**CENG 319 Proposal**

1. **General information**

1. Project Name: Mini Explorer

2. Team members: Duc Nguyen, Jordan Pulido

3. Summary: This app is directly connected to the RC car that can detect weather changes. Not only the app allows the users to receive real-time data but also to control the car.

4. Background: Mini Explorer is an RC Car, made of Raspberry Pi and other necessary sensors/motors. The goal is to create and control a device that can measure environment data (temperature, humidity, …) from afar.

1. **Technical information**
2. How to implement:

- Can either turn Raspberry Pi into a Wifi point, or use Bluetooth to connect the RC car to the app. Configurations on Raspberry Pi must be done in order to achieve this.

- Firebase is used in order to store users’ accounts and environment readings.

- Data will be collected by the sensors, temporarily stored in the Raspberry Pi

Register

Loading Screen

About us

Login Screen

Live support

Main screen: Showing options

Readings screen: Show real-time readings

Device screen: Show the ME’s status and buttons to control

Settings: To change some characteristic of the app.

*The app’s screens in hierarchy level*

2. Time estimation: 2 months. If there is any problem, we will prioritize which functions should be definitely included and which ones are not necessary at the moment.

3. Originality:

- There’s little to no apps like this on the app store, due to the incompatibility between different hardwares that made the RC car. However, there are many projects that are similar.

- The difference is our app collects environment data, so it won’t be just a simple remote control app.

4. Test cases:

- Having received weather/environment data from the internet, and stored it to the database

- Show real-time weather/environment data

1. **Conclusion**

Mini Explorer is a very interactive app to both the users and the actual product. Thanks to this app, the phone can now be used as a remote controller and a thermometer. While there are certain challenges, it can have great uses for weather reporters, geologists, and travelers.