:45	10:30	Second Round – Solo Runs	
10:30	11:00	Third Round - One on One Competi	tion
11:00	11:30	Fourth Round - One on One Compe	tition
11:30	12:00	Presentation of Awards	
		Final Thoughts	Andrew Allen
		Final Thoughts	Dean Kamen
		Closing	Dave Verbrugge













#### **Competition Day**

There's an old African proverb that say's, "It takes a village to raise a child." Apparently the Huron Valley community believes in this proverb, too. On November 7th, the Lakeland High School gym was packed with over 1,200 parents, teachers, and supporters of the FIRST LEGO League HOT SHOTS. It was standing room only as both young and old came to realize the kind of magic FIRST can bring.

The competition began at 8:30 am with opening comments by Dean Kamen and Andrew Allen. Both tried to express to the audience what FIRST means and the importance of the program reaching children while they are still young. They discussed the role that science and technology will play in the lives of the future generation and why it is so necessary for them to learn teamwork and partnership skills now. For many, this was their first experience with the FIRST program, and it was obvious the speakers really made an impact.

Finally, because the excitement of an eleven-year-old can only be contained for so long, the games began; it was like Christmas had come a few months early. There was cheering and yelling, dancing and singing; the gym floor was bursting at the seams. In the pits, mentors and teachers were helping the HOT SHOTS with last minute tuning. On the main floor, judges and referees were keeping the games running. Out in the hall, the parent boosters manned a concession stand, making sure that everyone stayed well fed. The HOT team was easy to spot as they worked behind the scenes as scorekeepers, computer and audio technicians, cameraman, photographers, crowd control, and field repair experts. This event was definitely a group effort. No one person could have done all this alone.

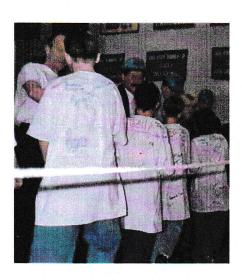
When it was all over, after the last round had been played and the last award given out, the HOT team realized just how much they had accomplished. They had helped a younger generation share in the fun and excitement of FIRST. They helped people to realize how rewarding science and technology, when paired with teamwork, can be. Despite the weeks of hard work, or maybe because of it, the HOT team had grown to think of the HOT SHOTS like little brothers and sisters. The team wanted to be at the competition because they were so proud of everything the younger ones had accomplished. The younger generation had officially become a part of the ever-growing HOT team family.







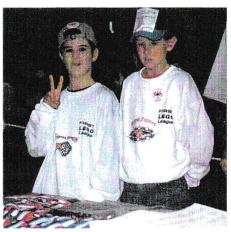












#### And the Winners Are....

Competition Awards:

First Place:

543 points

Speed Demons, Muir Middle

Second Place: 412 points

Stone Cold Stunners, Brooks Elementary

Third Place:

383 points

Roadrunners, Kurtz Elementary

Judges Awards:

Most Photogenic:

Robotic Wizards, Highland Elementary

**Most Bizarre:** 

Spirals, Oxbow Elementary

Play of the Day:

Lego Masters, Oak Valley Middle

**Most Creative Name:** 

Stone Cold Stunners, Brooks Elementary

Against All Odds: School Spirit:

All teams from Baker Elementary All teams from Kurtz Elementary

Sportsmanship Award:

All teams from Johnson Elementary

**Animation Award:** 

**Best Logo** 

Brookbodics, Brooks Elementary

Robotics Award:

**Best Design** 

Dragon Fighters, Johnson Elementary

Chairmen Award:

All-Star Team

Roadrunners, Kurt Elementary















#### LEGO League Takes Their Show On the Road

After an exciting local competition, the Huron Valley HOT SHOTS sought out a spotlight farther from home; a LEGO League competition at the Chicago Museum of Science and Industry. This event, put together by FIRST and LEGO, drew a host of influential, exciting judges and observers. The students were wowed by the astronauts, executives, and inventors.

Arriving the night before the tournament, camp was setup in the museum. After the initial staking of claims and unrolling of sleeping bags, the children were given the choice of fine-tuning their LEGO vehicle or getting an up-close and personal look at science and technology in the museum. The museum extended their hours until midnight so most LEGO Leaguers were able to do both.

Early the next morning, although tired from last nights escapades, the students made an earnest attempt at last minute tinkering. Eleven of the twelve teams competing were from Huron Valley. The twelfth team represented the museum.

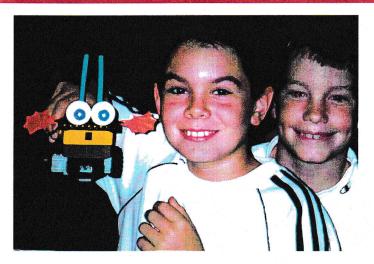
As the sleeping bags were stowed away, people began to arrive. Two high school FIRST teams brought their robots to put on display. TV crew, newspaper reporters and radio personnel from the Chicago and Detroit area covered the days events. Introductions were made and the tournament at last began. The event took on the good-natured, exciting, and busy tone of FIRST competitions. As teams were eliminated, they rallied behind others still competing and cheering them on.

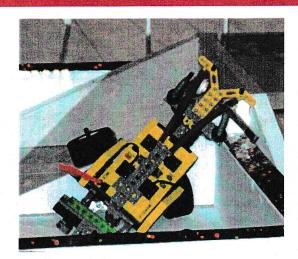
At the end of the competition the students anxiously awaited the awards ceremony. The HOT SHOTS were very excited as they received numerous awards, but the students received an even bigger reward as they took pride in other team's achievements.



#### Caught on Tape

As the excitement and thrill of 500 kids demonstrating their science and technology skills was observed at the HOT SHOTS Havoc FIRST LEGO League competition, the idea for a recruiting video was born. The HOT team was asked by FIRST to take on this project. Three students developed a script, and then with the help of GM support staff, they created a video. This three minute video explains the LEGO League program and its goals, shows exciting footage from the HOT SHOT HAVOC competition, and includes comments from teachers parents, and students on how the program impacted their lives.





**Beyond LEGO League** 

The LEGO robots are quite, the HOT SHOTS Havoc trophies are gathering dust, and all the batteries are dead. So, also, are the HOT SHOTS ideas about science and technology, right? NO!! Some teams are taking their dreams beyond the LEGO League.

The HOT SHOTS of Highland Elementary were introduced to the rules for this year's FIRST competition right after the kick-off. Each student then, after much thought, drew a design and wrote operating instructions for a robot that could compete in the competition. They, along with several other HOT SHOTS team, plan to support the HOT team by attending the Great Lakes Open in Ypsilanti, and even possibly the National Competition in Orlando.



