

## **Period One - Project Plan**

### **Rockville -0333**

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

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

- a. Review game goals, tasks, game movies, and documentation by 2/12/19
  - i. Upload KIPR resources to the google classroom for open access by 1/15/19
  - ii. Schedule a presentation reviewing the game to members by 1/22/19
  - iii. Collect brainstormed game plans from each building/programming group by 2/5/19
- b. Review the game rules and parts list by 2/14/19
  - i. Make sure all robot parts are legal by 1/24/19
  - ii. Ensure every team member has a basic understanding of the rules by 1/31/19
  - iii. Document changes from last year's rules by 2/12/19
- c. Construct the game board by 1/31/19
  - i. Disassemble last year's board and make a list of parts that can be reused by 1/10/19
  - ii. Create a list of necessary materials for sponsor to purchase by 1/17/19
  - iii. Properly construct the game board with correct dimensions by 1/29/19

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

- a. Build a prototype LEGO robot by 1/24/19
  - i. Split the builders into two groups; one for the Lego-bot and another for the Roomba by 1/12/19
  - ii. Appoint a leader for the Lego-bot and have them review the game board and develop game plans with their group by 1/22/19
  - iii. Decide on two possible designs and construct a prototype build by 1/24/19
- b. Build a prototype Roomba by 1/24/19
  - i. Split the builders into two groups; one for the LEGO bot and the other for Roomba by 1/22/19
  - ii. Appoint a leader for the Roomba and have them review the game board and develop game plans with their group by 1/22/19
  - iii. Decide two possible designs and construct a prototype build by 1/24/19
- c. Seek improvement on prototypes and finalize designs by 1/31/19

- i. After the construction of prototype builds, gather all the builders and have them criticisms and critiques by 1/29/19
- ii. After receiving critique and suggestions, separate the builders into their respective groups and allow them to work on improving their designs by 1/29
- iii. Have the building groups meet up with their respective programming counterparts in order to discuss viability and plausibility of designs by 1/31/19

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

- a. Teach new recruits the basics and fundamentals of wallaby and Python coding by 1/17/19
  - i. Explain the structure and function of programs from last year by 1/8/19
  - ii. Using last year's bots and board, allow programmers to try and complete challenges by 1/10/19
- b. Develop a plausible game plan by programmers by 1/31/19
  - i. Split programmers between the legobot and the roomba by 1/24/19
  - ii. Have programmers meet with their builder counterparts and develop a game plan by 1/28/19
- c. Develop flowcharts and a working program by 2/14/19
  - i. Choose a challenge from the gain board and brainstorm a pathway by 1/31/19
  - ii. Develop a code based on the brainstormed flowchart by 2/14/19

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

- a. Complete the First Period Documentation by 1/31/19
  - i. Split club into building, programming and documentation groups by 1/10/19
  - ii. Establish goals and tasks for each group by 1/22/19
- b. Complete the Second Period Documentation by 2/27/19
  - i. Appoint two members from the building group to meet up with and discuss their designs by 2/12/19
  - ii. Appoint two members from the programming group to meet up with and discuss their codes by 2/12/19
- c. Complete the Third Period Documentation by 4/3/19
  - i. Reserve a meeting day in order to discuss everyone's experiences throughout the year and learn what people gained through botball by 3/26/19

- ii. Ensure that the coders have kept up with the Github process and obtain necessary materials for submission by 3/22/19
- iii. Reserve another meeting day for all members to answer the survey provided by Kipr when it releases by 3/28/19

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

- a. Its Academic tryouts 1/24/19
- b. Theater everyday until 4/12/19
- c. Early Release; End of Quarter Planning 4/3/19

## **Team Organization**

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

January 19/20<sup>th</sup>- Regional Workshop

- Regional Competition April 6<sup>th</sup>

*All meetings go from 2:30 pm to 4:30 pm*

January 22<sup>nd</sup>, 24<sup>th</sup>, 29<sup>th</sup>, 31<sup>st</sup>

February 5<sup>th</sup>, 7<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup>, 19<sup>th</sup>, 21<sup>st</sup>, 26<sup>th</sup>, 28<sup>th</sup>

March 5<sup>th</sup>, 7<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup>, 19<sup>th</sup>, 21<sup>st</sup>, 26<sup>th</sup>, 28<sup>th</sup>

April 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>

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

Adult Team Leader: David Baker

Student Leader: Mortimer

Board Builders: Brian, Guillermo, Jessie, Lalaine

LEGO Bot Builders: Mortimer, Brian, Jessie, James, and Trent

Roomba Bot Builders: Lalaine, Taisia, Jedidah, and Tiffany

LEGO Bot Programmers: Jaxon, Lucas, James, and Tristan

Roomba Programmers: Jaxon, Isaac, Jawad, Emmet, and Oliver

Documentation: Axel, Taisia, James

### ***Conflict Resolution***

If a conflict were to arise, our team will solve it in the way we handled it last year:

- First a mediator will step in between the conflict in order to calm down the people involved.
- After the conflict is stopped, the root of the problem will be determined by discussing with each side.

- When the cause of the problem is revealed, the two people who were uninvolved will ask each side what they want.
- Once this information is obtained, there would be a peaceful discussion about the topic with everyone gathered and 3 people to overlook the discussions. The first being the original mediator who stopped the conflict, and the other two will be those who were uninvolved in the conflict.
- The mediator of conflicts will usually be the leaders of each respective group.
- In the case that the leader is involved in the conflict themselves or is absent, then the role of the mediator would rest on the other leaders or a senior member in the club.