# Period One - Project plan

#### Goals and Tasks for Botball 2019

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Game Goals and Tasks	Deadlines
1. Review the game rules, movies and game documents	01/16/19
a. Use Computer and projector to show video's.	01/16/19
b. Distribute game rules to each team member	01/16/19
c. Review documentation with all team members	01/16/19
d. Give digital copies of all documentation to each team member.	01/16/19
2. Build Practice Board	01/19/19
a.Team and Parent volunteers will help team leader assemble game board.	01/18/19
b. Set the Game Board pieces up according to instructions.	01/19/19
3. Set Strategies for Game and Robot Goals	01/21/19
a. Discuse game strategies and record for future use	01/21/19
b. Discussion of options by team captain and vote on the game strategies to use for the season	01/21/19
c. Document to compare progress.	continuous
Robot Building Goals and Tasks	Deadlines
1. Prototype the Create and LEGO Robots	02/06/19
a. Sketch a basic layout of arms and attachments for Creat Robot to achieve	02/06/19
strategy goals.	
b. Sketch a layout of the concept for the LEGO robot using the chosen	02/04/19
strategy	
2. Complete Construction of Create Robot	
a. Construct grab device as needed to meet goals.	02/18/19
b. Construct holding mechanism as needed to meet goals.	02/18/19
c. Add any additional sensors that may be needed to meet goals.	as needed
3. Complete Construction of LEGO Robot	02/18/19
a. Complete construction of robot.	02/18/19
b. Calculate approximate center of mass to balance.	02/18/19
b. Construct arm and claw device	02/18/19
c. Add sensors	as needed
Programming Goals and Tasks	Deadlines
1. Create and run learning test programs	
a. Program basic movements to understand basic programming	02/11/19
to master straight line movement, turns and distance.	
<ul> <li>b. Program sensors mounted on Robots to understand how the work and programming.</li> </ul>	as needed
2. Complete Programing for Create Robot	02/22/19

a. Use paper to write the basics of programming needed to perform tasks	02/22/19	
and goals as set.	02/22/19	
b. Program grab device usage		
c. Program robot to use holding mechanism		
d. Program sensors mounted on robot		
e. Program navigation according to game strategies		
f. Test all programming for Create robot	continuous	
3. Complete Programingf for LEGO Robot		
<ul> <li>a. Use paper to write the basics of programming needed to perform tasks and goals</li> </ul>	02/22/19	
b. Program trap device	02/22/19	
c. Program sensors mounted on Robots	02/22/19	
d. Program navigation according to game strategies		
e. Test all programming for LEGO robot	02/22/19 continuous	
	continuous	
Documentation Goals and Tasks	Deadlines	
1. First Period Documentation Complete	01/28/19	
a. Have team meeting to set schedule, set leaders, assign tasks and set	01/28/19	
policy to resolve dissagreements.		
b. Gather ideas from team to establish goals and deadlines for season	01/28/19	
2. Second Period Documentation Complete		
a. Have team gather information, videos and pictures to document progress.	02/20/19	
b. Have team gather information and screenshots to document progress	02/20/19	
3. Third Period Documentation Complete	03/06/19	
a. Have team have a roundtable discussion on what whas learned, what	03/06/19	
were the problems and other comments from team members.	03/06/19	
b. Have team members take survey	03/06/19	
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Schedule Conflicts	Deadlines	
1. Basketball - Various members absent	various	
2. 4-H Competition Practice - Several members absent		
3. Academic Meet - Various members absent	various various	

# **Team Organization**

# Schedule of Meeting Times

Meeting will run from 5:30pm to 7:30pm		
January Schedule	14th, 16th, 21st, 23rd, 28th, 30th	
February Schedule	4th, 6th, 11th, 13th, 18th, 20th, 25th, 27th	
March Schedule	4th, 5th, 6th, 7th	
<b>Regional Tournament</b>	March 9th	

#### **Division of Labor**

Adult Team Leader: David Trimble Student Team Leader: Abel Robot Building Team: Anthony 1, Anthony2, Programmers: Abel, Tyson, Documentation Team: Tyson, Anthony 1

#### **Conflict Resolution**

The team agrees that if disagreement occurs, it will be handled with the following procedures:

1. If a disagreement occurs, Team Members will attemp to work out the situation between themselves.

2. If a solution to the disagreement cannot be made, the team members involved will bring it to the Student Team Leader who will attempt to get members to work out a solution.

3. If a solution to the disagreement cannot be worked out with the Student Team Leader involved, or the conflict involved or involves the Student Team Leader, the Adult Team Leader will settle the disagreement or will bring possible solutions to the team for discussion. The team will vote so settle the disagreement. The Adult Team Leader's decision or the team vote decision will be the final outcome.

4. At all time, the process will remain calm and each team member, Team Leader and Adult Team Leader shall respect the final decision.