#### **Tech Warriors**

Apollo, Ms. Spoor



"The hardest part of robotics was trying to find the right blocks to put here or there to make the car sturdy." - Matt Hendricks

#### Planet Dragon

Apollo, Ms. Spoor



"Racing at
Lakeland High
School will
always be an
exciting
memory." Amanda Ballnik

#### Planet Cool Cars

Apollo, Ms. Spoor



"My advice to kids next year is don't use the tractor wheels! (they never stay on.)" - Kris Beck

#### Brainstormers

Apollo, Mr. Gomez



"It's a good idea to work together as a team because you'll never get anywhere split up into three or four parts." - Amber Novak

#### Electrons

Apollo, Mr. Gomez



"LEGO League helped me to become better friends with the people on my team." -Jessica Riley

### Electrified Legos

Apollo, Mr. Gomez



"LEGO League taught me to think before you do anything because if you don't think you won't get anywhere." - Adam Jones

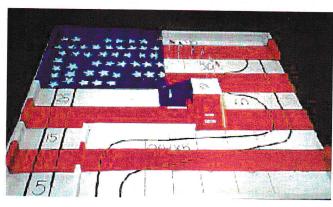
# Jestics and

#### Hot Robot

Baker, Ms. Cremeans



"LEGO League taught us to work together to build different things." -Melissa Ghislain



"It was very interesting to make up our own program on the computer and downloading them to the car!" - Kasey Kerr

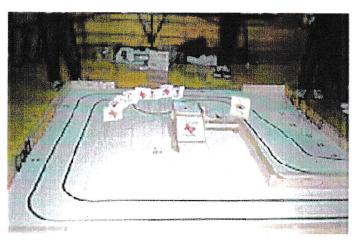
# Brookbotics and

#### Stone Cold Stunners

Brooks, Ms. Masson



"All the robot's at the competition were really great!" - Andrew Paulson



"It was obvious the students had put a lot of preparation into making their robots." - Mrs. Paulson

#### Robotech

Highland, Ms. Beach



"I thought LEGO League was very fun and interesting." -Pete Stugeon

#### AS2AW2HN

Highland, Ms. Beach



"We had to program the car to do turns and go up ramps. It was a really big challenge." -Katie Ralko

#### Robotic Wizards

Highland, Mr. Neighbors



"When we built our car, we did it with teamwork." - Melissa Lang

### **Huron Valley Racers**

Highland, Mr. Neighbors



"A few weeks into robotics, one of our motors broke. This gave our group a bigger challenge to build a one-motored car. Our group over-powered this challenge and won best car design!"-Zack Davis

#### **Rhoad Botics**

Highland, Mr. Neighbors



"The challenge course was really neat!" -Jamie Yauch

### LEGO Lightning

Johnson, Ms. Daviskiba



"LEGO Mindstorms is so awesome! You can design and build the RCX. The RCX is the brain of the vehicle. In order to make it function, you have to program it on a computer." - John Carter

### Mego LEGO

Johnson, Ms. Daviskba



"It's cool to build the car and watch it move in different directions." - Eric Marno

#### **LEGO-Maniacs**

Johnson, Ms. Daviskiba



"[LEGO League]
was the best thing
to happen since
Neil Armstrong
first stepped on the
moon." - Andrew
Bauman

#### Smiths

Johnson, Ms. Smith



"The more LEGO's, the more fun!" -Elizabeth Zieg

#### Fender Benders

Johnson, Ms. Smith



"What a way to guide our students into the next Millennium!" - Ms. Smith

### Dragon Fighters

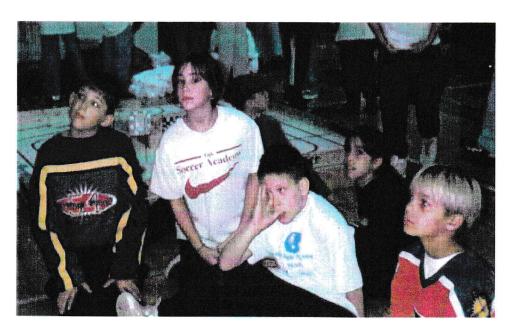
Johnson, Ms. Smith



"When the Dragon Fighters won best car design, we were happy. When we won best school spirit, we were really happy!" - Michelle Hargis

Bonzai

Johnson, Mr. Stern



"LEGO's make me feel good. Oh yeah!" - Griffin Hicks

### Gugamunka LEGO Gods

Johnson, Mr. Stern



"It was really cool how the cars worked and moved around the track!" - CassieRush

The Bolts

Kurtz, Mr. Lutz



"It was fun looking at all the different pieces and putting the car together." - Stephanie Chapman

#### Road Runners

Kurtz, Mr. Lutz



"Our team's cheer was 'Let's go Robo!' " -Justin Canoy

### Hyper Viper 2000

Kurtz, Mr. Lutz



"I think the robotics was fun. I learned how to work the computer and put cars together." - Kim Bartscht

#### Mad Bomber

Kurtz, Mr. Lutz



"I really liked how my team worked together." -James Veen

### The Sprites

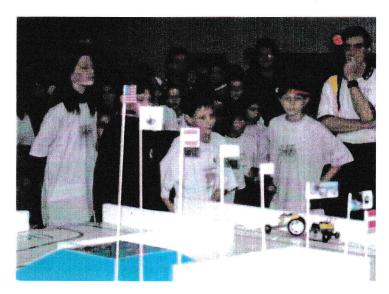
Kurtz, Ms. McFarland



"One of the best times in robotics was when we had our competition in our school gym." -Morgan Flees

#### The MindStorms

Kurtz, Ms. McFarland



"I remember when our car kept falling apart and our group was so frustrated. We kept going as a team though." -Rachel Conklin

### The Beepers

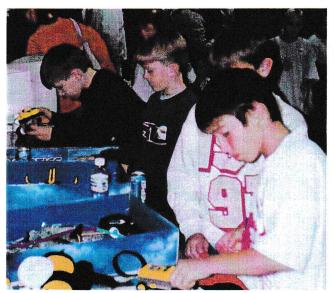
Kurtz, Ms. McFarland



"It was an extremely positive and energizing experience for all the children on many levels of learning. The teacher should be commended for their dedication, enthusiasm, and creativity." - Mrs. Zusuwa

#### Dynamite

Kurtz, Ms. Vezina



"I liked designing the robot the best. It was fun and challenging." -Danielle Powell

#### Robotions

Kurtz, Ms. Vezina



"LEGO League taught me to have more confidence in myself." - Ashely Falkner

#### Firestorm

Kurtz, Ms. McFarland



"LEGO League taught me to always keep on trying and to just put my mind to it and go." - Ashely Wesenberg

### Scorpions

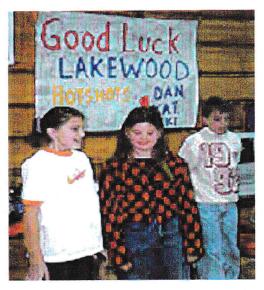
Lakewood, Mr. Schwaniger



"Robotics was a fun and educational program that I and other people loved doing." - Philip Paquette

#### **Bumble Bots**

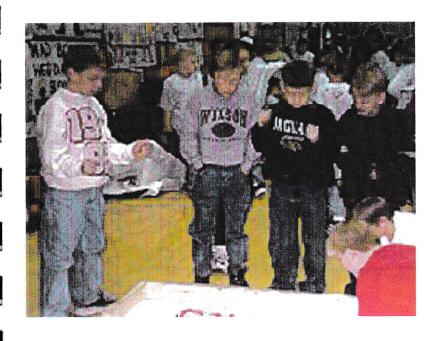
Lakewood, Mr. Schwaniger



"All the mentors were really nice. They helped us out a lot." - Caroline Borkowski

