

## **Period 1-Project Plan**

### **Goals and Tasks For Botball 2019**

#### **Game Goals and Tasks**

1. Year Overview, 12/7/18
  - a. Learn and teach basics of building, including techniques, 10/26/18
  - b. Learn and teach basics of coding, 11/16/18
2. Brainstorm Strategies, 1/26/19
  - a. Brainstorm and develop game plan and strategy, 1/25-26/19
  - b. Discuss ideas and come to consensus, 1/26/19
3. Organize Parts, 1/25/19
  - a. Print list of parts for cataloging and sorting parts, 1/25/19
  - b. Organize parts into tool kit, 1/25/19
4. Construct Game Board, 3/9/19
  - a. Build skyscrapers, 1/26/19
  - b. Organize PVC pipes, 3/1/19
  - c. Construct coupler, 3/1/19
  - d. Mark zones on board, 3/2/19
5. Learn Game Rules, 2/15/19
  - a. Designate a team member to learn rules for future reference, 1/25/19
  - b. Read resources from Homebase and denote important information, 2/15/19

#### **Robot Building Goals and Tasks**

1. Design and draw robot prototypes, 2/2/19
  - a. View different sketches to formulate ideas, 1/26/19
  - b. Design “tick” system for Robot A, 2/1/19
  - c. Design “hook” system for Robot B, 2/2/19
2. Finalize prototype for Robot A, 3/1/19
  - a. Build rigid arm that serves as the crane for the two-part mobile grabber, 3/1/19
  - b. Build jointed system that reaches the base of the board, 3/2/19
  - c. Build hook and pincher system that opens and closes around food and medicine blocks, 3/2/19
3. Finalize prototype for Robot B, 3/1/19
  - a. Build base of robot, 2/8/19
  - b. Build hook system, including glue dots, that will drag the PVC coupler, 2/15/19

#### **Programming Goals and Tasks**

1. Write pseudocode for both robots, 2/9/19
  - a. Approximate values to put in code, 2/9/19
  - b. Comment in every action of the robot, 2/9/19
2. Complete programming for Robot-A and Robot-B, 3/16/19

- a. Complete programming for Robot-A, 3/3/19
  - b. Test robots and determine actual values, 3/10/19
  - c. Adjust code and values as needed with further testing, 3/16/19
3. Find the distances the robots will move on the board, 3/10/19
  - a. Calculate dimensions for the test board, 3/3/19
  - b. Determine how the two robots will move on the board, 3/3/19

### **Documentation Goals and Tasks**

1. Complete Period 1 (Project Plan) Documentation, 1/30/19
  - a. Organize division of labor, 1/26/19
  - b. Communicate with building and coding groups to find out goals, 1/26/19
2. Complete Period 2 (Mechanical and Code Review) Documentation, 2/27/19
  - a. Take pictures of robots, 2/15/19
  - b. Meet with coding group to understand code, 2/15/19
  - c. Meet with building group to understand the construction, 2/15/19
3. Complete Period 3 (Lessons Learned and Survey) Documentation, 4/3/19
  - a. Distribute work among documentation members, 3/20/19
  - b. Give out survey to team members about season experience, 3/20/19

### **Schedule Conflicts**

1. Winter Break and Grade-Level Exams: No school for two weeks and no meetings for one month, 12/21/2018 to 1/24/19
2. Swim Team ISLs, 1/25/19
3. Swim Team WMPSSDLs, 2/2/19
4. Swim Team METROS, 2/9/19
5. NAIMUN, 2/14/19 to 2/16/19
6. Winter Play: Performance Dates, 2/22/19 to 2/23/19
7. Coffeehouse Performance Date, 3/16/19
8. Spring Break: No school for one week, 3/21/19 to 4/1/19

## Team Organization

### Schedule of Meetings

### 2018/2019 Calendar

October						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

March						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

April						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

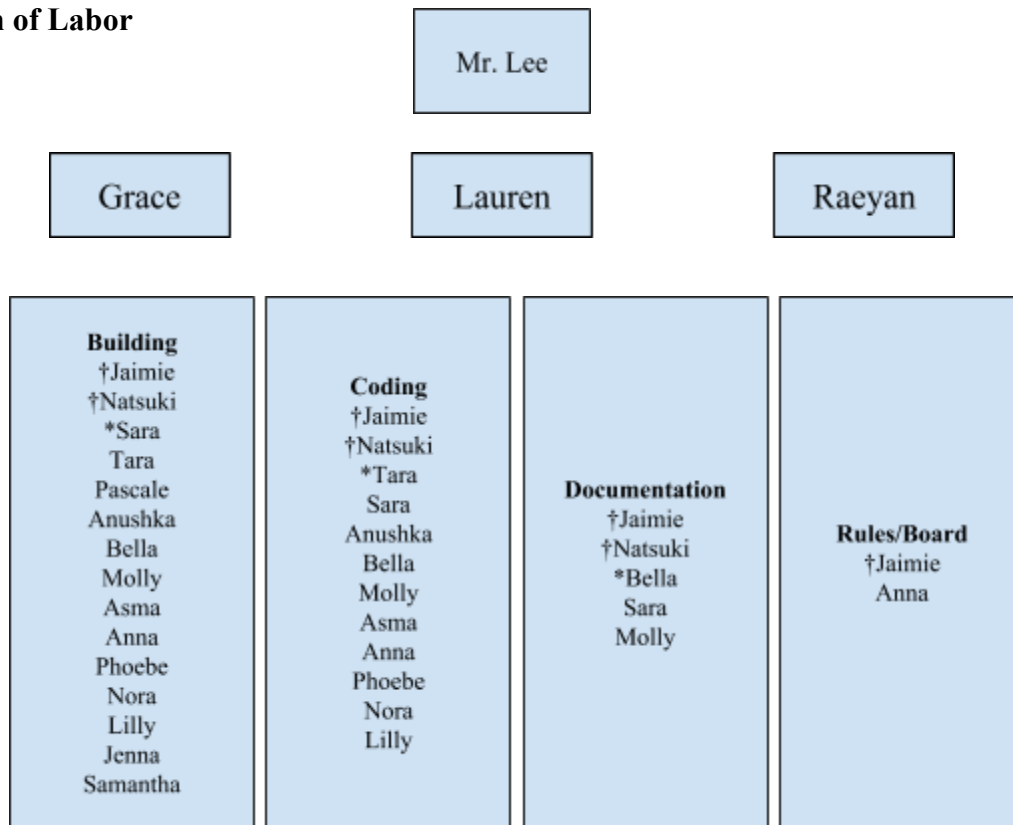
#### Key-

 - Meeting Dates

 - Documentation Deadlines

 -Botball!

## Division of Labor



\*Denotes group leader

†Denotes team captains

## Conflict Resolution

The team has agreed that if an argument arises, they will be handled with the following steps:

1. Team members who have a disagreement will try to find a resolution among themselves without involving other members of the team.
2. If the team members cannot resolve the problem by talking amongst themselves, the team members involved in the conflict will go to the team captains, Jaimie and Natsuki
3. If the team captains cannot resolve the problem, the team members involved and the team captains will go to the club executives: Grace, Lauren, and Raeyan.
4. If the club presidents cannot resolve the problem, the team members will take the disagreement to Mr. Lee, the club advisor. His resolution is absolute.
  - a. If the team members that are disagreeing are the presidents, then the problem will be taken to Mr. Lee immediately.