

Haverhill Robotics
19-0111

Period One - Project Plan

Goals and Tasks for Botball 2019

Game Goals and Tasks

1. Finish Building the Game Board; **Due: February 15th, 2019**
 - a. Task #.1: Make sure all materials needed are acquired;

Due: February 8th, 2019
 - b. Task #.2: Assign team members to build the board;

Due: February 8th, 2019
2. Begin first rounds of testing for our robots; **Due: February 27th, 2019**
 - a. Task #.1: Early stages of code should be completed;

Due: February 27th, 2019
 - b. Task #.2: Working prototypes of our robots should be completed;

Due: February 27th, 2019
3. Make final preparations for competition day; **Due: April 24th, 2019**
 - a. Task #.1: Create a competition day checklist that can be used to organize our robots and items before and on competition day;

Due: April 5th, 2019
 - b. Task #.2: Create a “to-go” parts kit that can be used to make repairs to our robots on site during the competition;

Due: April 24th, 2019

Robot Building Goals and Tasks

1. Test first prototype of the robot; ***Due: February 27th, 2019***
 - a. Task #.1: Brainstorm ideas about features and tasks we want our bot to reach;
Due: February 15th, 2019
 - b. Task #.2: Check if the robot moves and motor is connected;
Due: February 27th, 2019
2. Test the second prototype of the robot; ***Due: March 13th, 2019***
 - a. Task #.1: Analyze the success and problems of the first version of the robot based off its first test run;
Due: March 1st, 2019
 - b. Task #.2: Complete the necessary modifications, that will improve the prototype of our robot;
Due: March 13th, 2019
3. Finalize all the changes and necessary preferences needed for our robot to work before the competition; ***Due: April 24th, 2019***
 - a. Task #.1: Repeat tasks one and two from *Test the second prototype of the robot* based on how many versions of our robot are made;
Due: March 27th, 2019
 - b. Task #.2: Make any last minute tweaks to our robots before competition day;
Due: April 24th, 2019

Programming Goals and Tasks

1. Test first prototype of the code; ***Due: February 27th, 2019***
 - a. Task #.1: Brainstorm ideas about features and tasks we want our bot to reach;
Due: February 15th, 2019
 - b. Task #.2: Check if the robot moves and sensors work;
Due: February 27th, 2019
2. Test the second prototype of the code; ***Due: March 13th, 2019***
 - a. Task #.1: Analyze the success and problems of the first version of the code based off its first test run;
Due: March 1st, 2019
 - b. Task #.2: Complete the necessary edits, that will improve the prototype of our code;
Due: March 13th, 2019
3. Finalize all the changes and necessary preferences needed for our robot to work before the competition; ***Due: April 24th, 2019***
 - a. Task #.1: Repeat tasks one and two from (*Test the second prototype of the cod*) based on how many versions of our code have been created;
Due: March 27th, 2019
 - b. Task #.2: Make any last minute tweaks to our code before competition day;
Due: April 24th, 2019

Documentation Goals and Tasks

1. Submit Documentation for Period 2; ***Due: March 15th, 2019***
 - a. Task #.1: Gather and compile the information needed for the “Mechanical Systems Design” portion of the documentation;
Due: March 8th, 2019
 - b. Task #.2: Gather and compile the information needed for the “Code Review Document” portion of the documentation;
Due: March 10th, 2019
 - c. Task #.3: Prepare the “Code Review Document” and “Mechanical Systems Design” for submission;
Due: March 15th, 2019
2. Submit Documentation for Period 3; ***Due: April 26th, 2019***
 - a. Task #.1: Complete the required survey for Period 3;
Due: April 12th, 2019
 - b. Task #.2: Review our team’s work for the year and compare the information and data to our previous years;
Due: April 12th, 2019
 - c. Task #.3: Compile the information gathered and prepare it for submission;
Due: April 14th, 2019
3. Prepare for the Onsite Presentation; ***Due: April 28th, 2019***
 - a. Task #.1: Create any visual aids that will assist in the onsite presentation;
Due: April 26th, 2019
 - b. Task #.2: Review the information that will be presented and practice the presentation;
Due: April 28th, 2019

Schedule Conflicts

1. Schedule Conflict #.1 February Vacation

- **Meeting(s) missed:**
 - February 20th, 2019
 - February 22nd, 2019
- The state of Massachusetts closes schools for one week in February for a scheduled recess. Therefore the location at which we meet will be inaccessible.

2. Schedule Conflict #.2 Teachers Workshop

- **Meeting(s) missed:**
 - March 20th, 2019
- The school where we meet has a day scheduled for teacher workshops. Therefore students are let out on an early release and are not allowed to return.

3. Schedule Conflict #.3 April Vacation

- **Meeting(s) missed:**
 - April 17th, 2019
 - April 20th, 2019
- As with the meetings we miss in February, the state of Massachusetts closes schools for the week of April 14th and the place where we meet will be unavailable.

Team Organization

Meeting Schedule:

- February 2019:
 - 1st, 6th, 8th, 13th, 15th
- March 2019:
 - 1st, 6th, 8th, 13th, 15th, 22nd, 27th, 29th
- April 2019:
 - 3rd, 5th, 10th, 12th, 17th, 19th, 24th, 26th

Division of Team Labor:

Our team's labor is divided between five different groups; Public Relations(PR), Programing, Building, Documentation and Board Building. Each of these teams has a captain who is well versed and is experienced in their respective category. Their job is to oversee and manage all of the members within the group, and to help their group members if they get stuck or are in a difficult situation. We also have two captains who oversee each group and make sure everything is running smoothly. Each group's captain will assign roles based on the scenario and needs of the project. The groups must cooperate to make sure that they are keeping on task and are able to finish their objectives and goals on time. This allows the utmost organization for each group and the team.

Adult Supervisor: Mr. Ashbrook

Team Building the Create: Jeff, Wes and Nick

Team Building the Wallaby: Devin, Austin and Jackson

Team Programing the Create: Zack, Sam and Nate

Team Programing the Wallaby: Dan, Bryce and Jimmy

Documentation Team: Liam, Owen, Bernard and Joe

Declan and Olivia are the student team leaders

Conflict Resolution:

The way our team handles conflict is through democratic compromise. That way, every group member can contribute to the team. The first step in this process is to hold a meeting, where everyone is given a chance to speak. All of the ideas and suggestions presented by our members are immediately considered for implementation into our strategy. If a suggestion is not voted unanimously by the team, we then try to implement all ideas into one collective plan so our strategy is productively diverse and keeps everyone's morale high. Another way we handle team conflict is by taking a

democratic vote. If a decision cannot be made on an idea, and the implementation of numerous ideas does not seem plausible, we resort to taking a vote on which idea works with our strategy. If one idea receives more votes, then that idea is chosen to be a part of our team's strategy.