#### Robo-Maniacs

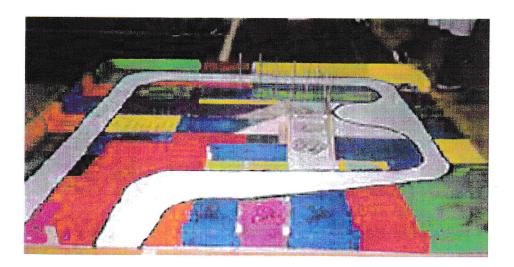
Lakewood, Mr. Schwaniger



"We always tell the robot, 'Slow down! You're driving like a maniac!'" - Bill Hamby

#### Techno Tanks

Oxbow, Ms. Grant



"It would have been a good idea if we had just built a model and stuck with it." - Tom Haller

#### The Great Gecko Force

Oxbow, Ms. Grant



"In the beginning it was hard to keep the group together and to be good sports, but by the end we were really good at it." - Danielle Bostwick

### The Spirals

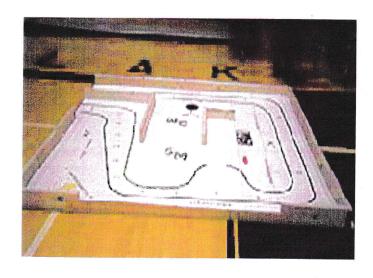
Oxbow, Ms. Grant



"The LEGO League program is truly outstanding." -Ms. Grant

#### Thunderbolts

Spring Mills, Mr. Schmidlin



"I wrote a poem about LEGO's.

'A car made is a car to race is a car to win.'" - Louise Elliott

#### **Brainstormers**

Spring Mills, Mr. Schmidlin



"Building a LEGO robot is fun. First you start out with the motor, then you put in the batteries, then you put on the LEGO's and the wheels." - Wade Davis

#### The Bombs

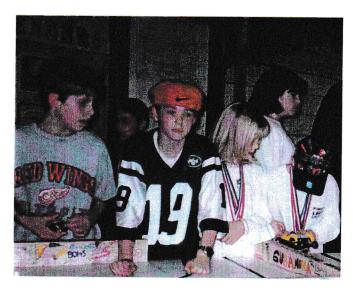
Spring Mills, Mr. Schmidlin



"It was very exciting learning to program a computer and build with LEGO's better." - Katie Sopsich

### Speed Demons

Muir, Mr. Bradsher



"Sometimes it was hard to keep the car together. The LEGO's fall off a lot." - Steve Wilkins

### Lego Maniacs

Muir, Mr. Bradsher



"Sometimes our group would argue about what to do, but we learned to be a team." - Amelia Grate

### Technique

Muir, Mr. Bradsher



"Not only did LEGO League teach us teamwork, it was fun, too." -Frank Coakley

**Demons** 

Oak Valley, Ms. Rowley



"I learned a lot about team work." - Bryan Barker

### Lego Masters

Oak Valley, Ms. Rowley



"I learned about computer programming, and that was very cool." - Dean Caldwell

Chaos

Oak Valley, Ms. Rowely



"It was fun, educational, and interesting. I would recommend doing it." - Anthony Waterson

PANE O - POYCHOEF 16, 1004 - DARLARD THER NEWS

# **Robotics Competition Expands** To Include Younger Students

Science, LEGOs Combine in this FIRST Competition Spin Oif

# Lego program helps children expand skills

OR THE LEGICIES HANDLESSING CONTRACT 1934

# Teachers use Legos as educational instrument

By Courtney Sullivally

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that for a mean of Hubin Valley teachers, they are learning how o ise than as an edicational instrument

Chily agait second distress in the matten knee been selected in pertiopate in the NRST Lego League

- and 35 fifth and cighth graduce in Ruton yanoy Volley will by among

insperator and -

Huron TERST (For Schools

Lego League teaches teamwork, new skills

By Courney Sutherby

With the texts suggested the to underway. With and callib. tended a way to create s. abor that and the neuro than cleans always have to be for

Teams of students are lego innot the said.

Mechanism that is build small innot that said he prompted that said he prompted the said of the bonsais seat of the point of the bonsais seat of the point of the the lego united he are

a lot of sepaing but we haved-ly worked out.

The solid project is some thing user than just reading the of a book, she said. The learning that lecknology with I can be used for play

Lego learning projects help kids

The media seems to love covering large events occurring for the first time, especially when they involve children. The HOT SHOTS Havoc was no exception.

#### Spreading the Word

When you are excited about something, you want to share this excitement with others. The HOT team lives this belief by sharing their stories with all who will listen. From a visit to the state capitol, to informing the governor, to... the list goes on and on. The HOT team has a story to tell and if you stand still you will hear it.







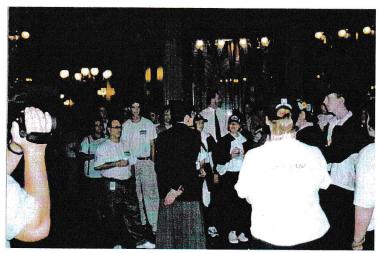


















#### MICHIGAN HOUSE OF REPRESENTATIVES DAILY CALENDAR

TURSDAY, SEPTEMBER 21, 1900

MOTIONS AND RESOLUTIONS

#### **HOT Team** deserves accolades

Last week, the thurst Valley Schoots and Ceneral Motors Milkert Prixing Centeral rob Co's irsun, the Horop Of Tonorow (EOT) were given a special tribute by state Sep. Naticy Cassis, state Sep. Edi Bullanti and Gar. John Dagler. Cassis and Bulkird presented the tribute to the tenni.

as Its Capital Building in Landing on Sept. 22. The HOT team arranged to have FIRST [For Inspiration and Recognition of Science and Technology) teams from across the state most them in the rotunda of the

builting to display their robots used in companion.

One of the many massins HOT was honered was far their outsimeding intrinsics at both the regional and material lesist, in the count inducts competition, the learn never finished in loss than fourth place. They store also a rancer-up for the prestigious Charman's Award, garn in the found that less displays purion: ship between corporation and school and best displays the goals of MRST with an their community.

The DOT team has been working on the robotics

project since early 1997, but IMEST has become more lum had a crangetilles.

Lost year they started the FiOT Shate program, in which they worked with lifth and eighth goale closes. to encourage problem solving creative thinking and a genutive interest in the field of science and technology. The HOT Stats were given a hands on opportunity to apply what they lainned, then were availed to cheer the exert on during their regional competition at Eastern Michagan University:

Startigan Crawsis;
The year, the Bries's organization has chosen Huren
Valley Schools as a pilot district for the first Lego
Laugue. The Lego Lougue program will involve 435 8th
unit eighth gaders and that feachers. Pournees from
the Proxing Grunnd, as well as 1007 stackent learn
members will work with the classrooms as menters in the program. Teams of students will design their own Leap robot, using their computer to program it. Every usen their less their mint our the some masse to a

oscipolikei. The HOT Team also encourages community involvenot rean assertionings community processing deploying their EXTEX at overest such as the Milited Fourth of July Bunds. They set up a physical bild or Carlad Pack and in Auto Tourannisty members to "lest drive" the robot they used by competition.

