## Lake Orion Students Ready for FIRST Robotics Competition

by Irena Granaas

An Oakland County high school team of hopefuls 40 students strong is among about 19 schools from around the Metro Detroit area who are hastening to perfect their robot entry for the 2013 FIRST (For Inspiration and Recognition of Science and Technology) Robotics competition.

Students at Lake Orion High School have until mid-February to complete the build and programming of their robot. Team number 302, the Lake Orion Dragons, must survive state and regional contests before they can go on to the national championship, slated for April 24-27 in St. Louis, Mo. Like the other local teams, the Dragons have received a \$6,400 grant toward the robotics contest from the Chrysler Foundation. The grants help offset the costs of participating such as materials, registration fees and team apparel.

Pat MacIntyre, a department head of the Industrial Tech Department at the high school and key mentor to the school's FIRST Robotics team, discussed the team's progress in a recent interview. He is working closely with the head of the team. John Paul Christenson. MacIntyre said originally in 1999, the large car plant forum from Chrysler sponsored the school's FIRST Robotics teams exclusively.

"For a number of years that's what really got us on the map, so

that got the program on its feet,' he commented. "Since about 2004, the Chrysler Foundation has continued to donate money, even though the economic times got hard and a lot of things got cut back, the Chrysler Foundation has continued to support us in the program, and we really appreciate that.'

MacIntyre said Christenson "has really taken over" as head coach and his leadership has helped the team grow. He also has a knack for inspiring adult volunteers. Currently the Dragons have between 12 and 15 adult mentors helping them prepare their entry.

Nationally, students received their game package on January 5th, which includes a game book, rules, and a description of what they have to have their robot do in order to score points. Boiled down, the robot must climb up a tower and retrieve discs, then throw them into a basket, or shoot and sling them into goals set up on a playing field.

Students are divided into teams, including: A power team; a manipulation team; a programming team; an electronics team; a strategy team and a business team. Participants learn marketable team-building and collaboration skills during the process.

"The entire team has to come together to a common understanding of how to approach the problem," said MacIntyre. "As of



Pictured left, in dark shirts are Pontiac and, right, Lake Orion members of the 2012 OCCRA champion team.

late John Paul Christenson has organized a JV and a varsity level of robotics after school, and I'm able to get a lot of students from our engineering program to participate in programs after school, and it's really been beneficial for the students.

To give an example, in the fall there's an Oakland County competition where we have to build a separate robot right off the bat in the new school year, and our team built the robot in our classes. Then we collaborated with the FIRST team and we won the county championship with the Pontiac School System as an alliance."

That is the OCCRA (Oakland County Competitive Robotics Association) contest. The Web site has photos of the 2012 champi-

onship Lake Orion/Pontiac team. "What's really nice is it helps

students get ready for the bigger competition that kicks off in January," he said. "What I think is neat about our program is we work with the after school program team so that we can contribute to students who work in the schools but maybe can't get directly involved in robotics.



