



# THE RAVENICS REVOLUTION TEAM 1710

"If at *FIRST* you don't succeed, you have six weeks to get it right."

Volume 6, Issue 1

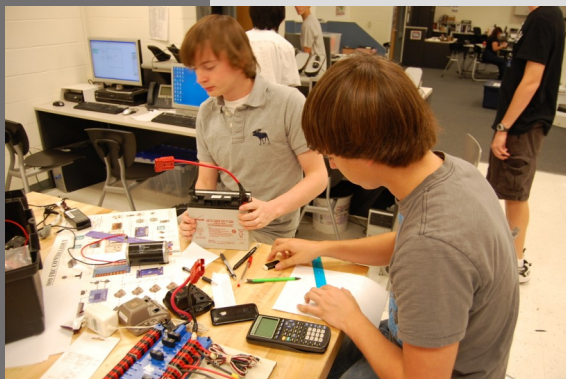
Fall 2010

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Team 1710 is excited to start its sixth year of FIRST Robotics. This past year, the Olathe school district has expanded its high schools to include freshmen, who had previously attended the junior high schools. Our Team has eagerly welcomed these new students and team members.

This year is looking to be another great year of robotics. Already, we have held a mini VEX Challenge at Clearwater Creek Elementary School. We brought a few of



*The Electrical Team is hard at work drawing schematics.*

our VEX robots and fields to the 75 second graders. Their game was simple: whoever moved the most foam balls to the other end of the field won. With three fields, 6 robots, and countless batter-

## A NEW YEAR

ies, the students went one-on-one to see who could best control the robots. The two highest-scoring students from each field then competed for the championship. They were having so much fun, even a teacher played a game! At the end of the day, we packed up, said our good-byes, and left the students with a bag of candy for their effort and dreams about their futures in robotics and engineering.

Our communication has further increased from mass text messages to the online networking site, Edmodo.com. Used by teachers in the past to alert students about homework assignments and other notes, Edmodo has already proven useful to Team 1710. With it, we have been able to contact the entire team with ease and efficiency.

From last year, our You Go Girl program continues. This program is our team's way of supporting women in engineering and encouraging them to pursue a future in some form of engineering. Our program con-

sists of the small but growing group of girls on our team who design posters, buttons, t-shirts and safety glasses while still performing their main responsibilities on the team.



*"I feel like I have been welcomed by the people here" Says Jack Moormeier (above left)*

The Olathe schools career fair is coming up, in which we have the opportunity to affect 1700 junior high students by presenting our past accomplishments as a *FIRST* Robotics team. With the expansion of our High school, Team 1710 will have more members than ever before. An astonishing forty-member team this year, will prove to be most helpful as we attempt to complete more than we have ever done in the past.

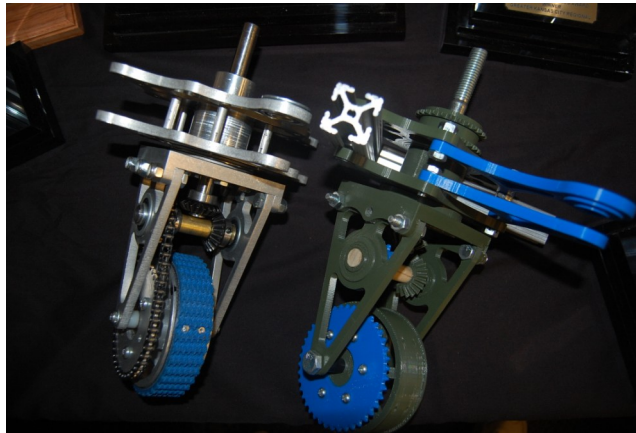
*-Nathan Ruzzin*

“With the recent addition of a metal shop to our Aerospace & Engineering wing, we have even more capabilities.”

## SWERVE DRIVE

This year our robot won't be limited to simple forward and backward motion; rather, we are going to have omni-directional capabilities, meaning we'll be able to move in any direction we want. With our student designed swerve modules, our team will have a possible model for this year's competition. Swerve allows for the wheels to rotate 360 degrees, which gives the robot the ability to travel in any direction at any given time without changing the way that the robot was facing. Although this has been an on-going project, the finish line is fast approaching, as we are in the process of modifying

and attaching the swerve modules to a practice chassis.