Last year, the constrainty helped the HOT Team travel to their competitions in Orlando, Chicago and I women by many over \$30,000 through find manny

The form opened a afterfront on Main Street for holday shopping, beld a garage sale, a chiner-dance and short maxim, and put on a Haramed House at John-

an Mercentage.
The PATT Translations strongly in plot gloric in the community that supports them. They have whan-tered for many acceptes such as the Moron Rher-Clean-Up, mash detail at Millard Moronics and most recently, adopting a stretch of rood between on Con-never briwing Buildar Bank Bank and Helmay Singer

If would be almost impossible to list everything that

this mean has been involved with.
All of the boars that leachers, students, pairents and
caginets are being recognized by representations of
Memory and members of our community. They have turned a three mouth project into an entity that not only trapical students to become interested the fields of sources and traincology, but has brought together a dure group with a morner grid — to be the lest ef-

#### DIRECTOR BLADING

#### **Huron Valley HOT Team** receives honors at Capitol

By Couriney Sutherby

Last week, the Bereas of Tomor per vers given a special behave by area by meaning. The HOT beam, Buron Valley Scheeley Courted as Marion Million Proving Ground's closure team, heated an event at the Capital Pauling in bassing that Astorred aduate from arrives Astronom etc. Beaching in bassing the Astrophysical and Rectangular in First 18 of impression and Rectangular in Easter 18 of impression and the Court of Sensie and the House. Sensie and the House of Sensie and the House

retoils in the rocumda for members of Senate and the House.

This is a special day in house of all you've dence," and state Rep. Mixey Cassis. R-J88th District. This is an excellent Seam, and year that ye the Heroes of Tomorrow.

Cassis sead that use of the reasons after the properties of the same because of the opportunity for the head of the case of the opportunity for the same because of the opportunity for the same seame of the opportunity for the same seame of the opportunity of of the op

Catalo and state Sen. Dill Bullard. It 15th Deserte, presented the 180T seam with special infector that they signed, along wall Gire. Julia Englis. Cases veld Signer is

dahr Engin. Casas and Signer's a sorsay supporter of the entire Process tolerate program.

One of the reasons not was hardeness, for the light schoperment, foresteing four in the natural position for allowed position of the carring the foresystellite for the chairman's absent of the chairman's Award is given to the case that treat discovering the partnership between responsible and administration in the case that treat discovering the partnership between responsible and administration in the community and administration in the community and administration in the community and administration premium the goals of PESCI.

PINOT.

The team Day quackly proven their ability in competition and discover recognition for liter out canning achievements, "Capada caid. They have tarned the

respect of the science and estimated to tobacky changed their calmi, commonly their calmi, commonly and indications.

Sofficial staff the betteves this improve a responsive for situated. A program that this gets Blds severed about the fined of colored and feelingley, he said.

Students in this country are weak in the areas science and technology, compared to students in other constitues, bullard said. The FIRST mergram great the single hands on learning experience in three fields.

Casais and Bullard introduced students from the FIRST program that the students from the FIRST program that the fields from the FIRST program that the fields of the calmider of the ca

PERST program for its contribution to the educational system. Dove Dorian. representative from PIRET's headquarters in New Hampahire, accepted the inbust on the organization's behalf,



FIRST honored

State feet. Namy Casats, follow procedual to successfully. FIRST ,For inspiration and Heodyntion of Science end Technol-ogy) Hobotics team with a special congressional acknowledge-

medi for the work they are doing. The distriction to Lunsing last week for similar honors.

#### MICHIGAN SENATE

September 22, 1998



GM Proving Ground - Huran Valley Schnik FIRST Robotics Team Gorald M. Wilson - Communications Manager 3100 General Motors Read

Team A (E) 4 Street City, MI 1324

Desa Michigan FIRST Representative:

Webcons back from a arithdesexual back. Namy Cresis and some posturance has been another mengine the PIRST organization by a Legislative Resolution. We would like to confusily made yes to come and display your robot of the event of the Capital Building in Lancing on Fursday. September 22, 1998. We will have a small recognise for all legislature. price to their I p.m. medien

Milford, Michigan 48180-1726

into well be an outstanding opportunity for all Machigan feature to show of all over dedication and hard work. Due to space limitations in the Related such team's display will be limited to their mixe, a small casel and no more than five team represeninterest. Although we streamings you to recognise your feature occomplicationities, no large displays of tables will be permitted. Flasse allow ennagh time in have your indicesed up by 7 Mann. To achieve the maximum season, of publicity all robot exhibits storeld remain until 5:10 p.m.

For planning purposes, a letter of commitment or experts must be received by September 13 with the number that will attend. Also, legal delignature require you to submit a copy of confeati increases at this time. The HOT team will complicate off market vanimedity aspusu sull builli, of elde od liew neet equit of

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#### State Legislature Recognizes HOT Team



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#### Cassis recognizes high school rebotics team

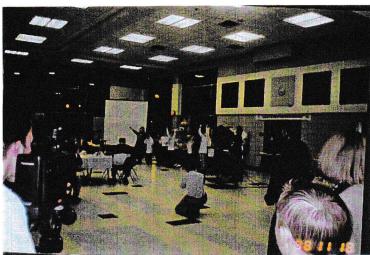
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#### Entertainment

Lakeland High School Instrumental Group Robert Green, Director

Milford High School Center Stage Performers James Cutty, Director

#### Acknowledgements

MHS Leadership Students & National Honor Society for greeting & serving  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ 

Table centerpieces by LHS Students

Carol Beith, Chairperson, HVS Art Council

Decorations by MHS Basic Classroom Students

MHS Custodial Maintenance Staff

HVS Food Service Staff

Five Lakes Grill

Bogie Lake Greenhouse

Colasanti's

Rudy Cender, HVS Career Technology Education Facilitator General Motors Proving Grounds, FIRST Program



#### Oakland County School Board Association Presentation

What a wonderful feeling it is to be asked to share information on a project that has had such a big impact in our lives. This recently happened to the HOT team. Our school board was so enthusiastic about our program, they featured the HOT team as the highlight of the Oakland County School Board Association dinner and bimonthly meeting. We were asked to do a presentation of FIRST and the HOT team. Originally, our advisors were going to give the presentation, but they decided the biggest impact would come from the students. Thus, eight students stepped forward to do the project.

On November 18th, the presentation took place in the Milford High School cafeteria. We had a chance to tell members from 28 school districts about the FIRST organization. We talked about the program in general, our robot, our truck, our cart, our animation, our chairman's group, our community outreach, our parental involvement, and our HOT SHOTS program. Members of the HOT SHOTS teams were also present to demonstrate their LEGO robots after the meeting adjourned. The teachers and engineers fielded questions after the student speeches (and also provided moral support). This was all taken very well, in fact we helped to inspire a new team. The representative told us he was definitely impressed and was going to help start a team in his district.

This presentation was also a valuable experience for those members speaking. Huron Valley Schools has a new superintendent for the district and we were able to meet him at this event. The assistant superintendent, who does the hiring for Huron Valley, was also present and offered two team members careers after college.

Once again, the HOT team was able to reach out and educate individuals about FIRST.

#### Recruiting

One of the ongoing projects of the HOT team is the recruitment of additional corporations and schools. Education is the key to successfully reaching these individuals. Thus, the team constantly promotes the mission and goals of FIRST through various activities.

