**University of Pittsburgh**

**Department of Electrical and Computer Engineering**

**ECE 1896: Senior Design Project – Summer 2022**

**Milestone Checkoff Form**

**Project Title**

Rotisplay

**Overall team goals to be accomplished during the evaluation period**

Demonstrate viability of each module

Demonstrate functionality of currently available hardware

Selection of missing components

**Team Member #1**

Nathan VanDemark

**Goals for Team Member #1**

Control Leds via teensy microcontroller

Research Bluetooth controllers and select potential hardware

**Deliverables / Demonstrations that will show accomplishment of above goals**

Display of Leds showing non-trivial color information

Selection of a candidate Bluetooth controller and library for its usage

**What skill or knowledge will Team Member #1 need to learn to complete the project that they did not learn through coursework? We will ask you during Checkoff #2 to show us some results of this learning.**

Necessary requirements for a Bluetooth chip to communicate with smart phones.

Communication interface between microcontroller and Bluetooth chip.

Understanding of how a microcontroller utilizes such a device within code.

**Team Member #2**

Brandon Ferruzza

**Goals for Team Member #2**

Determine RPM using a Hall Effect sensor and a magnet

Begin designing “enclosure” for device

**Deliverables / Demonstrations that will show accomplishment of above goals**

* Spinning a magnet around the sensor to display RPM
* Show preliminary design for device

**What skill or knowledge will Team Member #2 need to learn to complete the project that they did not learn through coursework? We will ask you during Checkoff #2 to show us some results of this learning.**

* Understanding and implementing hall effect sensors
* Programming in Arduino
* 3D Designing in CAD
* Developing the necessary circuits and tests to verify RPM of a spinning magnet

**Team Member #3**

[Insert Name Here]

**Goals for Team Member #3**

* Objective #1
* Objective #2
* etc..

**Deliverables / Demonstrations that will show accomplishment of above goals**

* Item #1
* Item #2
* etc..

**What skill or knowledge will Team Member #3 need to learn to complete the project that they did not learn through coursework? We will ask you during Checkoff #2 to show us some results of this learning.**

**Team Member #4**

[Insert Name Here]

**Goals for Team Member #4**

* Objective #1
* Objective #2
* etc..

**Deliverables / Demonstrations that will show accomplishment of above goals**

* Item #1
* Item #2
* etc..

**What skill or knowledge will Team Member #4 need to learn to complete the project that they did not learn through coursework? We will ask you during Checkoff #2 to show us some results of this learning.**