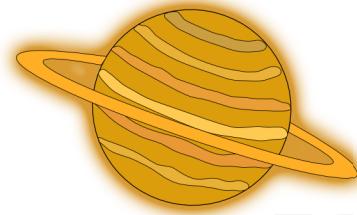


THE VALOR OBSERVER



Build-Season Week: 1/21-26/19

We are halfway through our 2019 build season and the pressure is on. This week, the mentors held our final design review meeting. We are beginning the process of manufacturing the lift bars, intake mechanism, hatch mechanism, and forklift. Both chassis are completely done with wiring allowing software to test. Next Tuesday, the remainder of our parts are going to be sent out to get powder coated, which meant this week we had to finish milling and cutting all parts for both robots.



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STUDENT SPOTLIGHT

Ana McIntyre

Business/ Chairman's team



My goals for this week was to finalize chairman's video script, update the website, update social media, and practice "tell me about your team". I accomplished all my goals. I posted new content on our social media helping expand our online audience by gaining more followers. The business sub-team and I spent a lot of time working on the chairman's script to effectively convey our message. I worked with Harshita to add content to the website that will soon go live. We then worked on "tell me about your team". My goal for next week is to publish the website, begin practice our Chairman's presentation speech, finish the final edits on the 10k character essay, and continue practice with "tell me about your team".

Gabe Diaz

Object Collection Device Lead / Chairman's Team

This week my goal was to finish the intake CAD and begin to manufacture the goose neck and the lift. Throughout the week, we finalized the geometry on the intake. The intake CAD was completed and we began to manufacture the gooseneck on the router. We had an issue with the prototype of the intake, not having enough compression on the cargo when collecting. To overcome this, we added a bar at the back of the intake in order to keep the ball compressed with our roller. Next week I plan to finish manufacturing the intake and begin to assemble the gooseneck.



MEET THE MENTOR

Jesse Vera

Fabrication Mentor



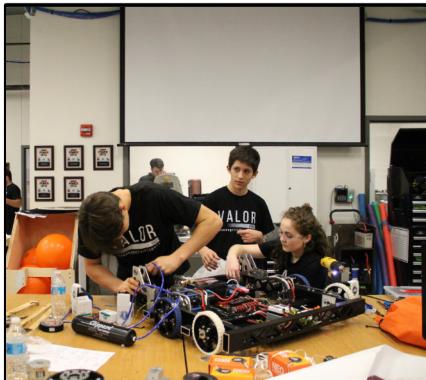
We began the week by testing our intake geometry that we cut on the router last week. We wanted to make this test as realistic as possible by attaching it to our chassis with the bumpers. From this test we found that we lacked compression whenever the cargo hit the second set of rollers. In order to solve this we moved the position of the roller and added a bar on the bottom of the intake in order to create more compression with cargo and our roller. With these new improvements we updated the intake CAD and began to finalize the CAD in order to prepare for manufacturing and creating a parts order. Next week we are going to begin to manufacture and assemble the intake.



SUB-TEAM UPDATES

Chassis

This week we worked on fixing our wheel spacing and cutting down our axles to the correct length. Both chassis have been assembled and powder coated so there wasn't much for us to do. Right now, we have transitioned to working on manufacturing the lift bars and wiring the robot.



Above Chassis

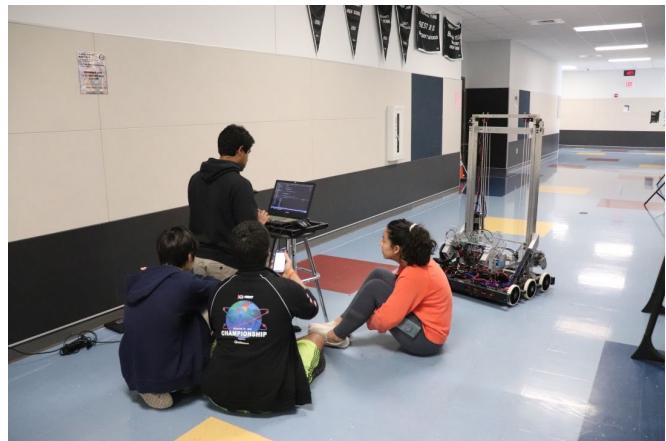
This week the above chassis subteam broke up into separate groups in order to accomplish this week's goals. Due to the CAD freeze on Saturday night, we had one of our subteams working on finalizing lift and hatch CAD. Our other group began manufacturing lift parts that had finished CAD. They managed to finish the lift support bars and began working on our lift bars. Next week, we plan on having more of the above chassis subteam working on manufacturing the lift and hatch mechanism parts.

