

# THE TALON TIMES

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## January 2016

The Saturday meeting in Week 2 was cancelled with midterms looming on the horizon. As a result, the strategy subgroup met only on Wednesday, 1/20. Since the prototype robot was still under development, we chose to indefinitely postpone drive team training until its completion. Furthermore, we interviewed all of the drive team members (those on both the primary and the secondary teams) and each felt confident with their skills, which they had already tested in Week 1. That's why we currently feel that further practice with older robots would not be in the best interest for the drive team at this juncture. Daniel continued to work on the scouting guide and we experimented with Google Forms as a potential platform for online scouting and this currently shows promise. Finally, we were informed of the opportunity to visit a practice field in Mechanicsville. The strategy team is interested in visiting this field so that we can gain a better visual conception of its dimensions and game elements. We will schedule a visit soon with VirginiaFIRST and see when would be the optimal time to test our robot.

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## Programming

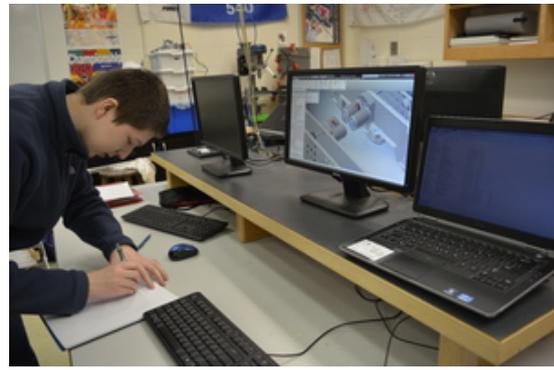
Over the last week, the teleoperation code was fully written and tested to work for a six wheel drive design without mecanum. In addition, the code for the automated and manual gearbox shifting was written, and both the ball magnet and shooter mechanisms were programmed. For the autonomous code, the programming group has so far finished setting up the camera tracking modules, and are in the process of writing the code and tweaking the parameters for the robot's sensors and other modules.

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## Electrical

This week with team 540 we in electrical began constructing a robo-battery cart. This task began with sketching out the drawing. We had to develop a way holding the robot and batteries, without wasting space and maintaining stability. The idea we had involved 8 compartments with a shared lid that acts as a shelf for the robot. Soon after we gathered wood and measured up the pieces to our desired length. Next week we put it together.



## CAD

During week two, I learned what the bonus mechanism is going to be. The bonus mechanism is used at the end of each match to score extra points. This year's game consist of a tower that the robot can scale at the end of the match o score extra points. Mr. H took the time to draw a sketch of the bonus mechanism for CAD to make. Our robot will use two telescoping arms with a bar attached in-between to extend upward. At the top of the arms, two hooks will be placed to grab the bar at the end of the match. I worked on this CAD mostly on Wednesday.

## Financial

In the Financial Subgroup, the amount of chaos we are undertaking is quite interesting. Although it is a lot of work, and we have certain deadlines to meet, we have been working hard to deliver the proper amount of money for the team so that we can be the best we can be. This week, we were working (and getting annoyed) on the inventory for the various subgroups, as well as attempting to gather some sponsors. We also successfully planned 4 spirit nights at various restaurants in the month of February, which should get us a bit closer to the large check we need to get. Alongside that, we have helped out Outreach by training for the Girl Scouts event they are conducting. Individually, I have been doing all of these things, with every



member also helping out and our lead doing a great job of delegating the workload on to us. Now, we are just trying and trying to fill the monetary quota that is required for us to build a great robot and be the best Talon 540 team yet!

## Rookie's Response

This past week in Robotics has been life changing. When my lead first introduced me to scratch, I did not know how to use it but with the guidance of my lead, I was able to learn and was able to successfully pass down my knowledge to other students in talon 540. I, Pranav Neyveli, was able to teach other members of talon 540 how to program on Scratch, so they are able to teach other kids how to program bombinibots using Scratch. On Thursday, The trained students from talon 540 were able to teach children about robotics at Maude Trivet Elementary School. It was elating to see all the children really excited about robotics and STEM because we were making a good impact on the community. "As a rookie I came in thinking that the robotics team's purpose is to build robots, but this past week my lead introduced me to all outreach events the robotics team does and opened my eyes to the true mission of Talon 540."

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### TALON 540

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