One route the team has taken to educate the surrounding area is to host assemblies, school board presentations, and participate in corporation sponsered events. From these promotions the team has recruited two new groups, the Ford Motor Company/ Warren Consolidated and Macomb Intermediate School District and L'Anse Cruese School and Utica Community School and Frasser High School, and the second group is TRW/ Walled Lake Western and Central High Schools. The team also indirectly contributed to the formation of seven other teams. A tremendous amount of work went into this process with many members of the team joining forces to inspire, educate, and communicate with these new-found FIRST competitions.

Another route currently in the works is to reach not just the surrounding community but to spread the word of FIRST across the nation. Two student members of the HOT team have written a recruitment packet which was sent to 250 organizations encompassing all 50 states.

This packet contained a letter explaining FIRST, its goals, and most importantly its impact in student's lives. A calendar produced by the GM Powertrain and Pontiac Northern High School team and a schedule of competitions was also included. Hopefully, this endeavor will spark the interest of one of the organizations so a new team can be formed for the year 2000 competition. If not at least these organizations are now aware of FIRST and have heard about it from the most important source, the students!

The HOT team is constantly searching for new and innovative ways to reach the community and share with them the profound effect FIRST has in all individuals involved with the team. This is an ongoing mission throughout the year and who knows, what route the team will take next.

#### "I hear and I forget. I see and I remember. I do and I understand." - Confucius.

Dean Kamen, founder of F.I.R.S.T., must have communicated telepathically with Confucius in order to create such a gratifying program that is based on the above logic. F.I.R.S.T. (For Inspiration and Recognition of Science and Technology) primarily focuses on teaching young adults through hands-on experiences. At the same time, they are having fun and being introduced to the excitement that lies in science and technology.

F.I.R.S.T. is a robotics competition that has proven to be more educational, inspiring, and helpful than any other element in a school's curriculum. Each team receives a gigantic kit of parts and the objective of the game, and then they go to work. With in six short weeks students and engineers collaborate to pick a strategy, design, build, and test a robot. These young adults learn through their own mistakes, why certain things would not work, rather than watching a demonstration or another form of the typical learning process. Allowing them to work out problems themselves teaches them more than is imaginable.

Why should you become involved? Hopefully this letter will explain why F.I.R.S.T. is more important and more valuable than any other educational program you could be a part of. Today's youth are becoming more and more eager to learn, but the greater the amount of textbook information pushed on us, the less excitement we have.

We have learned what it is like to be involved with science and technology: excitement, challenges, disappointments, and a great sensation after your idea succeeds. We now understand how a real work place functions. But, more importantly, we have decided we want to become involved with hands on learning.

What F.I.R.S.T. is will always be easy to explain, but the importance of F.I.R.S.T. and why you should be involved can not be described in a few words on paper. To truly understand the impact this can make on your future workers, graduates, and/or students, I encourage you to contact me personally or attend one of the competitions near you. Thank you for your time and hope to hear from you soon.

Sincerely,

Johanna Sephenson Swah Schumunske H.O.T. team members

#### Keeping the Byways Beautiful

To show thanks to the community for all that is done for us year round, the HOT team adopted a two mile stretch of Commerce Road in Milford. By adopting the road the HOT team commits themselves to clean the road twice a year..

For the first clean up, we were in for a surprise. Cleaning two miles of road in the hot sun is a lot harder than it looks. Despite the hard work, heat, and trash. We prevailed and helped to make our community a better place in which to live. The community is constantly reminded of the project, by a sign on the side of the road that states: NEXT TWO MILES THE GM & HV SCHOOLS FIRST ROBOTICS "HOT" TEAM.





# 100+ dig in to Huron River

Courtney Sutherby

#### **Huron River Clean Up**

What does a FIRST team, a rotted Lincoln seat, two water logged picnic tables, and algae covered Nike tennis shoes have to do with each other? A river clean up.

On August 15<sup>th</sup>, several HOT team members eagerly participated in the local Huron River Clean Up. Participating in the 12<sup>th</sup> annual river clean up was one of the many ways we decided to give back to our community. Many different things were pulled out of the river; including a kitchen sink, a bike, a car seat, and a picnic table. Also, helping with the clean up was U.S. Representative Joe Knollenberg.



All enjoyed their day; one GM employee spouse said, "I felt like Audrey Hepburn in the African Queen."



I Fland lasts a truck full of truch that follow valuations collected in the river.



#### Milford Memories

In our ongoing pursuit to give back to individuals, businesses, and general supporters, the HOT team took to the streets during the 7th Annual Milford Memories Summer Festival. The Historical Society of Milford assigned the team tasks to keep the streets beautiful and to direct visitors to the Festival's different areas. This event took place over a two day period, August 8th and 9th, and over 60,000 people attended. That's a lot of directions! This was our second time helping with the Festival and once again the team was successful in its pursuits in giving back Miltord Memories

to the community.



#### **RIVER** RAFT RACE

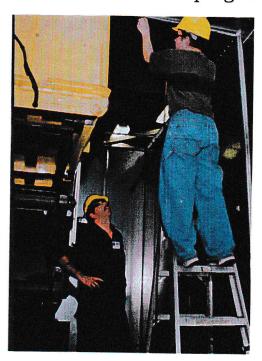
Summer Festival

As part of the Milford Memories Summer Festival, the HOT team participated in a raft race. Many team members met during the days before the festival to design and build a raft featuring a miniature playing field and the robot itself. Six team members manned the raft during the race. They had to steer around bouys and throw frisbees in addition to paddling. The HOT team performed well placing third in their division. Once again members were successful in their team effort and had a fun time as well.

#### A Need Was Met.

Working with remote controlled robots can lead to unexpected situations. FIRST encountered one of these problems during the days leading up to the Great Lakes Regional at Eastern Michigan University last March. Word was spread by FIRST asking for assistance. When the HOT team learned of the need for a spectrum analyzer one was found in the Electromagnetic Compatibility Laboratory at the GM Milford Proving Ground. The analyzer was delivered in time to assist in the preparation and contributed to the success of the regional. Realizing the analyzer was also needed at the National Competition, the HOT team gladly transported the analyzer to Florida for FIRST's use.

During the off time, the HOT team learned of a need for a screen room at FIRST's home location in Manchester. This room would help with the safe testing of control systems, transmitters, and receivers. Upon searching the Proving Ground one such room was available as upgrades were being made. This was donated to FIRST hoping to fill their need.





#### GM Honored At the Banquet

This year at the HOT team celebration banquet the Huron Valley School Board members and school administrators were invited to join us. After all the team speeches were made and awards were presented, Ms. Carol Borich, School Board President, stood in front of the crowd and called attention to the General Motors Proving Ground. The Huron Valley School Board sponsors an award called the HVS Board of Education Honor Roll award. This honor was given to the Proving Grounds for their excellent contribution to the school system. The GMPG was the first business to be bestowed with this honor. This award is presented to individuals or businesses for their outstanding achievements and contributions that have had a significant positive impact on the district. Ms. Borich and the entire school board were proud to give this award to the Proving Grounds as Ms. Borich stated, "It's a wonderful opportunity for students to be mentored and exposed to science and technology through a hands on learning experience like the FIRST program. Huron Valley Schools is pleased to partner with GM Proving Grounds to provide these unique educational opportunities for students."

