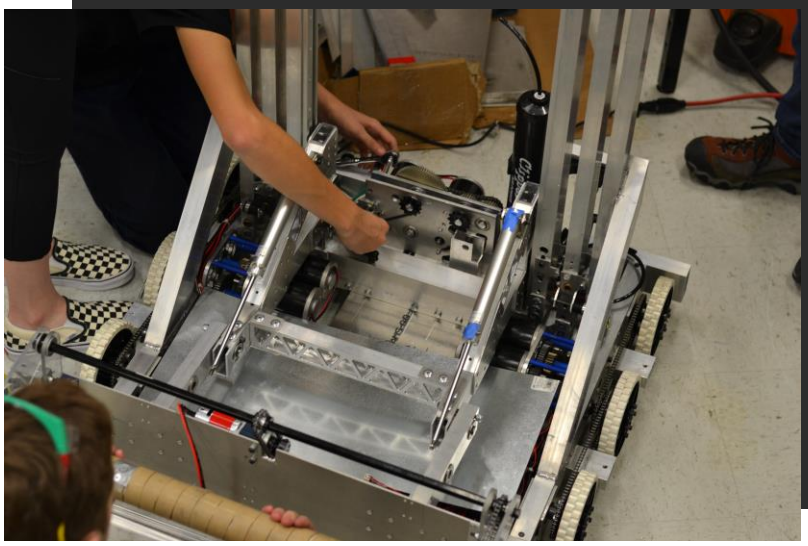
THE VALOR OBSERVER

Build-Season Week 4
Monday, February 5th, 2018

Above Chassis Sub-Team's Lift TAKES OFF

Valor is now more than half way through its build season and thankfully our robot coming along great. This week's focus has been on building our lift. The mechanism works by sliding up in four stages for a total reaching ability of an astonishing 8 feet and 4 inches. We hope that this combined with our intake system gives us the competitive advantage we need to become one the top robots at our very first tournament.



Keep up With Valor on our Social Media!

http://viperbotsvalor6800.com/

https://twitter.com/FRC6800/

https://www.facebook.com/Valor6800/

https://www.youtube.com/viperbotsvalor/

Interested in being a FIRST Volunteer?

For more information about how to get involved, Click Here!

FRC
FIRST® Robotics Competition

Student Spotlight

Natalie Root

Above Chassis Sub-Team

I enjoy being on Valor because it's allowed me to work hands-on with the robot and lay a foundation for future generations of ViperBots. My sub-team, Above Chassis, is phenomenal because the members on my team haven't and won't let any obstacle stop them. This year, I am looking forward to Competition season because this means we get to see all of our hard work in action. I'm so grateful for this final year in FIRST and cannot wait to utilize the skills I've learned through the program for the rest of my life.

Philip Sarkis

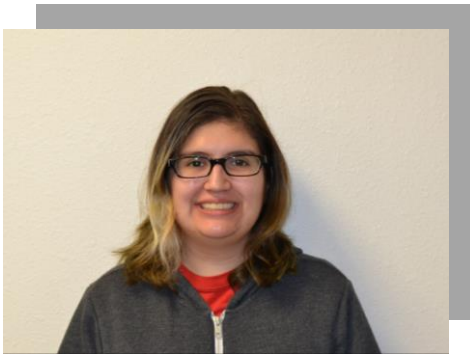
Controls Sub-Team

I like the camaraderie of the team and how everyone is held accountable. I really enjoy doing wiring because its a new thing for me and I have learned a lot about it, and I've been able to make valuable contributions to the team because of it. I'm looking forward to the competitions, the emergency pit fixes, the clutch matches, and the late nights with my great team. I live hedonistically and robotics has been a lot of fun for me. I also am going to college next year to be an electrical engineering major, a decision I came to because of my time in FRC.

Meet the Mentor

Rachel Eversmann

Above Chassis Mentor



This is my 11th year in FIRST. I was involved with FRC when I was in high school and was on team 1255 Blarglefish. I help the Above Chassis team, working on the lift. I went to UT for Electrical and Computer Engineering. I am currently a software engineer. I love seeing the ideas form in the students heads and them get to test it out and learn from their mistakes. Helping the students grow as engineers and people is why I do this.

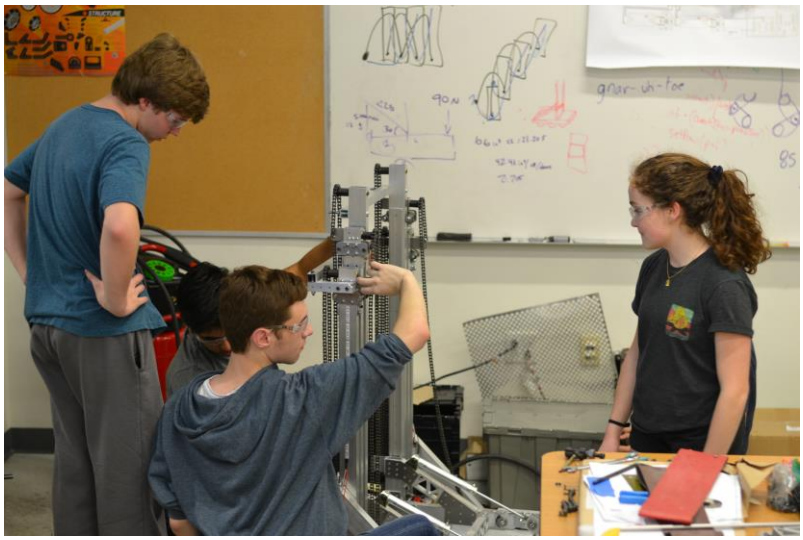
Sub-Team Updates

Object Collection Device (OCD)

