

# Period 1 Documentation - Project Plan

Walter Johnson Robotics # 0571 - DC / Virginia

## **Goals and Tasks for Botball 2019**

### **1. Game Goals and Tasks**

- a. Review all game materials, movies, FAQs, and information, 1/31/2019
  - i. Print copies of Game Review, 1/29/2019
  - ii. Watch game video as a team at a meeting, 1/31/2019
- b. Build Practice Game Board, 2/2/2019
  - i. Count existing parts that will be used for the game board, make list of needed parts (Members will go to Home Depot and purchase parts), 1/29/2019
  - ii. Assemble game board as team over a few lunch meetings (week of 1/29/2019), 2/2/2019
- c. Brainstorm Strategies, 2/6/2019
  - i. Discuss strategies as a team. The adult and student team leaders will lead the discussion. 2/5/2019
  - ii. Team will vote on strategies, and those agreed upon will be adopted by the team, 2/6/2019

### **2. Robot Building Goals and Tasks**

- a. Prototype robots (Create and LEGO), 2/9/2019
  - i. Use strategies from brainstorming session to build prototype LEGO robot, 2/8/2019
  - ii. Use strategies from brainstorming session to build prototype Create robot, 2/9/2019
- b. Complete LEGO Robot Construction, 2/28/2019
  - i. Begin the brainstorming for additional claws / arms, 2/26/2019
  - ii. Begin the prototyping/testing of mechanical components, 2/27/2019
- c. Complete Create Robot Construction, 2/28/2019
  - i. Begin the brainstorming for sensing appendages, 2/26/2019
  - ii. Begin the prototyping/testing of sensing appendages/other mechanical components, 2/27/2019

### **3. Programming Goals and Tasks**

- a. Make and run test programs, 1/28/2019
  - i. Program basic movements (at workshop), 1/19/2019
  - ii. Program camera to work (at workshop), 1/20/2019
- b. Complete program for LEGO robot, 3/30/2019
  - i. Program drive function for moving the robot, 2/9/2019
  - ii. Program function for seed bin claw, 2/21/2019
  - iii. Collaborate with build team to make program and robots compatible, 2/29/2019
- c. Complete program for Create robot, 3/30/2019

- i.* Program function for line following, 2/9/2019
- ii.* Program camera function for grabbing botguy, 2/21/2019
- iii.* Collaborate with build team to make program and robots compatible, 2/29/2019

#### **4. Documentation Goals and Tasks**

- a.** First Period Documentation Complete, 1/30/2019
  - i.* Gather information necessary from Building and Programming teams (goals and tasks), 2/9/2019
  - ii.* Assign tasks, agree on conflict resolution, and compile information into P1 documentation, 2/12/2019
- b.** Second Period Documentation Complete, 2/27/2019
  - i.* Gather information from building team for assignment, 3/16/2019
  - ii.* Gather information from programming team for assignment, 3/16/2019
- c.** Third Period Documentation Complete, 4/3/2019
  - i.* Get all members to complete survey (3/30/2019), have all surveys complete 4/2/2019
  - ii.* Hold team discussion about lessons learned, record all ideas, 4/2/2019

#### **5. Schedule Conflicts**

- a.** President's Day – No School – No meeting 2/18/2019
- b.** Early Release Day – No meeting 2/18/2019
- c.** Early Release Day - No meeting 4/3/2019

## Team Organization

### Schedule of Meeting Times (Jan-Apr 2019):

	Indicates Lunch meeting (40 minutes)
	Indicates After School Meeting (2 hours +)
	Indicates Documentation Period Due
	Indicates Workshop Dates – 1/19-1/20/2019
	Schedule Conflict: No School(No Meeting)
	Indicates Tournament Date – April 6, 2019

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
JAN	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
FEB						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		
MAR						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						
APR		1	2	3	4	5	6

### Division of Labor:

Adult Team Leaders: George Lavelle, Fedor Mechukov

Student Team Leader: Jason Harriot

Robot Building Team: Jason Harriot, Jaidon Smith, Catherine Fang, Nicola Spindler, Maxim Kitsul

Programming Team: Kevin Canha, Derrick Priester, Anders Spire, Alexandra Maric

Documentation Team: Kevin Canha, Amy Tran, Gerald Gruber

Underlined names are the leaders of their respective teams.

### Conflict Resolution:

If a problem or disagreement arises, our team has agreed to the following steps of mitigation and resolution:

1. Team members who disagree will first talk it out amongst themselves. Everybody will have a right to voice their opinions and their sides of the argument.
2. If talking about it does not solve the argument, the team members in disagreement will

bring their arguments to the student team leader.

3. If there is still no agreement reached, the team members in disagreement will consult with Mr. Lavelle, the adult team leader. Mr. Lavelle will either make a decision or will bring the issue at hand to the team. The members of the team will take a vote, and the majority of votes in favor of one idea will determine what is adopted by the team.