**Raspberry Pi Final Project Title**

**Project Team Members**

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**Project Summary**

We came up with an idea of an Ultrasonic Jump Rope. Essentially, we want to set an Ultrasonic Sensor to throw out pulses at an interval designated from the user's difficulty settings (with the hardest difficulty throwing out pulses at a faster rate) to create an invisible jump rope. Once the user breaks the ultrasonic line, the sensor will detect it and end the process.

**Goals and Objectives**

Our Ultrasonic Jump Rope combines technology with exercise into one. Kids nowadays are addicted to technology, so it is hard to make them stop using it. Our though was, why not combine the two. We will have a screen for the technology aspect and they can jump rope to burn calorie as their exercise using our ultrasonic jump rope.

**GPIO**

The GPIO is used to set up the ultrasonic sensor.

**GUI**

The GUI will display the difficulty selection and when you mess up, the color of the rope you want, and where the rope is on the screen, so you know when to jump.

**Github Repository**

This project's Github repository is located at: <https://github.com/rmd020/Final-Project.git >

**Gantt Chart**

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| **Project Title** | **Week 1** | | | | | **Week 2** | | | | | **Week 3** | | | | | **Week 4** | | | | | | **Week 5** | | | | | **Week 6** | | | | |
| **Mar 28-Apr 1** | | | | | **Apr 4-8** | | | | | **Apr 11-15** | | | | | **Apr 18-22** | | | | | | **Apr 25-Apr 29** | | | | | **May 1-5** | | | | |
| **Order Materials** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **-Outline the code** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **-Make the code** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **Implement the code** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **Find Variables** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **-Set up the project** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **Find Bugs and External Variables** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **Run the project to standards** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **In-class Project Days** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| **Final project presentation** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |