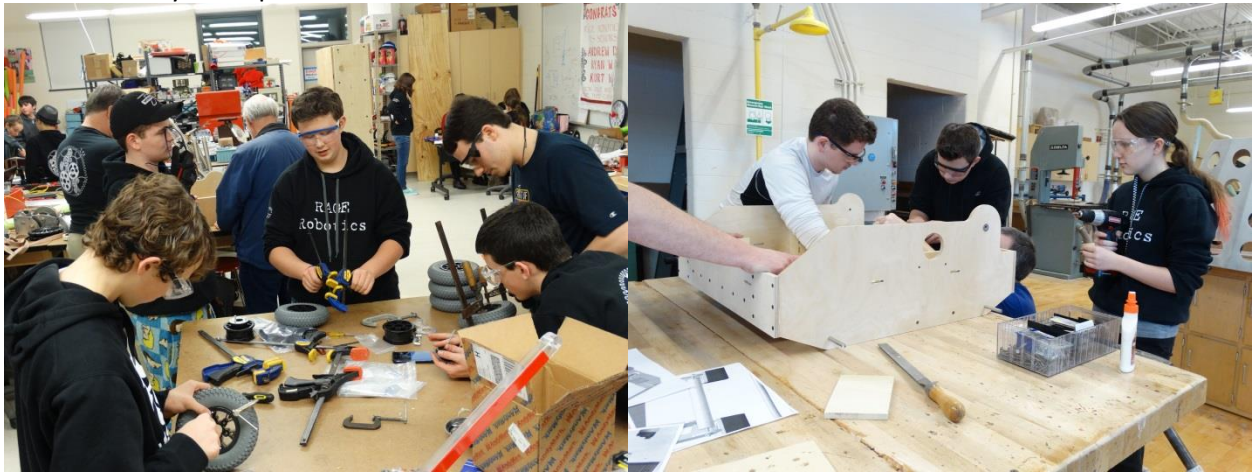


RAGE Robotics

BUILD SEASON - WEEK 4 UPDATE (STOP BUILD DAY 2/23/16 AT 11:30 PM)

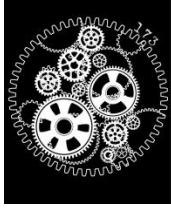
CAD (Base and Manipulator) – The CAD group finalized a design for the base and submitted the drawings they created for fabrication. The base pieces arrived this week so the Mechanical Build group could take over and assemble the base. With the base design completed, the group began brainstorming ideas for climbing the tower in the last 20 seconds of the competition.

Mechanical Build – The build team began the week by cleaning up the room some more in preparation for the “real” work ahead. The pneumatic wheels and wooden base parts arrived mid-week and the build team quickly got to work. By Saturday mid-day, the wheels were assembled and the base was built and on it’s way to be painted.



Safety – This week, the RAGE Safety Team updated their Safety Glass survey and finished up the CAD model of the RAGE room mapping out the safety features. In addition, the group presented what to do if a team member receives a minor electrical shock and briefly discussed safety during the competitions, including who can be on the playing field and when it is permissible. The playing fields are lit up with different color lights during the competitions to signal when it is safe for team members to enter the playing field (after the match is complete) to retrieve or reset the robots.

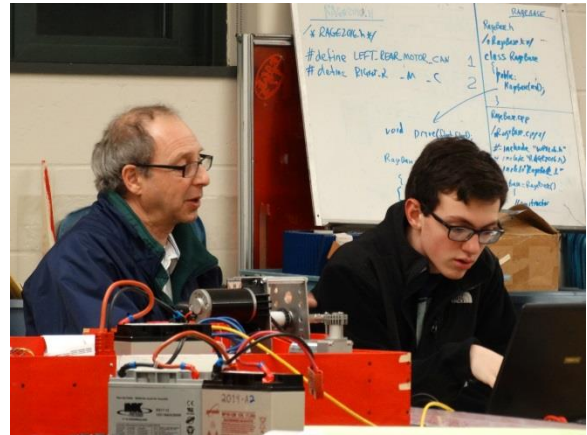
Electronics – The electronics subgroup took a model of the robot base and planned where all components will be located. In addition, they used a DVM (digital volt meter) to check that all of the red and black wires were connected to the right locations. They then connected the electrical parts to the robo-RIO which controls the electronics. Working with the programming group they were able to assign an address to all of the motor controllers so that when they are connected to the motors they know “who” they are “talking” to.



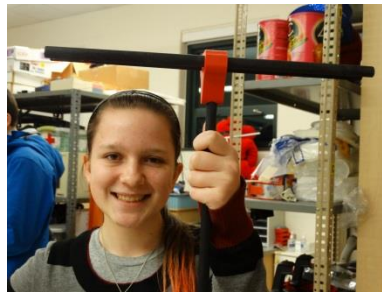
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Programming – Within the programming group, the members were assigned specific parts of the programming to work on, including controlling the cameras so the drivers can see while on the other side of the playing field and the ball handler.

Social Media – The Social Media group finished getting the last of the team member pictures and posted them on the team website. In addition, the group worked on creating a new header for the website that should be unveiled within the next week. We also had some fun gathering pictures of medals and plaques from previous year's successes for some inspiration.



Spirit – The Spirit group was busy this week, nearly completing the team's standard, a flag that will be displayed at the drive station during competitions. To support the standard during the competitions, they found a design and were able to use the 3D printer the team obtained last year to print out the main bracket. They also came up with a new idea to make hats for team members, and started a sign up list so all members that want one will be able to have one before the competitions start. As for future projects, they are hoping to design and construct a new flag and are looking for input on new team buttons.



Spirit Group showing off their work – Team Standard and 3D printed bracket. Mentor "Mr. Sam the Tall" models the new design for the team hat.

Scouting – The Scouting subgroup is finalizing what scouting information will be collected with the digital and paper scouting sheets. They are also working on the logistics of data transfers using databases and barcode readers. The digital sheet is using HTML and Javascript and will have a multitude of form inputs. Once completed, the data will be processed and placed in a CSV (comma separated value) row which will be used to generate a QR code to be read into an MS Access database. The Database will then be spooled into the printer and plotted on paper to be presented to the drive team so they have the potential to gain the upper hand in the competition!

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