

**Period One Project Plan**

**Goals and Tasks for Botball 2019**

<b>Game Goals and Tasks</b>	<b>Deadlines</b>
1. Introduce basic game rules <ul style="list-style-type: none"> <li>a. Have a powerpoint ready with picture of game board</li> <li>b. Have the demo bot and create bot ready to show</li> </ul>	1/23/19 1/23/19 1/23/19
2. Split team into three groups <ul style="list-style-type: none"> <li>a. Identify members' preferred placement</li> <li>b. Identify members' strengths</li> </ul>	1/31/19 1/23/19 1/23/19
3. Build practice board <ul style="list-style-type: none"> <li>a. Order materials from Home Depot</li> <li>b. Gather build team to put board together</li> </ul>	2/11/19 2/6/19 2/11/19
4. Develop game strategy <ul style="list-style-type: none"> <li>a. Distribute scoring sheet to everyone</li> <li>b. Brainstorm various strategies in small groups and vote on best one</li> </ul>	2/6/19 1/25/19 2/4/19

<b>Robot Building Goals and Tasks</b>	<b>Deadlines</b>
1. Inventory all parts <ul style="list-style-type: none"> <li>a. Create a Master List of all parts then separate into smaller lists</li> <li>b. Color code the lists for easier item management</li> </ul>	1/25/19 1/23/19 1/24/19
1. Prototype the Create and non-Create robots <ul style="list-style-type: none"> <li>a. Create a diagram for Create with a parts list and clearly identified mechanisms based on the strategy discussed with the whole team</li> <li>b. Create a diagram for non-Create robots with a parts list and clearly identified mechanisms based on the strategy discussed with the whole team</li> </ul>	2/6/19 2/4/19 2/6/19
1. Finish the construction of Create robot <ul style="list-style-type: none"> <li>a. Create a claw and extension mechanism to extend and retract the robot claw</li> <li>b. Create a straight edge to allow Create to square up</li> <li>c. Create collection tray for the transport of game pieces</li> </ul>	2/27/19 2/23/19 2/25/19 2/27/19
1. Finish the construction of the non-Create robot <ul style="list-style-type: none"> <li>a. Build the chassis</li> <li>b. Attach and adjust the line following sensor</li> <li>c. Build the scooping mechanic</li> </ul>	2/27/19 2/23/19 2/25/19 2/27/19

<b>Programming Goals and Tasks</b>	<b>Deadlines</b>
1. Construct the Bot Library <ul style="list-style-type: none"> <li>a. Build foundation for our bot's library (Outline methods)</li> <li>b. Implement precise turns within the library</li> <li>c. Implement methods that utilize all analog sensors</li> <li>d. Implement methods that utilize all digital sensors</li> </ul>	2/14/18 2/6/18 2/7/18 2/13/18 2/14/18
2. Program the Create Bot <ul style="list-style-type: none"> <li>a. Implement the Roomba precise movements</li> <li>b. Implement the extend claw mechanism</li> </ul>	3/13/18 2/19/18 3/6/18
3. Program the Non-Create Bot <ul style="list-style-type: none"> <li>a. Implement "fire" detection code</li> <li>b. Implement code to detect different blocks</li> </ul>	3/13/18 2/27/18 2/28/18

<b>Documentation Goals and Tasks</b>	<b>Deadlines</b>
4. First Period Documentation Complete Meeting to go over tasks that need to be completed for documentation <ul style="list-style-type: none"> <li>a. We have to choose our documentation leaders</li> <li>b. We have to go over our plan and tasks we are required to do for documentation</li> <li>c. Lastly we need to set up a document where all of the members can access it</li> </ul>	1/20/19 1/21/19 1/21/19 1/21/19
1. Second Period Documentation Complete <ul style="list-style-type: none"> <li>a. Regroup with the building and programming team to go over deadlines once again. To make sure we are on schedule.</li> <li>b. Finalize documentation team and start planning to create the video required for the competition</li> </ul>	2/25/19 2/4/19 2/13/19
1. Third Period Documentation Complete <ul style="list-style-type: none"> <li>a. Create a survey for everyone to take and collect information on what members learned</li> <li>b. Create one more survey to check in with all of the different teams. Make sure everyone is on task and we are progressing forward.</li> </ul>	2/4/19 2/4/19 3/4/19

<b>Schedule Conflicts</b>	<b>Deadlines</b>
<ul style="list-style-type: none"> <li>● Finals week</li> </ul>	1/28/19 - 1/31/19
<ul style="list-style-type: none"> <li>● School improvement days - No school</li> </ul>	2/1/19 4/5/19
<ul style="list-style-type: none"> <li>● Presidents day - No school</li> </ul>	2/18/19

## **Team Organization**

### Meeting Schedule:

Regional workshop: January 20th and 21st

Regional Tournament: April 7th

Meetings will go from 3:00pm - 5:00pm or until 6:00pm if needed

January: 23, 24

February: 4, 6, 7, 11, 13, 20, 21, 25, 27

March: 4, 6, 7, 11, 13, 18, 20, 21, 25, 27, 28

April: 1, 3, 4

### Division of Labor:

Coaches: Mr. Kim, Ms. Langchung, Mr. Vergara

Student Team Leaders: Andrew, Luke, Marcin, Mia

Programming Team: Ariana, Christian, Maxwell, Vanessa

- Documentation: Alan, Leona, Nidia

Building Team: Nina, Rebecca, Samantha, Sydney

- Documentation: Diana, Lily, Tia

### Conflict Resolutions:

The team has agreed that if disagreements occur we will handle them in the following way:

1. Team members who are in disagreement will first try to work out the problem/argument. The team members must allow everyone to express their opinions and thoughts one at a time and attempt to reach resolution.
2. If resolution cannot be reached, the team members will bring their problem to their designated student team leader.
3. If a solution is not reached still after involvement of the team leader the situation will be brought up to an adult leader. This can include any of the following leaders: Ms. Langchung, Mr. Kim, or Mr. Vergara. One of those adult leaders will decide how to resolve the conflict or one of them will bring it to the team for discussion and a team vote. The adult leader's decision or the team vote will be final.