#### FIRST At The Top

1998 was an election year in the State of Michigan and candidates seeking office were often seen in Milford pursuing votes. One such candidate was Incumbent Michigan Governor John Engler. On September 17, Governor Engler addressed members of the Huron Valley and Lakes Area Chamber of Commerce at a local meeting facility. In attendance was Milford Township board member and HOT team advisor, Tom Nader. Mr. Nader had the privilege of meeting the Governor and took that opportunity to share the message of FIRST. He presented Governor Engler with a copy of last years Chairman's award video and book.

The following week, Mr. Nader received a letter from the Office of the Governor in which Mr. Engler thanked him for the video and book stating that he looked forward to viewing all the material. In closing his letter Governor Engler stated, "By assisting those who would engage in a relentless pursuit of knowledge, Michigan will help in creating the "Heroes Of Tomorrow." This was the desired response as one of the goals of the team was achieved by taking information about FIRST to the highest level in the state of Michigan



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Photo by SCOTT BENEDIC

# Welcome to www.hotteam.org!

Your source for all Huron Valley Schools HOT TEAM info



1997 Season



#### HOT WEB

The Huron Valley HOT Team can now be found on the internet. In late fall the HOT Team developed their own web page. The page includes information about the team, pictures from team activities, participation within the community, and updates for the team members to take note of. Daily messages and reminders are posted to keep the team on track, and to keep the team moving forward. The HOT address is: <a href="https://www.hotteam.org">www.hotteam.org</a>. So stop by and check them out!

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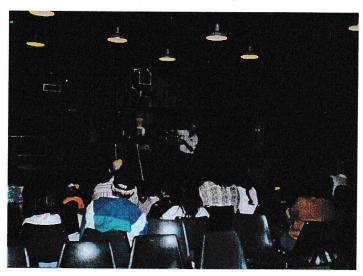
#### **Cub Scouts**

It seems easy to excite cub scouts. Show them something exciting and they go wild. That is what the HOT team discovered on September 15 when they demonstrated the HOT BOT to Pack 192 of Davisburg, Michigan. About fourty scouts and their parents attended as the team picked up balls off the floor and lifted them high in the air. And the excitement increased as some of the scouts were given the chance to drive the HOT BOT. As the evening ended another group discovered the excitement of the FIRST









#### Pinckney Assembly

Due to the success of assemblies from the past year, the HOT team sent letters to area elementary and middle schools expressing the desire to share the FIRST experience. One such response came from Pinckney Elementary School. Team members and the HOTBOT put on an assembly for five fifth grade classes containing students all interested in learning about the many new horizons the field of robotics has to offer them. The team brought the previous year's robot a model field plus a video of the 97-98 season. The students were enthralled during the robot demonstration and it was easy to see the excitement in their faces as they understood exactly what science and technology had to offer. This furthered cinched our teams belief in community outreach as a way to broaden the minds and interests of a younger generation. The team felt that by bringing this awareness to the community, the minds of the future engineers and robotics team members were broadened.

Chief Delphi

If you ask most people where they usually are at 6 a.m. on a Saturday morning, more than likely they won't say Pontiac Central High School. I guess that proves the members of the HOT team aren't like most people. Yes, it was early and yes, it was cold, but on November 21st. There they stood, anxiously waiting the Third Annual Chief Delphi Invitational. All week long engineers and students had been meeting, discussing strategy and planning robot construction. This would be the first event of the year where the HOT team really worked as a team. They were no longer either Milford kids or Lakeland kids; for the first time, they were the HOT kids.

For many new members, this would be their very first competition, and what an amazing experience it turned out to be. Never before had they seen so much spirit crammed into one single gym. From banners to bands, pom poms to pop bottle shakers, you name it and it was there. Everyone was yelling and cheering; they couldn't help but be caught up in the frenzy. Other students, not just the members of the HOT team were there to support their friends and the team. It also didn't hurt that the team was performing excellently. Who could complain with a 2nd place finish and the much sought after spirit award (due partially to the stellar HOT band)! The debut of the '99 HOT team was definitely a success. Yes they received awards, but they also had fun and made new friends. More importantly, they became a team.





#### Kokomo Indiana

Returning from Nationals the HOT team realized that their season was far from over, it really had just begun. Upon arriving home the HOT team received invitations to participate in the Kokomo, Indiana Technocats invitational display and the Western Michigan Robotic Invitational at Zeeland High School. While at the invitationals we were given a chance to display our robot, and promote awareness of FIRST. As part of the invitational mock competitions were held. All the HOT team members in attendance got a chance to experience the thrill and excitement of controlling the robot in competition, including a parent chaperone. The HOT team enjoyed the reunion with other teams. It was a time for camaraderie and fun, not solely the competition that had brought us together so many times before. The team members returned to Milford tired, but glad they had participated.





#### Ham-Vention

The conclusion of the 1998 National Competition did not bring an end to the HOT BOT's career. Beginning its demand, the robot traveled to Dayton, Ohio for the widely attended Ham-Vention. This event attracts enthusiasts and dealers from a wide spectrum of locations, including Argentina, South Africa, and Japan. The HOT BOT recognition continued as it was voted the hit of the 1998 Ham-Vention. This event helped over 35,000 people from all over the world learn about FIRST With help from the HOT BOT, the Ham-Vention was once again very successful.



**Auto Shows** 

When a team puts a great deal of effort into something, other people tend to notice. Our truck, known as our HOT Wheels, appeared in two auto shows this year; one in St. Ignace, Michigan, and one right here in Milford. We were asked to appear in St. Ignace by the Chevrolet car exhibit. Over 100,000 people were introduced to FIRST and the HOT team through this event. Individuals were able to walk into the interior of the truck and see our mobile machine shop, along with a display on FIRST and its goals. The truck was well received at the show.

The truck also appeared in Milford's own auto show in late September. While at the event, people were able to look at our awards and learn more about FIRST. The even got a chance to see our robot in action. It was well received by all, including kids who enjoyed playing with the HOT BOT

#### SPONSOR PROVIDIED ACTIVITIES

Being a part of the General Motors Proving Grounds has given the HOT team various opportunities to promote FIRST and to recruit and to educate the corporate world of it's purposes and goals. One such example was the Ethanol Challenge. This event hosted 14 University students and their modified full-size vehicles with a fuel system that operated on ethanol fuel. Another event was the Employee Enthusiasm Assessment Survey Fair which is hosted by GM employee groups to show how the company promotes quality, safety, communication, and teamwork efforts through different processes. Finally the HOT team was asked to volunteer to be victims at the Annual Disaster Drill at the Proving Grounds. This event tested the response time of the GMPG's emergency crews as well as local ambulances and hospitals. All of these opportunities allowed the HOT team to help out and donate time to the corporation and people who have given so much to the team. In addition the HOT BOT and team members were able to recruit new members and demonstrate how corporations, communities, and schools benefit through joint endeavors.







