

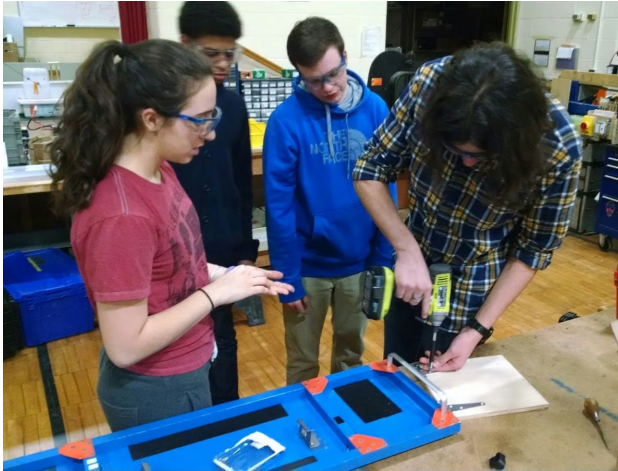


Waterbury Update



Leading up to Competition:

Leading up to competition the team still had lots to do despite being unable to directly continue work on the robot. Imagery finished up the awards we planned to hand out at the competition, as well as make sure we had enough hats from everyone attending the competition. We also finished up work on the story book we had written during build season by taking pictures and formatting it correctly to be printed. The drive team met to

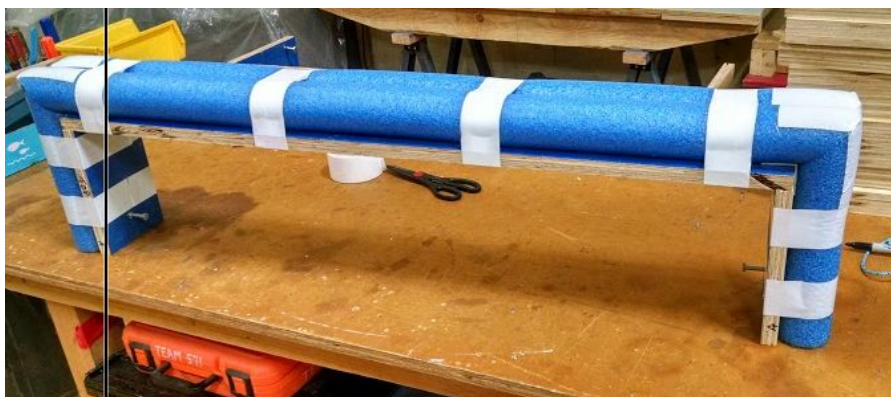
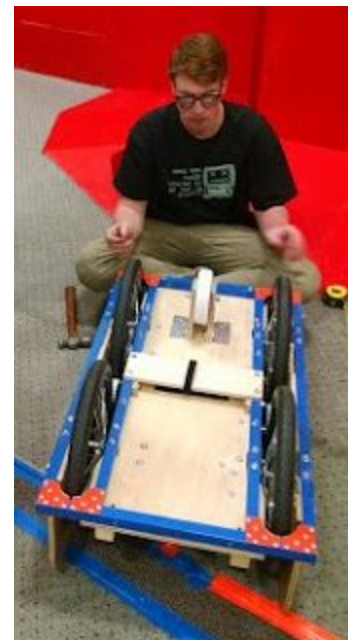


practice operating the robot in preparation for the weekend's competition, as well as make



modifications to our drive station. Programming was still able to work on the code we would use for the robot therefore, they continued work right up until competition. The rest of the team worked to make sure all of our needs during competition would be met.

There were buttons to make, bumpers to finish, pit books to finalize, picture frames to update, mascots to put finishing touches on and countless other tasks to be completed in a short amount of time,, including some meditating over the robot. As a team we packed everything we would need in



the pits as Josh supervised the madness. We all got a list of items which correlated with a tote number and once we were finished Josh checked it off and they were put in the hallway ready to be loaded on Friday. While we doing all of these other things, we worked frantically to build and varnish 50 bumper size gauges which we planned to hand out to each team and the judges at the Waterbury competition.



Friday Unloading:

Immediately following school on Friday the 4th, the drive team and pit crew met at the build site to prepare for the Waterbury District competition. We loaded our nifty new trailer with stacks of totes (Recycle Rush anyone?), toolbox, this year's robot, Parakonan, and many other things we might possibly need. We then split into two group: one going ahead in a car, and the rest in the truck towing the trailer. The ride was entertaining, particularly related to avoiding the traffic and NOT getting lost in the Waterbury area. After eventually arriving at Wilby high school in Waterbury, where the event was being held, we unloaded



our trailer and set up our pit. While the pits are always cramped, we got a good location, conveniently located next to the administration

table and not far from the entrance to the play field. We managed to pass inspection without a hitch, being one of the more painless processes in recent years. Parakanon weighed a mere 68 lbs (31 kg), and its bumpers effortlessly fit within the dimensions. The inspectors, as well as all the other teams, appreciated the team



crafted bumper checkers we donated. Our safety captain also handed out a handy list of safety tips that could be seen scattered amongst the pits throughout the weekend. The pit crew put our time there to good use, swapping out the two powered 'Josh drive' wheels with the new rubberized tires. These had a greater friction coefficient, granting the robot greater maneuverability and our drive team increased control over its movements, along with the more obvious benefit of being blue. James spent the evening updating the radio

software to allow the robot to connect to the field.