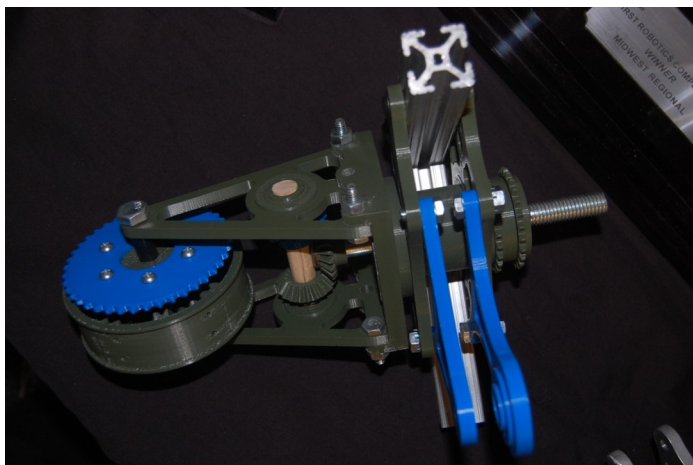


Throughout this process, our team has learned not only about mechanical tolerances, but also about the manufacturing process. With the recent addition of a metal shop to our Aerospace & Engineering wing, we have even more capabilities. This metal shop has already been taken advantage of; we have

used our programmable mill to modify our drive sprockets so that they fit correctly. We have also made use of the new lathe to turn down multiple parts on our swerve unit. In hindsight, we found many tolerance errors that have been overlooked, and took steps to correct these problems.

With a change over in team members, the importance of communication has become prevalent. Now that we fully understand the new swerve system, all mechanical members from freshmen to seniors are learning the in's and out's of our new drive system. In the upcoming season, modifications to swerve are sure to arise, generating the best performance possible. Team 1710 looks forward to the advantage swerve will provide this year and in the years to come.

-Joe Stack



## COW TOWN THROW DOWN

Presented by Team 1730, Team Driven, this year's upcoming Cow Town Throw Down at the Cerner Corporation has been quite the anticipated event for Team 1710. On Saturday November 6, we will kick off another great year of *FIRST* Robotics with the other *FIRST* Robotics teams from the Kansas City area, competing in, of course, last year's competition using last year's robots.

Team 1730 created Cow Town Throw Down just a few years ago as an opportunity to introduce new *FIRST* Robotics team members to the competition that awaits them later this season. Every Fall, Team 1730 hosts this mini-competition, which has been quite the accomplishment for a six-year-old team.

Not unlike our own team, Team 1730 was introduced five years ago. With a teacher, a handful of

students, and a common interest, the team began and has accomplished so much since their commencement.



Of their many accomplishments, Cow Town Throw Down is, undoubtedly, one of their most distinguishing features.

Now, we, Team 1710, have been invited to this competition nearly every Cow Town Throw Down that Team 1730 has hosted. Although we have not had the opportunity to act on this invitation every single year, we are sitting on the edge of our

seats, the anticipation boiling inside our skin. Though we are restless, Team 1710 has every intention to wait the good wait so that we can show off our progress during the off-time to the other teams attending the mini-competition.

This year, the Cow Town Throw Down's schedule is the following:

7:00-8:00am—Team Registration and Final Inspections

8:00am—Coach's Meeting and Driver's meeting

8:30am—Opening Ceremony

8:45am—Qualifying Rounds Begin

1:00pm—Elimination Rounds Begin and Continue into Final Rounds

5:00;m—Estimated End of Competition

*-Tyler Howard*

## PANCAKE BREAKFAST

As one of our more successful fundraisers in the past years, the Ravonics Revolution plans to hold a pancake breakfast at the Applebee's next to the Great Plains Mall. This is a great fundraiser and team-builder. By getting the team to Applebee's early in the morning and having fun while serving those that attend, we spread the word of



FIRST Robotics and



have a great time simultaneously. As servers, the team members bring out plate after plate of pancakes and are able to talk about FIRST to anyone who wants to hear. This was a very successful fundraiser for our team last year and we would like to continue using this as one of our fundraisers for many years to come, so come out, support our team, have a great time and be inspired to be the FIRST to do something awesome.

*-Justin Zeiler*



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# NOVEMBER 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 6:30pm Team Meeting	2	3	4 3:15pm Team Meeting 7:00pm A/E Open House	5	6 8:30 am Cow Town Throw Down
7	8 6:30pm Team Meeting	9	10	11 3:15pm Team Meeting 6:00pm—9:00pm ON Science Night	12	13
14	15 6:30pm Team Meeting	16	17	18 3:15pm Team Meeting	19	20 8:10am Pancake Breakfast
21	22 6:30pm Team Meeting	23	24 Thanksgiving Break	25	26	27
28	29 6:30pm Team Meeting	30	DEC 1	DEC 2 3:15pm Team Meeting	DEC 3	DEC 4

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