**Craft Show** 

Helping at community events can often lead to The Wellspring Community Church in fundraisers. Highland, Michigan held its 8th annual craft show, on the Saturday after Thanksgiving. For the second year in a row HOT team members participated in this event. The team assisted with set-up and clean-up and in return the minister offered a free booth to use for team fundraising. We accepted his offer not only to raise funds for our team but also to use this opportunity to spread the word about FIRST. The team assembled early to help the crafters as they arrived. After the craft show the team helped the crafters carry their crafts back to their vehicles and tided up the building. This event turned out to be a great success not only in raising team funds but also give the team opportunity to talk about FIRST.



#### Fourth of July

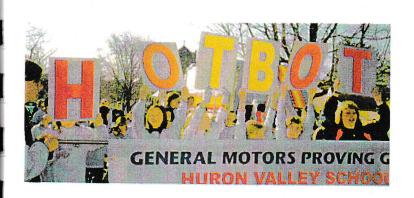
This year's fourth of July weekend proved to be a very busy one for the HOT team. On Friday, the team gathered at Central Park in Milford and set up the playing field. After a long day of set-up the team and families gathered at a home of one of the GM engineers for a party. The next day the team assembled early to participate in the annual Milford fourth of July parade. All though it was raining there was still a great crowd. Young and old alike lined the parade route, applauding their hometown robotics team. After the parade the team held demonstrations all day at the park. The team allowed members of the community to come and drive the HOT BOT. All those that took the time to operate the robot were thrilled as they grasped a ball and lifted it to drop it in the center goal. The team used this opportunity to raise money by selling ice cream to all those looking for something to satisfy their appetite. The event gave the team an opportunity to give the community hands on experience at controlling robotic technology.













#### The Christmas Parade

Once again the HOT team participated in the annual Christmas parade in the Milford. The team gathered on a side street that morning in preparation to march down Main Street. Since this was the second time appearing in the parade the HOTBOT was easily recognized by the enthusiastic crowd. The HOT Truck was featured along with local HOT SHOTS. This was an opportunity to share with the community the growth of the team which included new team members at the high schools, middle schools and the elementary level. This event was also broadcast live on local cable and then replayed later.





#### HOT—Part of the Sounds of Huron Valley

This year the Milford community created a CD to commemorate various community memories titled *The Sounds of Huron Valley*. The CD included readings by poets, tunes by musicians, selections from local area marching bands, and two recordings of HOT team spirit.

The CD was unveiled last March the week after the Ypsilanti Regional. The event was held at the prestigious Mystic Creek Golf Club. Tables were set up giving all the groups on the CD an opportunity to talk to the community about their part. A video presentation of our chairman's award and submission was shown at the booth as well as awards. This night allowed the HOT team to show more people in our community the story of FIRST. Unfortunately, the CD's were unavailable at this time so in mid November, we once again set up our booth. This time we included the HOT SHOTS and the LEGO League. It was a wonderful experience to show in our community the many actions of our youth today.

The Sounds of Huran Valley Value 1

"Wilbur Johnson's Fishin' Hole" by Suzanne Haskew

#### Thanks for the Articles

In January of 1998, the Milford Times hired a new reporter to cover issues relating to education in the Huron Valley district. Courtney Southerby came into the area hoping to find some interesting things about which to write. She didn't know what she would be getting into.

By February the Heroes of Tomorrow had called the paper to report the progress of the robot. Courtney responded to the call and was invited to come see what was happening. As she entered the room she was awed by what she saw--more than forty students from different schools working as a team with a common goal. She wanted to know more. The story unfolded, about FIRST, about the competitions and about the teamwork.

Courtney went back to the office and wrote an article. It was good, but did not really tell the story. The team had problems the previous year in describing to the reporter just what this program was like and it looked like that would happen again. Maybe the reporter needed to see a competition so they would understand. So the team asked Courtney if she would travel with them to the regional in Chicago. After checking with the Editor, Courtney said that she would go.

Courtney arrived early on the travel day and boarded the bus with the rest of the students, notebook in hand. She talked to several of the students and teachers, then set back, relaxed and watched the movie. She didn't know it, but she was becoming one of the team.

At the regional, she walked among the robots in the pits, talked to the people from FIRST, interviewed people from other teams, then it happened again. The notebook was put away and she cheered, she applauded, she danced--the excitement of the competition had made her forget that she was a reporter. She was a student again. She hadn't had this much fun since leaving high school. Then suddenly, on Saturday afternoon, she once again remembered that she had an article to write.

The next week, when the paper appeared, there it was--the article. This time it was different. Courtney had a different understanding of why the students, teachers and engineers were so excited. Courtney had seen firsthand the spirit of the competition.

Courtney has written many more articles, including one that told of her impressions of the competitions. She traveled on her own time to the Detroit regional to be a part of the team again. She wore a HOT shirt and cheered with the team. She came to the team victory party. She even drove one of the cars in the Milford Fourth of July Parade, still wearing her HOT shirt. The team will not say that they have their own reporter, they just have a very good friend that works at the Milford Times. The team would like to give special recognition to Courtney for taking time to learn the true meaning of being a FIRST team member and sharing her findings with the rest of the community. And you can be sure that you will see Courtney at many more FIRST events. She is part of not just the HOT team, but the FIRST team.



#### Milford High School Career Day

A tremendous honor was bestowed upon the animation members of the HOT team as they were asked to present information on a career in Animation for the Milford High School Career Day. This was somewhat of a surprise to the students as the original presenter cancelled at the last minute. The high school administration immediately turned to the HOT team as a replacement. The students had one day to prepare for this presentation. They demonstrated for the captive student audience 3D Studio Max and they also showed the animation submission from last year. Questions were answered about the HOT team and FIRST in general. What a tremendous opportunity to share with others the wonderful impact FIRST has had on their lives.

> MILFORD HIGH SCHOOL . HURON VALLEY SCHOOLS 2780 S. MILPORD ROAD . HIGHEANO, MICHIGAN 48357 . (248) 884-2091

Josh Goodrum Computer Animation Team

Dear Jose.

Thank you so much for your help on career day, sorving as a speaker on camputer antimetion. I want you to know what a positive part of this project you were. You and the rest of the student speakers, provided an excellent learning experience for your fellow students. The fact that you were so willing to help in any way needed, made the morning enjoyable for our students and made me thankful for your presence.

I have always believed that the students at Wilford High School are exceptional Thanks for showing that to the students, staff, and other guest speakers

As a student leader, you have done or many positive things for the achool that Mr. Gilbert and I felt that it was appropriate to thank you for this and the many other things you do in some small way.

Enclosed is a movie pass for the Waterford Cinoma 11 or the Brighton Cinemas. It is volid for one admission either during the day or in the evening. During 'no pass' showings (usually the first two weeks of very popular movies) the pass may be used for full admission to malinees or for \$4.50 toward the price of an evening admission.

I want you to know that the pervice you provide to our school and to our community is appreciated very much by many people. Again, let me personally trank you for being there to help when you were needed.

Sincerely.

