

# Week 3 Update Team Paragon







## Up Up and Away!

The team has weighed the practicality of all design ideas and have really made progress in finalizing its designs of the practice robot. Competition is fast approaching, and Paragon has already begun spinning some of its rotors. The team just has to fit together a few more gears.

#### **Build**:



This week in build, the team weighed their options for the spacing of different elements on the robot. We are weighing pros and cons of the shooter mechanism we built, regarding its weight and scoring potential considering the time it takes to line up with the basket. Instead, we decided to create a basket of fabric on the bottom. The design includes a motor to pull up on the fabric and

spill all the fuel out of a side hole in the basket into the goal. We also decided to place the gear collector mechanism on the side of the robot, with the fuel picking up mechanism on the front. The build team also began creating

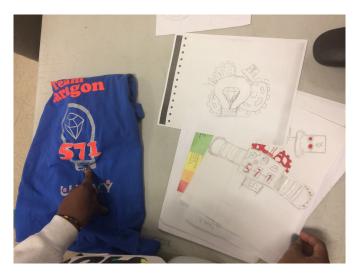
the chassis for the practice and competition bots. Great progress was made adapting the prototype ball collector into a full size version on the practice robot.





#### Imagery:

In Imagery, the team finished up the designs for the awards. There are three different award designs this year. They have all completed first stages of building and are awaiting painting. The team t-shirt design is also finalized and is currently being digitized on the computer! Creativity is underway in developing this year's "robot" book.



## **Programming:**



Programming has been developing code based on a 'Component Based Software Design' where each system of the robot can operate independently of the others. The entire robot is broken down into separate subsystems (ball grabber, shooter) which are then broken down

into more subsystems (motor, solenoid, etc). This allows us to turn one section of the robot off without impacting any other sections.

In addition to this manner of design, programming also believes they are now prepared for any interaction with the real robot after finishing code for its hopper mechanism. This means they can now begin their work on the autonomous





system, which takes place at the beginning of every Steamworks game. Autonomous is just as it sounds. The robot runs automatically based entirely on code with no human drivers.

## Web:

Web continues to update the team's web site with the latest team members. Since the group must manage an abundant amount of information about our mentors and students, the process is time consuming. The Web team would also like to inform everyone that Addison and Sam are officially not listed as our captains anymore!



#### Upcoming Events:

Suffield Shakedown - February 18th Bag and Tag Day - February 21st Waterbury Competition - March 3rd - March 5th Hartford Competition - March 31st - April 2nd

