



RAGE Robotics

BUILD SEASON - WEEK 3 UPDATE (STOP BUILD DAY 2/23/16 AT 11:30 PM)

The subgroups were busy this week working on all components of the design.

CAD (Base and Manipulator) – The CAD group has been using a web based solid modeling program called Onshape, essentially “Google CAD” because the group can all be working on the same model at the same time and see what everybody else is doing. The group assigned certain mechanisms to small groups of 2-3 people and were then able to put all of the models together into one assembly. The robot has a 30-inch by 30-inch with six 8-inch pneumatic wheels and will be driven similar to previous years. Parts for the base will be fabricated by CNC Software (in Tolland) this week. Components for the manipulator arm, which will be used to lift different defenses, have been ordered and should arrive by Wednesday.

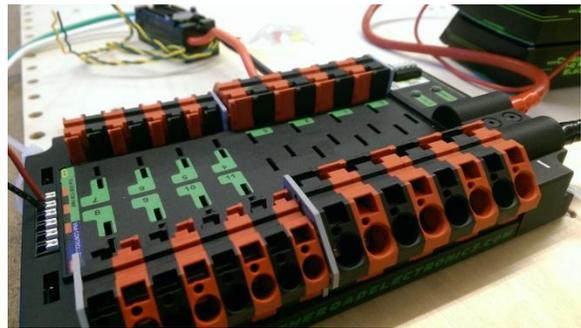


Mechanical Build – In anticipation of getting robot parts this week that can be assembled, the mechanical build group met to prepare the room – cleaning, organizing and making room.



Safety – This week, the safety committee researched a variety of safety glasses to purchase for the team. We began creating an online survey to determine the team's preferences in regards to safety glasses. In addition, we constructed a CAD model of the RAGE room and the safety features that are included in it! This will be displayed in various parts of the room so team members understand what and where safety measures are included.

Electronics – This week the electrical subgroup focused on finding all the parts needed for this year's robot as well as learning how each component works. The students practiced stripping wires and connecting them to the motor control systems as well as the different parts of the power distribution panel. The subgroup also reviewed the rules for all the electrical parts of the robot. Each student was either assigned a part of the robot that they will be in charge of wiring up when the robot is ready or the task of creating a rules and safety checklist that will be used during build.





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Programming – The programmers stayed busy updating the code for driving the motors and controlling the pneumatics.

Spirit/Social Media – The Social Media group was busy this week getting photos of each team member. The photos will be posted soon on the RAGE website. So far they have collected photos of 39 of the team members....almost done!

Scouting – This past week the Scouting subgroup discussed the game objectives and prioritized which information was critical to gather during the district events. Each member suggested objectives such as crossing the defenses, scoring in the tower, autonomous mode, etc. After listing each item of interest from highest priority to lowest, we then discussed ways of gathering the information and relaying it to the drive team in an effective manner. The subgroup members each drafted their own version of a scouting sheet, which will be refined during the remainder of the build season.



For additional updates please check out our website (www.ragerobotics.com) or like us on Facebook (RAGE Robotics).