Period One - Project Plan

Goals and Tasks for Botball 2019

I. *Game Goals and Tasks*
   A. Leaders read and review game rules, 01/18/19
      1. Print out Botball Game Review and board blueprint, 01/21/19
      2. Plan a meeting date between leaders, 01/18/19
   B. Assemble the practice board, 01/25/19
      1. Take inventory of what supplies we have, 01/23/19
      2. Create a list of materials that need to be bought and send it to club advisor, 01/23/19
   C. Discuss possible game strategies with the team, 02/04/19
      1. Leaders will debrief the team on where points can be obtained and how the board is set up, 02/04/19
      2. Record agreed upon ideas in a shared Google document, 02/04/19

II. *Robot Building Goals and Tasks*
   A. Prototype the Create and LEGO robots, 02/06/19
      1. Create a drawing for each robot based on the tasks that the team wants each robot to accomplish, 02/06/19
      2. Create a checklist of allowed materials for each robot, 02/08/19
   B. Modify robot strategies based on their performance on test runs, 02/11/19
      1. Observe the robots performing multiple full runs and take notes on what consistently worked or failed, 2/13/19
      2. Discuss with the team possible alternatives to strategies, setups, and/or constructions, 02/13/19
   C. Finalize the constructions of robots, 02/22/19
      1. Rebuild robots according to revisions, 02/25/19
      2. Perform multiple retests and ensure each robot can complete all desired tasks, 03/04/19

III. *Programming Goals and Tasks*
   A. Break the code down into multiple threads, 03/11/19
      1. Decompose the robots' tasks into clear, distinct steps and write pseudocode, 03/20/19
      2. Establish well-defined global variables that functions can use to communicate with each other, 03/25/19
   B. Complete Create robot's code, 04/24/19
      1. Complete programming of robot movement, 04/17/19
      2. Complete programming of claw movement, 04/17/19
      3. Run multiple tests with both builders and programmers present, 04/17/19
   C. Complete LEGO robot's code, 04/24/19

1. Complete programming of robot movement to collect materials, 04/17/19
2. Complete programming of blue pom collection system, 04/17/19
3. Run multiple tests with both builders and programmers present, 04/17/19

IV. **Documentation Goals and Tasks**
   A. First Period Documentation Completion, 02/06/19
      1. Establish goals and tasks for each team working on a robot for the season, 02/01/19
      2. Have multiple members go through and revise the documentation, 02/06/19
   B. Second Period Documentation Completion 03/13/19
      1. Perform testing and collect data on the claw of the Create robot, 03/04/19
      2. Perform testing and collect data on the box collection system of the LEGO robot, 03/04/19
      3. Have builders and programmers discuss revisions based on tests, 03/04/19
      4. Outline and create mechanical system designs for robots, share with everyone, 02/18/19
      5. Outline and create code review document, share with everyone, 02/22/19
   C. Third Period Documentation Completion 4/24/19
      1. Send out an email to everyone with the link to the survey attached, 03/18/19
      2. Team leaders will discuss what they learned from the whole season, 04/22/19

V. **Schedule Conflicts**
   A. Dual enrollment Advanced Java Programming class (generally on Mondays and Thursdays) - Several team members will have to leave early
   B. February Vacation (2/19 - 2/23) - No school
   C. April Vacation (4/16 - 4/20) - No school
   D. Some members are part of sports teams
      1. Baseball : (March - May)
      2. Tennis: (March - May)

Team Organization

Meeting Schedule

New England Botball Workshop: January 25
Regional Tournament: April 27

January

Mon	Tue	Wed	Thu	Fri
	1	2	3	4

7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

February

Mon	Tue	Wed	Thu	Fri
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	

March

Mon	Tue	Wed	Thu	Fri
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

April

Mon	Tue	Wed	Thu	Fri
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29				

Meeting Dates (from 3 - 6 p.m.)

Division of Labor

Role	Name
Club Advisor	Brian Morrison
Club Leader	Daniel Augustin
Programming (Create)	Daniel Augustin, Jacky Luong
Programming (LEGO)	Felix Li, Sean Tran
Building	Manuela Cardona, Khiem Nguyen
Documenting	Felix Li, Michelle Nie

Conflict Resolution
If disagreements occur between teammates at any point during the season:
1. The teammates must ensure that they are on the same page as to what they are arguing about.
   a. Once they understand what the issue and its scope, they will attempt to resolve the dispute on their own.
2. If the teammates cannot compromise, they will go to the team leaders, who will help bring the conflict to a resolution.
3. If the team leaders also cannot decide on a compromise, the issue will be open to discussion and voting to the whole team.