TEAM 1189 WEEKLY UPDATE

GEARHEADS GAZETTE

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SPECIAL POINTS OF INTEREST:

- Prototype building begun
- New game centered around teamwork
- Team members' opinions on new game

GEARHEADS READY TO SOAR

BY DANIEL BLOHM

Only two days into the build season and the team has already gone full speed on production. Gearheads have started prototyping and brainstorming. So far they have a working prototype of a launcher, but are building more prototypes to have a variety of launchers when we finally decide which scoring method we would like to use. However that's not the only decision the team has to make. We have to decide what chassis to build and what drive system to use. That being said, the Gearheads are shifting into high gear. The build team, which is charge of prototyping, has put out a working prototype in one night. The design team is going over the C.A.D. systems again to make sure everyone knows how to use them. The controls team is deciding which drive system they want to use. The newsletter team is compiled of 5 people who are each doing their own articles. The social network team is sending out updates on the Gearheads' progress through out each build night on all of the Gearheads social media accounts. The website is up to date with all its information and the calendar is up to date as well. All in all, the team has got a great start on the season. The future is bright and filled with the soaring flag of black and yellow. Bring on the build season!

Above: The Gearheads have a 'Hands In' at the end of a meeting.

Below: Mr. Santrock and Mr. Beckett discuss shooter prototypes with students.

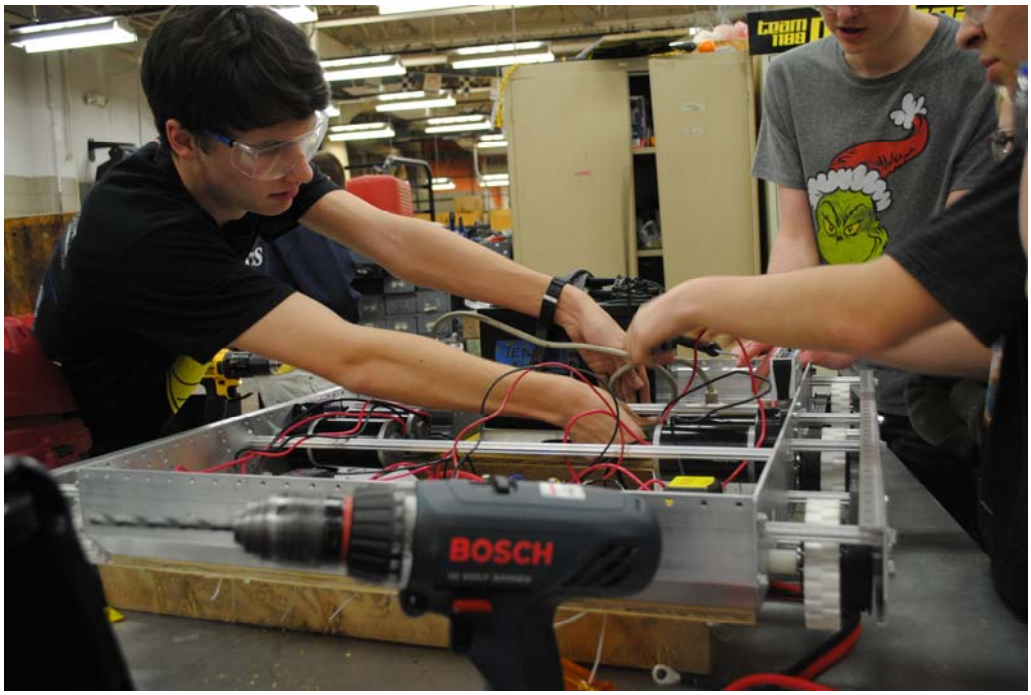
3 INGREDIENTS NEEDED: TEAMWORK, TEAMWORK, AND TEAMWORK BY EASTON WASHBURN

"Welcome to the 2014 FIRST Robotics Competition, and this year's game: Aerial Assist!" Those were the words that started the pandemonium that will be this build season, and there's an aire of anxious excitement floating throughout the shop. This year's game, played with 2-foot diameter exercise balls, is quite contrary from the games of the last five years. Most recently, the games have been based around smaller sport-based game pieces, such as frisbees or basketballs. With the smaller pieces, it allowed the teams to score points on an individual basis, but this game has changed the game dynamic entirely. Aerial Assist only has one game piece on the field per team, and the points revolve around teamwork. Two years ago, the endgame involved teamwork as well--two to three teams had to balance their robots on a teeter-totter-type bridge in the middle of the field--but the magnitude of that comes nowhere near the necessity of working together in this year's game. Every pass between robots this year adds 10 bonus points, and a score involving all three robots down the full length of the field adds 30 bonus points to the base point value of the score. New this year is a 5 foot high truss spanning the middle of the field, and this opens up other opportunities to gain bonus points. If a robot can pass the ball to its teammate over the truss, the alliance gains 10 bonus points. If another team's robot can catch said toss, the alliance gains another 10 points. All things considered, the optimal score to be gained is 60 points for a single scoring cycle (Scoring cycles are explained further in the rulebook, which is accessible through the Gearheads webpage). None of these bonus points count, though, if only one team moves full-field and scores all on its own. The teamwork counts for more than just pit cred: it can make the difference between winning and losing a match, and that's what sets this game apart from past years.

"This game is interesting in that there's a safety net within the assist points for all teams. Even teams with only a chassis can score upward of 31 points with the help of their alliance." -Mike Bakowski

Above: The affectionately-named Shop Rats talk about safety around the machinery.

Below: Build students work on the kit chassis.



THE "AERIAL ASSIST" CHALLENGE BY EMILY MURRAY

Saturday, January 4 was the official kick-off for this year's build season and the Gearheads were in attendance to learn all about this years challenge. This year's game, titled "Aerial Assist", should be a fun challenge for the team. For the game, the team must build a robot that can somehow transport a ball, 2 feet in diameter, from one end of the court to the other. The catch, they must work with two other teams to move the ball to the goal and score while gaining extra points for assists. There are many challenges in this game, like how to catch the balls and throw them and also how to defend the goal from the other teams. Creating a robot that has the ability to do all this while also staying within the guidelines set by FIRST will definitely require a lot of problem solving and working together from the team. The team is given a kit of parts to work with and a set of guidelines to follow and then is set loose to design the robot and hope that it will do what it is supposed to. This year, the Gearheads will have to work tirelessly to get this robot ready within the next six weeks .

"Random teammates are going to make or break us. This year will be complicated."
-Evan Wilson

Left and Right: The Build group tests their prototype pneumatic shooter.

Above Right: The Controls group meets to discuss the coding and software they will be using this year.

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