This week our sub team continued to work on the geometry of our intake. We found that our design had issues with the power cube catching on the carpet, so to prevent this we moved a bar in front of our roller and moved our roller back. This allows for the block to be corrected so it does not flip. We also found that our current 4:1 gearboxes didn't produce enough torque to we are going to switch them out for 16: to 1. We then mounted the intake onto the practice bot and are ready to test and manicure the one for competition bot.

Above Chassis

This week we made major progress on the lift. We got our chain measured out and started cutting the steel axles for the chain's sprockets. We had some minor issues with gearbox mounting but managed to figure them out by getting some longer screws. We also finished machining everything we need and just need to assemble our first lift.



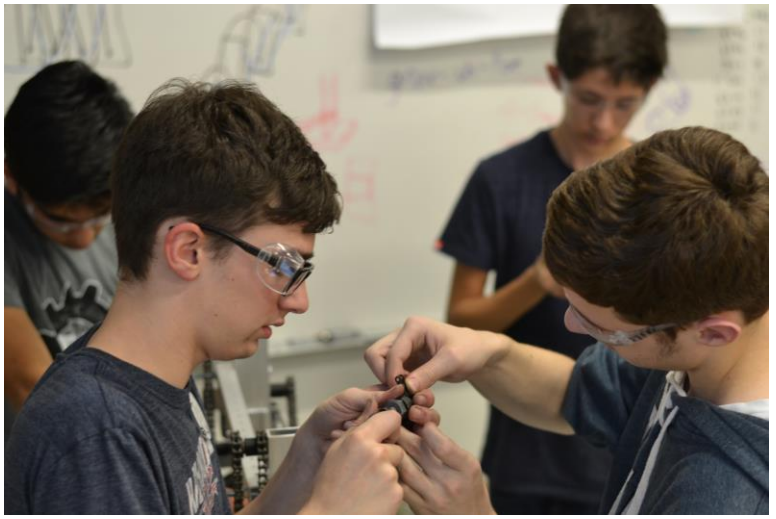
Chassis

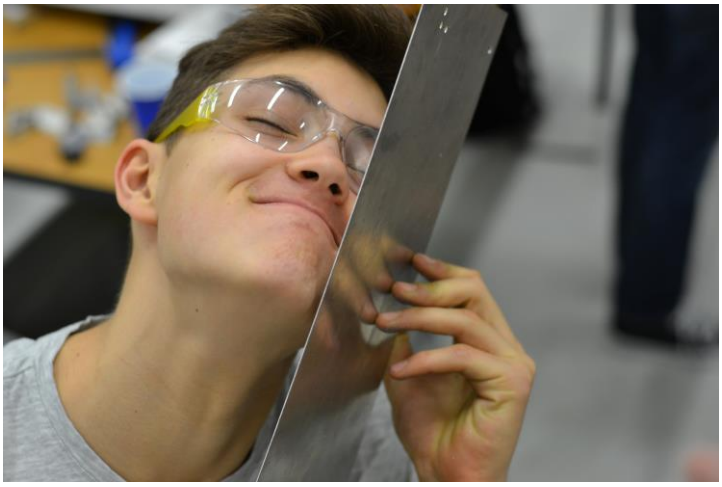
This week, the chassis team finished up the transmissions and drivetrain for the competition robot. We then, as a sub-team, split up and started to help other sub-teams. Adelaide and Sachin started working on the carriage for the OCD and Lift team. The carriage for the practice robot is finished and we manufactured the parts for the competition robot's carriage. James started to help the lift (Above Chassis) team by manufacturing and assembling parts for them.

Controls

The control team focused on testing the different sensors on the competition and practice robots as well as finalizing the wiring on each robot. With adding more robustness to the electrical connections on the robot, we will hopefully disconnect less (if at all) during a match. Since completing this, we have again divided up into the different hardware sub-teams to help manufacture the last parts that need to be mounted onto the robots!

Pictures of the week:





OPEN HOUSE

Valor will be hosting their first annual, Open House.

Come see the robot and all that Valor has been working toward this season.

Save the Date: February 26th, 2018

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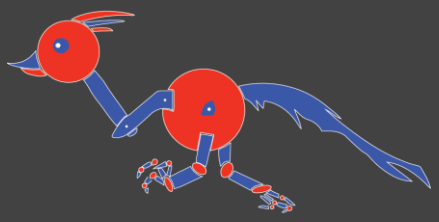

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