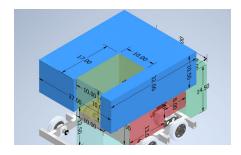
Team 3082: Weeks Three and Four Update

Design:

Week three placed a big emphasis on spacing out areas for each of the robot's subsystems, so we made a CAD with the set spacing. Over these two weeks, we also approved designs for, sketched, and finished CADs for our shooter, power cell hopper, and intake.



Prototyping:

We mocked up a quick intake prototype to test spacing and its ability to pick up power cells over the bumpers. It worked very well, and we used this setup to refine spacing in the intake CAD. We also completed multiple iterations of our climber prototype, but our progress in creating the final climber sketch has been delayed by mathematical calculations and debates over placements. We have, however, settled on a general climber design to move forward with.



Mechanical:

As predicted, we completed all field elements we wanted to have built by the end of week three. On the robot side, our pneumatic wheels came, so we were able to add the chain and wheels to the chassis.

Electronics:

We finished the first iteration of our official electronics board and have been working on incorporating pneumatics into the system, as this has been a more recent decision. We drew out our electronics board layout and can begin assembling it early in week five on the bellypan.

Programming:

Even without a running drivetrain, we completed a basis for the autonomous code. We also used the kit chassis assembled previously to continue work on vision. The robot can now use the Limelight to line up with and follow a target with reflective tape. We also got our new motors during week four and began testing them to ensure they will hold up for us during competitions.



Business:

A lot of progress was made on our Chairman's essays for submission near the end of week five (February 6). As the first time our team submits for the Chairman's Award, it is something our new head coach has been actively encouraging us to complete the submission for.

Competition Roles:

We successfully picked our 5 drive team members during week three based on the three-step application process. During week four, we put out an application form for other competition roles, such as pit crew and team mascot. Students for these roles will be chosen and announced by the end of week five.

Organization:

We had a lot of changes to our team prior to the start of the season, including a coaching change, so it has been a journey to figure out a new system to stay organized and communicative. We started utilizing Google Spreadsheets to organize tasks among each subsystem for the robot so that students know where to go next and mentors are on the same page. This system has been working well so far and has encouraged much more progress among team members so far. We will continue to adjust and improve system as the progresses, but we are very proud at the moment of this new organizational development.

Proudest Accomplishments:

- **★** Working robot vision
- ★ Designs coming together to create a full, cohesive robot design
- ★ An improved organizational system to help develop efficiency of team actions and better communication throughout the remainder of the season.