Mrs Pipkin

Karren Steph in

BOOK JURIOR FRANCH KINGGODS Residual Project

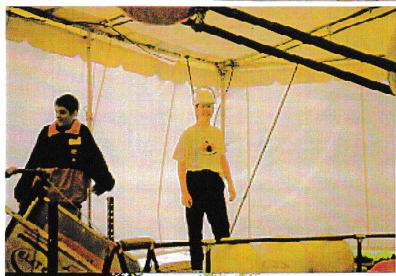
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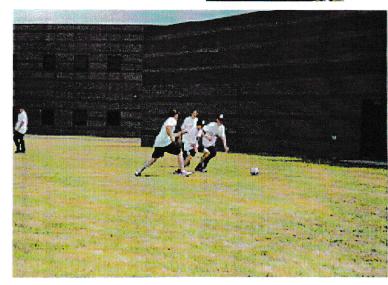
Study & Mark

Through our effort to spread the word of FIRST, we've developed a very strong bond with our community. They've become our biggest supporters and our loudest fans. We would like to thank them for their continuous encouragement and constant help. They will always be heroes to us.









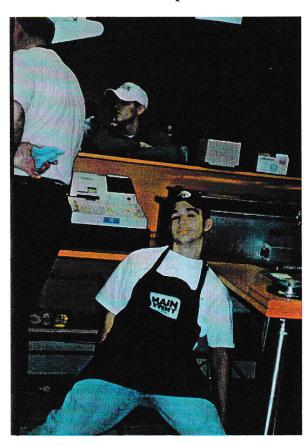


#### The Silverdome

It 's a well-known fact that sending a person from point A to B requires money. When you send 40 students, plus their teachers and advisors, supplies and luggage four different places, it requires a lot of money. That's why fundraising has become a way of life for the HOT team. This year the team tried a new way of raising money. On four different nights throughout December and January, they worked in the concession stands at the Pontiac Silverdome. Parents, engineers and students alike donned aprons and paper hats to become the fastest hot dog making and pretzel baking stand in the Dome. They also got a chance to steal a look at the Motor City Bowl and Monster Truck Rally.

Perhaps the most enjoyable day was when the team worked at the Lion's Kids Day. Underprivileged children from around the Detroit Area were given the opportunity to bring a smile to a weary mother's face.

The team worked hard but also had a lot of fun. When else do you get a chance to squirt Nacho Cheese on your teacher and not get in trouble?







#### The Halloween Party

The 2<sup>nd</sup> Annual HOT team Halloween party spooked the community on October 23 and 24<sup>th</sup> at Johnson Elementary. Due to the positive support from the community the event was extended to two nights this year. Saturday began with many hours of preparations. Decorations were hung, games set up, wind tunnels created, and the forest haunted. Many were dressed up in costumes of cowboys, princesses', dragons, and spice girls. They had their faces painted, played the beanbag toss, and pinned the nose on the pumpkin. The haunted forest sent many screams echoing through the woods. There was also a concession stand that sold Halloween goodiescupcakes, cookies, candy, and pizza. Once again the HOT team was overwhelmed by the support of the community as this served as the first major fundraiser of the year. This event symbolizes the joint partnership we have with the Huron Valley community.

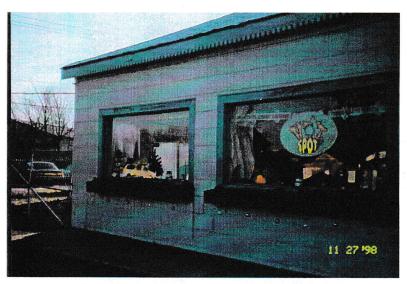






#### **HOT SPOT**

The HOT team opened the doors to the annual "HOT SPOT" on November 27<sup>th</sup>, to raise funds for the teams travel expenses. This year's HOT SPOT was located in downtown Milford at the corner of Huron and Main Street. A local business owner donated the use of the building to the team. The team sold craft items donated by community members, HOT team memorabilia, and also provided a gift wrapping service. Live Christmas trees were also sold, and we donated some to less fortunate residents of Milford. The HOT SPOT was operated by parents and students and proved to be another successful fundraiser.











### Cupid Helps the Hot Team

One of the largest fundraisers for the HOT team is the annual Silent Auction/ Dinner Dance held in conjunction with Valentine's Day. The Parent Boosters group organized this activity, and once again it was an extremely successful event. Various companies in the Huron Valley Area made donations for both a live and silent auction. Attendees were able to bid on items, dine on a buffet dinner, and dance the night away.











#### ALL WORK AND NO PLAY

Don't let anyone ever say the HOT team is all work and no play. The team enjoys doing all kinds of activities together. HOT team members came together to celebrate with two of the advisors at their wedding. The banquet was a time for fun and celebration as the team celebrated its accomplishments from the past year. To help welcome new members, team-building nights were held to ease the adjustment period. The team also gathers for other various reasons, such as watching the ESPN video and farewell parties. These activities provide opportunities for team members to socialize and have fun together yet at the same time team spirit is building making the HOT team even stronger.









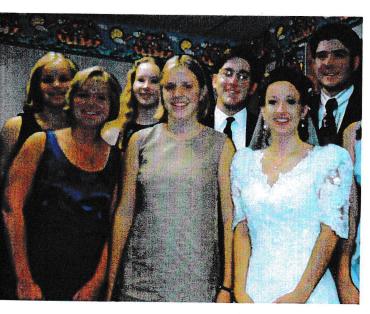
#### The Wedding

Through FIRST and the HOT team, two people were introduced into a life of happiness. Jennifer Bonham, biology teacher at Milford High School, and Robert Swierkos, physics teacher at Milford High School were both advisors on our 1997-1998 HOT team. Through all of the hard work, dedication, and time they had to put in, the two began dating. They dated secretly for seven months before becoming engaged on April 22,1998. Throughout the year HOT team members suspected the two even though they constantly denied it. They had that special look in their eyes and it seemed they were always together. If we handed Mr. Swierkos a picture of her he would grin; when we asked Ms. Bonham about her boyfriend she would start giggling. They were in love and we all knew it.

The couple was married on Saturday, September fifth, 1998. HOT team members attended the ceremony to both support their teachers and to finally see the two of them officially together.

For their honeymoon the couple traveled to Jamaica and a funny thing happened there. Mr. Swierkos was wearing our HOT team shirt when a couple stopped them. The couple was also part of the FIRST program, as they were engineers on a team from Colorado, and instantly knew who the HOT team was due to the FIRST competition.

The couple came back to be advisors on this year's team. Our team can say something not many can, we helped two very special people get married.





#### **Team Building**

In order to be the team we have become, we have gathered numerous times throughout the year to get to know each other better. The first team building night was held in the Milford High School gym. We had friendly competitive games of volleyball, basketball, The second team football, and hockey. building night was at Wellspring Community Church. Everyone was involved in singing, friendly and games, board dancing, conversation. In addition, the ESPN broadcast of the National Championships was re-played. These events have brought old friends together again and built new friendships. Only proving to promote teamwork and togetherness that makes us the team we are.





### Banquet

In late May, the HOT team gathered to formally celebrate the accomplishments of the school year. The dinner was held at a local banquet hall. Students, advisors, and parents were present, along with principals from both Huron Valley High Schools and members of the Huron Valley School Board. Many awards were passed out as the evening progressed, including mock elections. The biggest award was given to GM by the Huron Valley School Board. It was then announced that two advisors were engaged. The program concluded with the showing of the year end video. It was a great night for everyone to relax and celebrate after our best year yet.





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The Huron Valley HOT Team would like to thank the following contributors for their support in making this years season a big success!

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#### **ACKNOWLEGMENTS**

# The HOT teams Chairman's submission was designed, created and produced by

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