

	HBMS Robotics	Number: 18-0031
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Authors	Qenan Francois	Due: 6/2/2019

*\*Date Formats are **Day, Month, Year***

## Section [I]: Goals & Tasks for Botball 2019

### Sub-section [I-A]: Game Goals & Tasks

This year for 2019 Botball our team has come up with a couple of goals. Goal #1 would be to try and get as many points as possible within 1 minute of starting. We will accomplish this by reviewing our point scoring sheet and figuring out what the most reliable options are, we will also get with our programming department and see what program we will need to write. We want our program for this to be done by 18/2/19. Goal #2 would be to try and include both our Create and Wallaby in this competition. We will accomplish this by also reviewing the point scoring sheet and seeing what jobs each the create and wallaby can do and what they are best at. We will also get with the building department and see what we should add on to the create and wallaby to score the most points possible during the round. Our strategizing for this has been completed as of 4/2/19 and we expect the programming and building for this to be done by 13/3/19. And goal #3 would be to learn and use the camera in this competition. Tasks to complete this would entail getting with the building department and seeing where we can fit the camera on the robots. We will also look at what we can use the camera for in the competition to be efficient. We have received our training for it and we will implement them on our robot by 13/3/19.

## Sub-section [I-B]: Robot Building Goals & Tasks

Our Wallaby design has changed substantially over the past 3 years of Botball and this year we have a few different ideas on how we want our wallaby to be built. This season we want to change out our claw. We want to try and make a three clamp claw design to have better grip over objects that need to be picked up and moved to different locations across the game board, we shall accomplish this by getting together with the building department and figuring out how we can position the servos for this to work. We will also get with the programmers and have them set up variables for the servos for ease of writing the code. Construction of this has already begun and shall be done by 27/2/19. Another goal would be to allocate space for the camera with maximum efficiency (i.e using the least amount of space on the actual chassy.) We will accomplish this by checking with the builders and seeing if there's anything that can be moved or removed from the robot to allocate enough space. This shall be done by 27/2/19. Our last established goal is to make sure everyone in the club unanimously decides on a finalized wallaby design which is to be done by 6/2/19. We will accomplish this by having our building put together 3 different designs on spare chassis that would work with other goals, Then their a survey with X amount of designs, The one with the highest amount of votes will be chosen.

## Sub-section [I-C]: Programming Goals & Tasks

Programming our wallaby has always had some difficulty, whether that be technical or knowledge limits. Our goals will hopefully help us improve our timeline of things and make sure we can accomplish what we need to within our designated amount of time. Goal #1 Would be running tests on the wallaby to make sure its in good working order. Tests would include running the servos to pick up an object and calibrating the light sensor, etc. We want this to be done by 30/2/19. Goal #2 would be completing a rough draft program for the game board, going around, picking up and transporting items to the specified locations. Tasks we could do to complete the above would entail, reading over the point scoring sheet to see what the best approach would be. Goal #3 would be to educate our programming dept. To be cross compatible on both of our robots, being able to at least write basic programs on each of the robots. Tasks to complete this would be educating everyone in the first place to use their non-preferred robot and get it

to do basic movements. Also this would entail educating our programmers on how to understand the code and answering any questions they may have.

### Sub-section [I-D]: Documentation Goals & Tasks

Documentation is always tedious to do but we have come up with an organized way to complete it and be on schedule this year. P1 Documentation Complete, tasks to complete the documentation would be holding a team meeting to set the overall schedule, assign tasks and decide on conflict resolution. Also the plan would entail gathering info from building and programming departments to establish goals and tasks for the season. P2 Documentation Completed **ON-TIME**. Tasks to accomplish the following would be gathering data from building department for assignment. Also gathering data from programming department for assignment. And P3 Documentation also completed on-time. tasks to complete are the following, Set up a survey to see what the robotics club members learned and what experience they gained during the year. And to figure out what our team thought they could have done better with.

### Sub-section [I-E]: Schedule Conflicts

<b><i>Schedule Conflicts</i></b>	<b><i>Date</i></b>
Feb. School Vacation - no meeting	18/2/19 - 22/2/19
Apr. School Vacation - no meeting	15/4/19 - 19/4/19

*\*Also would include the first Wednesday of every month - Feb. 6, Mar. 6, Apr. 3*

## Sub-section [I-F]: Team Organization

### **Team Organization 2019**

#### ***Schedule of Meeting Times:***

Regional Workshop - January 27 and 28

Regional Tournament - April 29

*Each meeting will last 2:30pm - 3:30pm. However, some will stay as late as 4:30pm.*

Schedule for February - Feb. 13, Feb. 27

Schedule for March - Mar. 13, Mar. 20, Mar. 27

Schedule for April - Apl. 10, Apl. 17, Apl. 24

*\*These dates are subject to change*

*\*\*Additional Dates will be added when we near the competition*

#### ***Division of Labor:***

Executive Chair (Student Leader): Qenan Francois\*\*

Advisory President (Adult Leader): Rebecca Audette

Senior Vice President of Programming: Shane Virgo

Junior Vice President of Programming: TBD

Programming Department: Shane Virgo, Qenan Francois, Kaden Golda, Maddox

Hogan, Sophia East\*, Ryan Palmer\*, Alistair Pacyna, Jason Vaillancourt, Ryan Bailey

Senior Vice President of Building: Olivia Faro

Building Department: Olivia Faro, Qenan Francois, Sophia East\*, Ryan Palmer\*, Dagen Mazschausch, Emma Lyden.

Documentation Department: Qenan Francois

\*Will work in both departments

\*\*Executive Chair will participate and oversee all departments. He will also do documentation.

***Conflict Resolution:***

Disagreements will be handled in the following fashions:

1. Members of that specific department will lead a vote or discussion to resolve the problem. Everybody will be given a valid opinion, and no one will be left out.
2. If a resolution cannot be reached, the department Senior Vice President will consult the Executive Chair and the Advisory President. Together, they will reach a resolution.
3. If more than 50% of that department disagrees with the decision, than a vote between all departments will be ordered. This vote will be final.