Controls

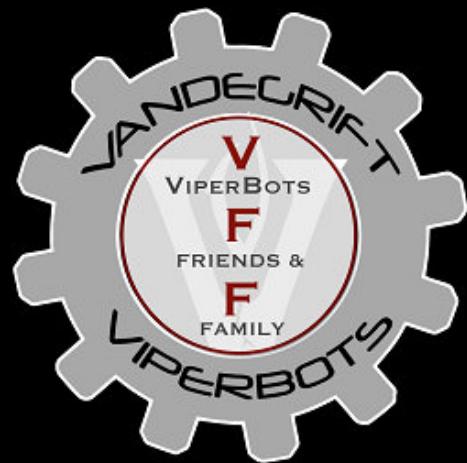
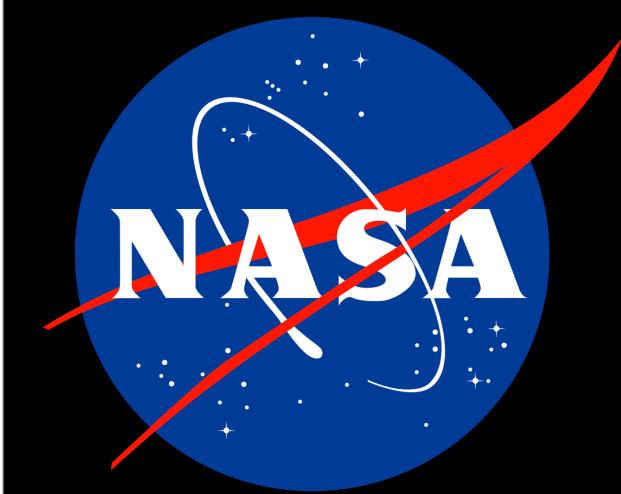
With the completion of our main Teleop code last week, the software team focused on solidifying our button layout for the drivers. Meanwhile, the electrical team finally got our second chassis moving. We spent the last two days of the week setting up new motor controllers on both chassis. This will allow other subteams to begin testing prototypes as well as complete all wiring on the base before mechanisms are added above the chassis. Next week, the plan is to begin working on vision to assist our drivers during the tele-operated period of the match. Working with cameras to detect the retro-reflective tape, we hope to write code to automatically align our robot for scoring without driver input. Plans for a sensor in the carriage itself will allow us to automate certain safety features, and we will begin to look at cutting down on the amount of physical buttons controlled by our second driver by incorporating several commands into macros triggered by a single press. Electrical team will continue to finish wiring the remaining components onto the chassis so that testing will be readily available. After the chassis is wired, the team will merge into the subteams to assist them manufacturing the remaining robot.



PICTURES OF THE WEEK



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ARM

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- ALL-AMERICAN WHEEL PROS**: Features large stylized letters "A" and "W" in red and blue, with a blue banner across them reading "ALL-AMERICAN WHEEL PROS". Below the letters is a silver wheel, and at the bottom, the text "HAVE A WHEEL-Y GOOD DAY!" with a trademark symbol.
- CIVITAS LEARNING**: The word "CIVITAS" is in blue, "LEARNING" is in dark blue, and there is a registered trademark symbol (®) to the right. To the left is a blue circular graphic composed of dots.
- FIRST IN TEXAS**: The word "FIRST" is in large bold black letters, with "IN TEXAS" in smaller black letters below it. To the left is a blue and red geometric logo consisting of overlapping triangles.

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