September 23, 2022

FOCUS

building (Group 1): Detailed Branstorming

building (Group 2): Working on Chassis

coding (Group 1): Master doc of commands

coding (Group 2): Controller Research

business (Group 1): Begun the new PR packet

business (Group 2): Newsletter, Instagram post

business (Group 3): Work on Sponsorships

SUMMARY

building (Group 1): We narrowed our ideas for the two robots and used whiteboards to draw out specific components. We took into account the physics that would affect our robot (center of gravity, torque) and drew diagrams to help us design. Specifically, we drew out the arm and lift and looked at parts that we could possibly prototype with. We also prioritized certain parts of the robot to build.

building (Group 2): Disassembled old chassis to re-use motors

coding (Group 1): We worked on making a master list of FTC Java terminology and commands as a resource for people to look back on when they need help writing an auton or teleop.

coding (Group 2): We did additional research on PID controllers. We found that we only really need to code a P and D variable, as both a D and I variable aren't really necessary. We found some pseudocode and started looking into past code.

business (Group 1): We looked at last year's packet for inspiration and begun creating the new one

business (Group 2): Since we're going to have a booth at the Cambridge Science Festival, we created an instagram post to promote the festival as well as ourselves. We also decided to have a newsletter (that we email to parents and members) instead of continuing to blog post on the website, so we wrote and formatted our first newsletter.

business (Group 3): Julia and Giulia started researching organizations that are either boston based, returning sponsors, women-owned, or STEM Focused

CHALLENGES

building (Group 1): We tried to use onshape for CAD, but after some exploration, we figured that we weren't fans of the user interface. Had some problems understanding how the telescoping arm would work.

building (Group 2): old screws had been assembled with loctite, so we had to use a heat gun to get them loose.

coding (Group 1): Some of the code wasn't well documented enough, so we didn't know what some of our code meant/how to interpret certain results.

coding (Group 2): PID can be math intensive and we'll have to hunt for old code

business (Group 1): We have started using a new color scheme for 20409 and graphical design is hard

business (Group 2): We had to figure out how to embed files in emails

NEXT STEPS

building (Group 1): Still figure out telescoping arm, then start prototyping!

building (Group 2): use our now-separated parts to re-assemble into a new chassis!

coding (Group 1): Documenting more complicated commands (OpenCV)

coding (Group 2): Look for old code, start writing code for PID

business (Group 1): Continue to work on the pages and begin to tget images

business (Group 2): Send out the newsletter and work on PR packet

business (Group 3): Continue and start reaching out