Soon the pits were closed for the day, and exhausted we headed home, excited for/dreading the early morning that was fast approaching.





Saturday Competition:

The team met at our build site early on Saturday morning blurry eyed and bushy tailed, but no less excited for the day's competition. On the bus ride to Waterbury we strategized our new and improved scouting method, organized by Zach and powered by James. (Specifically the javascript web app that he developed aggregated our scouter's data and produced useful graphs accessible to all on the web). Furthermore, our spirit captains led the rest of the team through some practice cheers. Once arriving in Waterbury the pit crew quickly resumed their work on upgrading the robot's drive train, while the rest of the team set up in the stands. Our position had a great vantage point of the play field, and at an



excellent angle for optimal viewing of the projected scores and (perhaps more importantly) FRC bad lip readings, and Billy Joel parodies. The event started with a couple meetings for drive team and safety captains, which were fairly straight forward. Following this, a series of practice matches took place, allowing teams to ensure that their robots would connected to the FMS

(Field Management System) when it really counted. We had some issues with the robot radio's firmware, but after James configured it eight times and Justin touched it, everything magically worked. The competition began in earnest not much later that morning, and right off the bat Team Paragon ranked first place! While this dropped soon



afterwards as other teams got a chance to operate their own bots, this was a great moral boost. As Parakonan competed throughout the day, the pit crew worked furiously to maintain the bot, as repeated defense crossings/slick driving maneuvers/slamming full speed into the drawbridge took a toll on its structural integrity. The necessary repairs were made, including but not limited to taping over a crack in the wooden wheel guards, resecuring the arm to the chassis and repeatedly tightening the chain. Hardware was not the

only aspect of Parakonan that required updating, as the programming team pushed new code to the bot, fixing autonomous mode and adding features to teleop. (It's not a good idea to slam into the opponent's castle wall and knock over their drive station during autonomous, no matter how entertaining the result). With every iteration of hardware and software changes, Parakonan became an even more polished and refined robot, as was evident over the course of the weekend. Following a successful first day of the regional competition, the team debriefed over chicken parm and pizza, before heading home to collapse in bed/watch House of Cards.





Sunday Competition and Awards Ceremony:

The team reconvened early on Sunday, slightly more tired than the previous morning. The day in Waterbury started off very well with Amanda, our safety captain, receiving the Safety Star of the Day award for her articulate manner of answering the judge's questions and representing the team well. After the usual set up involved in preparing for the competition, the final qualifying matches began. It was also time for Team Paragon to give out our



awards to the teams we thought deserved them. The Scroll of Spirit was awarded to the Techno Nuts for their building spirit throughout the competition. The Engineering Design award with the Team 2064 for the lifting/climbing mechanism. And the Standard of Gracious Professionalism went to Team 3525, Nuts and Bolts of Fury, for helping us out with the updated code to connect to the drive station.

Parakonan and our drive team did very well, and were able to aptly coordinate movements with the other teams on our alliance, in part thanks to our scouters in the stands. We always managed to decide upon a set of defenses that we thought the opposing alliance would have the most trouble crossing. Thanks to the communication of the coach and hand eye coordination of the driver we were able to pull

off a particularly amazing feat involving the sallyport. One robot opened the door from behind, while the other sped through, with Parakonan just behind, crossing the defense twice in an incredibly short amount of time, and breaching the defenses in the last few seconds of the match. Over the course of the two days, the drive team and Parakonan became proficient at crossing the Cheval de Frise, which very few teams mastered. After the completion of the qualifying rounds, in which Paragon met varying levels of success, we ended up with a rank just below that of the alliance captains. Unfortunately we were



not picked to compete in the elimination matches, and while this was disappointing, we were able to drown our sorrows in the excellent lunch provided by the Pinckneys and returned to the stands to cheer for the other teams. We also took note of other robot's methods for

manipulating boulders, in order to improve the design of our own. After an exciting

afternoon of final matches, awards were given to the winners, as well as other more specific awards. Paragon received the prestigious imagery award, which celebrates “attractiveness in engineering and outstanding visual aesthetic integration of machine and team appearance”. The judges particularly appreciated our team’s blue and orange attire, including hats and capes, as well as the modular electroquarium and clean construction of our robot. Following the awards ceremony the team was in good spirits and stopped at Wendy’s before unloading at our build site.



Upcoming Events:

Hartford District Event: Hartford High School April 1-3rd

~Addison & Sam

