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Q.C. ELITE ROBOTICS TEAM NEWSLETTER

The Drill Press

Aim High!

By A.J. Damewood

The 2006 FIRST Challenge kicked off on January 7th, 2006. All participating teams attended one of the kickoff events at various locations. This year we attended the Chicago kickoff at Illinois Institute of Technology or IIT, with ten QC Elite members traveling to the event. At the kickoff events each team receives instructions on how to play the game and a kit of parts that they can use on their robots such as wheels, gears, motors, etc... This year's game is called "Aim High" and plays sort of like basketball. There are six robots on the field at a time with three on the blue alliance and three on the red alliance.

There are four periods during the game with the first being an autonomous period which is ten seconds long. During this period the robots run under program without operator assistance. The second period is 40 seconds long. Whichever alliance scores the most points during the autonomous period plays defense, and the other alliance plays offense. The third period is also forty seconds long and the alliances switch from defense to offense, and vise versa. Offense is where you score and defense is where you try to stop the other teams from scoring. When your alliance is playing in the defensive mode only two robots can play defense and the third robot must stay behind the center field line. The last period is forty seconds also, and you can play either defense or offense.

There are three ways to score. The first is herding balls into either of the two corner ground goals at your opponents operating station with each ball scoring one point. The second is shooting balls into your goal above your opponents operating station with each ball scoring three points. The third is getting your alliance's robots onto the platform by the end of the match. One robot on the platform is worth five points, two robots are worth ten points, and three robots are worth twenty-five points.

On Sunday January 8, 2006 QC Elite had their kickoff event. During the event our lead engineer Ed Wegscheid presented the 2006 challenge to the team. We then started to think of what kind of robot we wanted to build. We talked about different types of drive and steering systems such as crab steering and three wheel drive systems. We decided on a robot with the three wheel drive system because we thought that it would be best for this year's game. We then discussed different pick-up and shooting systems. To shoot for the high goals at each end of the field, two parallel high-speed belts will be used.

Bald Eagle Days by Chelsea Roberts

On January 7th and 8th, QC Elite Team 648 took part in Bald Eagle Days with FIRST Lego League. Bald Eagle Days is an event to help inform the public about the environment around the QC area.

Team 648 students and mentors volunteered to work different shifts to help promote the team. In the given area, students ran the 2005 robot and the EDU/Programming robot and there was also information on the team including newsletters, pamphlets, videos, and a Community Outreach board. The team sold pens, flashing jewelry, and Hy-Vee coupon books to help raise about $575 in funds. The team also held two 50/50 raffles. Rick Burkland won $70 in the first 50/50 raffle and Ryan Adair won $15 in the second 50/50 raffle.

Participating in Bald Eagle Days helped raise awareness for the team. Many companies were interested in sponsoring or getting involved with the team in some way. A lot of home-schooled students were very interested in joining the team. All in all, Bald Eagle Days turned out to be a success.

Down at Ken-Tronics by Carl Pierce

At Coyne Center, the media team was busy at work, but we were wondering what the build and programming teams were doing at Ken-Tronics. I took a Tuesday and went down to Ken-Tronics to see what was up. When I got there, I was not surprised at what I found.

Down at the build area, everyone was doing as much as they could in the time they had. Some of the jobs consisted of taking apart old goals from previous competitions and beginning construction on this year's playing field by building ramps.

There were also a couple of people working on the light for the top of the goal.

But the build team wasn't the only team hard at work. The programming team was doing a variety of different activities as well. One of their projects was building the control board. There were also discussions about robot strategy.

Overall, you could tell that there was a lot of time and energy put into the process.

Where the Action Is by Seth Carlson

The robotics team always likes to try new things and go new places, and this year is a demonstration of that. Instead of the Chicago/St. Louis regionals that they usually attend, they have decided to go to a new regional.

As usual, the team will be attending the Midwest Regional in Chicago from March 16-18, 2006. Team 648 has quite a bit of history there, rooted in a long-standing rivalry with Team 111 (Wildstang) and Team 71 (B.E.A.S.T.). In addition, one of 648's allies, Team 107 (Metal Flow), is attending as well. The team will also be staying at the Embassy Suites hotel, as they have the past two years. The second regional will be the West Michigan Regional in Allendale, Michigan from March 30-April 1, 2006, and the team will be staying at the Springhill Suites in Grand Rapids, Michigan. This will be the first time that the team attends the West Michigan Regional.