Project Goals and Plans for Botball 2019

Goals and Tasks for Botball 2019

Game Goals and Tasks

- For everyone to know the game rules and the due dates for all documentation. *February 4th*
    - Organize a group chat and identify dates *February 4th*
    - Get together and clarify any questions about game rules using team home base *February 4th*
- Move debris
    - Discuss and find an optimal route to reach the debris *February 11th*
    - Consult and discover the best way to sort through and move the debris *February 18th*

- Clear out flood victims
    - Find a way to move the flood victims without moving other game pieces *March 4th*
    - Sort the flood victims by whether or not they are injured, and move them to their respective sections on the game board *March 11th*

- Fix the broken power line
    - Create a program to get to the power lines and utilize the arm *March 11th*
    - Grab the magnets and re-attach them to their places. *March 11th*

- Get Bot Guy off the skyscraper
    - Engineer and arm that can carry the weight of Botguy, but is also precise enough to grab people and not interfere wit them. *February 11th - March 18th* (*February 11th - March 18th* build a new arm on our create to reach botguy and get botguy off the building *March 25th*)
    - Get Botguy off the building and move him to his respective spot

Robot Building Goals and Tasks

- Make a sketch for an arm to use on Create and start building it by *February 18th*
    - Agree on a design for the arm that is optimal for our tasks by *February 13th*
    - Create multiple prototypes so we can test out whether or not the arm designs would be compatible with the robot. *February 13th*
- Mount sensors and cameras to wallaby in a way they would stay in place and not fall off by *February 18.*
    - Identify the sensors that are required, and which ones would benefit us in competition. *February 18th*
    - Check whether or not everyone knows how to use the sensors. If not then get them acquainted with the sensors *February 18th*
- Sketch an arm that can be used by the Wallaby put over the people and pull them down from the stand and build it by *February 18.*
    - Agree on a design that won't offset the weight on the Wallaby. *February 18th*
    - Create multiple prototypes of that arm and attach them to the robot so we can test them. *February 18th*

Programming Goals and Tasks

- Get familiar with the motions of the robot
    - Have a day where people learn how to pace themselves while their programming. *February 11th*
    - Help people who weren't at the training to learn the basic functions. *February 11th*
- Get familiar with sensors
    - Know how to square up by *February 18th*
    - Know how to use the camera *February 18th*
- Get familiar with the camera
    - Learn how to identify burning buildings with the camera by *March 4th*
    - Make code according to the burning buildings by *March 11th*
- Learn how to code the create
    - Make sure the create works and make adjustments by *February 18th*
    - Assign a specific team to work on the create and only on the create *February 18th*

Documentation Goals and Tasks

1st Documentation Finish by: *February 6*

- Assign different topics to different groups of people to make the work easier, faster, and more manageable.
  - Speak with team members and consult with them on what they want to do. *February 4th*
  - Create a clear map of who will do what, and when they will do it. Divide and conquer. *February 11th*
- Gather the information from the teams that are programming and talk about tasks and goals that we want to accomplish.
- Turn in completed documentation by Wednesday *February 6th*

2nd Documentation Finish by: *March 4*

- Collect the information from the building team
  - Speak with the team members who are engineering the robot and any add ons for it. *February 11th*
  - Document important milestones and actions made by the building team. *February 18th*
- Collect data from programming

3rd Documentation Finish by: *April 1*

- Talk with teammates about the lessons we learned and the challenges we encounter and how we solved them so we can grow as a team.
  - Consult with all team members who contributed to the robot and ask what/how they did. *March 21st*
  - Complete documentation for the Botball competition by *March 25th*
- Go onto computers for everyone to take survey.

Schedule Conflicts

- Since we are in after-school program we would meet every Monday after school from 4-6pm
- The day the period one document is due *(2/6/2019)* is also an early dismissal day for our school so we must finish it the first session of the documenting by *(2/4/2019)*.
- Our Spring Break *March 8 2019* is not during any due dates so it will not affect the team drastically.
- On *April 3rd*, we have a half day and that will affect the team because there is a due date that day, meaning we will have to work together to complete that product before then.

Team Organization

- We will be meeting every Monday from 4 o'clock to 6 o'clock. As we get closer to the competition, we may have more meetings on other days of the week as needed.
- Move debris - Nolan, Anthony, clear out flood victims - William, Helen, Aminah, Fix the broken power line - Nolan, Turner, Get Bot Guy off the skyscraper - Matthieu, Anthony, Sai.
- In the process of being on a team, we may run into some conflicts. First we will try to explain our respective points of respectfully and try to come to an agreement. If we still cannot agree on something, we will go to our student leaders, Jimena and Matthieu and ask them to help us solve our disagreement. If we still cannot come to a compromise, we will go to a higher power, Mrs. Wegscheid and she will decide for us.
- **Documentation:** Jimena, Matthieu and Nicolas would be the ones working on the documentation and collecting the data and comments on the programming group.