

Period 1: Project Plan

Goals and Tasks for Botball 2019

| <i>Game Goals and Tasks</i> | <i>Deadline</i> |
|---|------------------------|
| 1. Goal Collect blue poms | 3/9/19 |
| <ul style="list-style-type: none"> Task build a claw capable of gathering all 15 blue poms | 1/30/19 |
| <ul style="list-style-type: none"> Task build a capture mechanism for the blue bin | 2/17/19 |
| 2. Goal Grab the people and place them in the hospital | 3/9/19 |
| <ul style="list-style-type: none"> Task Create a robot capable of moving a claw up and down while closing on complex objects | 1/30/19 |
| <ul style="list-style-type: none"> Task Code a program that is able to differentiate the two colors of people. | 3/3/19 |
| 3. Goal Place the Mayor and Botguy in the start box | 3/9/19 |
| <ul style="list-style-type: none"> Task Build a long claw capable of sustaining the weight of botguy while being able to lift him great distances. | 1/30/19 |
| <ul style="list-style-type: none"> Task create a program that will be able to determine if there is anything in each building. | 3/3/19 |

| <i>Robot Building Goals and Tasks</i> | <i>Deadline</i> |
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| 1. Goal Build a blue pom sorter | 2/17/19 |
| <ul style="list-style-type: none"> Task build a mount for the ET sensor. | 2/17/19 |
| <ul style="list-style-type: none"> Task build a paralleling arm capable of holding the claw. | 2/3/19 |
| 2. Goal Build a people sorter | 2/17/19 |
| <ul style="list-style-type: none"> Task build a drivetrain able to support a large and moving weight. | 2/3/19 |
| <ul style="list-style-type: none"> Task build a claw capable of moving up/down and | 2/3/19 |

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| left/right simultaneously. | |
| 3. Goal Tower bot | 2/17/19 |
| <ul style="list-style-type: none"> Task build a long claw capable of supporting another servo at the top of it. | 2/3/19 |
| <ul style="list-style-type: none"> Task build a mount for the rubber bands to provide less strain on the servos. | 2/6/19 |

| <i>Programming Goals and Tasks</i> | <i>Deadline</i> |
|---|------------------------|
| 1. Goal create a program to collect and sort blue poms | 3/3/19 |
| <ul style="list-style-type: none"> Task create a line following program for the blue tape | 2/28/19 |
| <ul style="list-style-type: none"> Task create functions for the ET sensor to detect the blue bin | 2/28/19 |
| 2. Goal create a program to sort the people in the correct hospital | 3/3/19 |
| <ul style="list-style-type: none"> Task create a program to line follow the blue line in front of the buildings | 2/28/19 |
| <ul style="list-style-type: none"> Task create a program that uses the ET to detect when the robot is in front of people | 2/28/19 |
| 3. Goal design a program to lift botguy and the mayor | 3/3/19 |
| <ul style="list-style-type: none"> Task program the claw to raise to the highest building and grab botguy | 2/28/19 |
| <ul style="list-style-type: none"> Task create an ET sensor program to detect which building the mayor is trapped in | 2/28/19 |

| <i>Documentation Goals and Tasks</i> | <i>Deadline</i> |
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| 1. Goal Finish period 1 | 1/28/19 |
| <ul style="list-style-type: none"> Task collect information from each team of the status of their robot | 1/27/19 |

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| <ul style="list-style-type: none"> Task compile information into a google doc and submit to KIPR.org | 1/27/19 |
| 2. Goal Finish the regionals preparation | 3/8/19 |
| <ul style="list-style-type: none"> Task finish the remaining online documentation | 3/6/19 |
| <ul style="list-style-type: none"> Task gather the supplies for our onsite board/presentation | 3/7/19 |
| 3. Goal Mentor the new team members in documentation | 3/8/19 |
| <ul style="list-style-type: none"> Task explain the fundamentals of how documentation is carried out | 3/6/19 |
| <ul style="list-style-type: none"> Task mentor new members on public speaking for documentation presentations. | 3/8/19 |

| Schedule Conflicts | Deadline |
|---|-----------------|
| Oklahoma State VEX® Robotics Competition High School Robotics Championship - one member will be absent from Botball Regional Tournament | 03/09/2019 |
| Competitive acting and debate regionals - two members will be absent from Botball Regional Tournament | 03/09/2019 |
| Sooner Theater performances | 03/09/2019 |

Team Organization

Schedule of Meeting Times:

4:30-7:30 PM unless otherwise specified

January: 16,17,20,23,24,27,30,31

February: 3,6,7,10,13,14,17,20,21,24,27,28

March: 3,6,7,8

Division of Labor:

Loose team structure with everyone being held equal in the eyes of the team. Most members help program and build on their robots. Each robot team of about five people has one person responsible for submitting updates on their robot at the end of each meeting.

Conflict Resolution:

The team has had a conflict in the use of wallabies since most of ours are broken at this point in time. To allow for fairness each team was given about an hour and a half to work with the only wallaby to test their robot and its effectors. Once we fix our remaining wallabies the teams will be able to use one at all times.