Salim Kanji

Vaughan, ON L6A 0L5 | (647)-562-0905 | salimkanji03@gmail.com
Biomedical-Mechatronics Engineering Student

Western Biomedical Engineering Club   Position: AI and Business Design Lead

Intra-Oral Camera

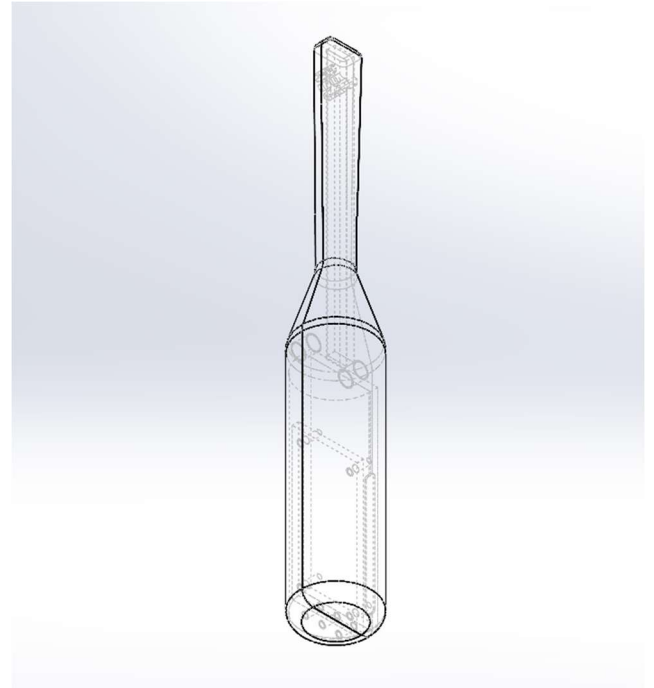*Figure 1- IOC Above View: Raspberry Pi 0W*

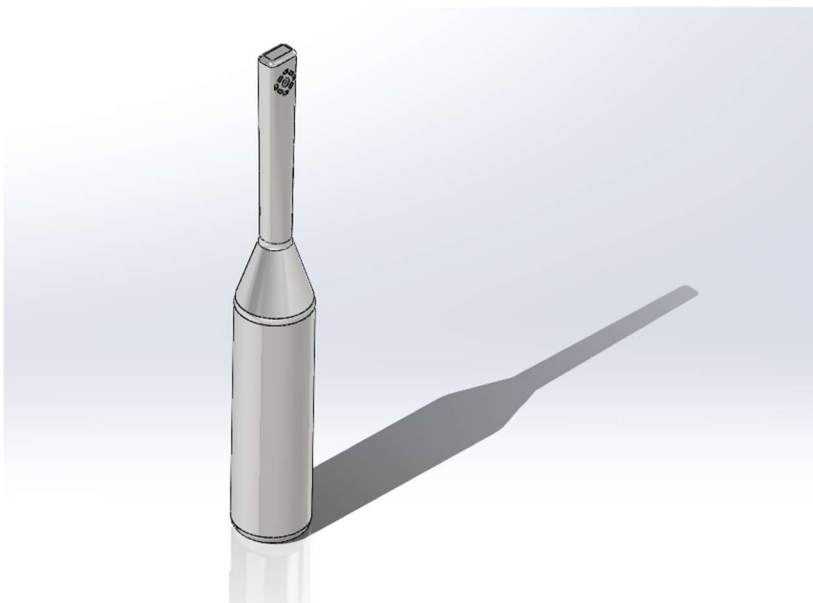*Figure 2- IOC Below View: Transparent Casing SOLIDWORKS*

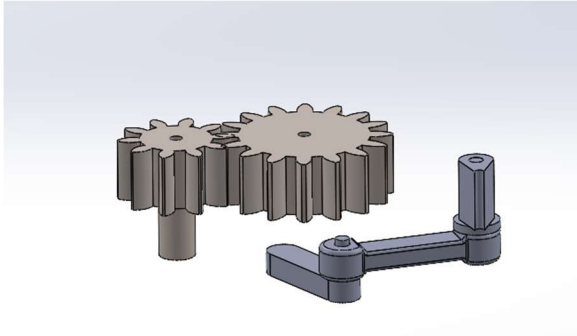*Figure 3- IOC Isometric View: Solid Casing SOLIDWORKS*

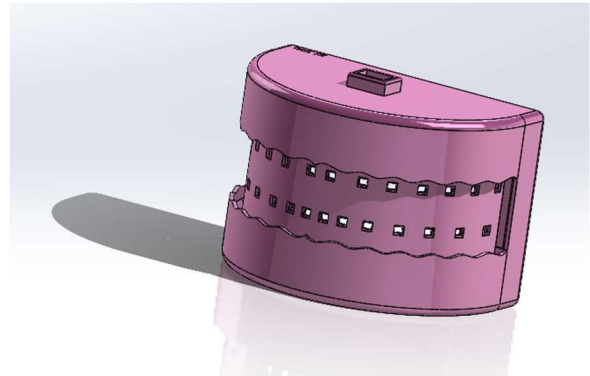*Figure 4- Gear and Linkage Demonstration SOLIDWORKS*

Figure 5- Charging base Isometric View SOLIDWORKS

```python
 92 ∨  def collectData(section, array, duration):
 93         print(f"Recording data for {optionsArray[section]}...")
 94         sleep(0.5)
 95         startTime = time() #current time in seconds since epoch
 96         while time() - startTime < duration:
 97             data = readSerial()
 98             #print(data)
 99             array.append(data)
100         print("Data collection complete.")
101         allData.append(array)
102         return array
103
104      if __name__ == "__main__":
105
106         while running:
107             data = readSerial()
108             #print(data)
109             print(optionsText)
110             sectionInput = input("Which section are you recording for? Press Q to exit: ")
111
112             if sectionInput == "1":
113                 #print(f"Recording data for {optionsArray[int(sectionInput)]}...\n")
114                 # sleep(1) #1 second pause
115                 section = int(sectionInput)-1
116                 collectData(section, Max_R_Buc, collectionDuration)
117                 #print(Max_R_Buc)
118
119             elif sectionInput == "2":
120                 # sleep(1) #1 second pause
121                 section = int(sectionInput)-1
122                 collectData(section, Man_R_Buc, collectionDuration)
```

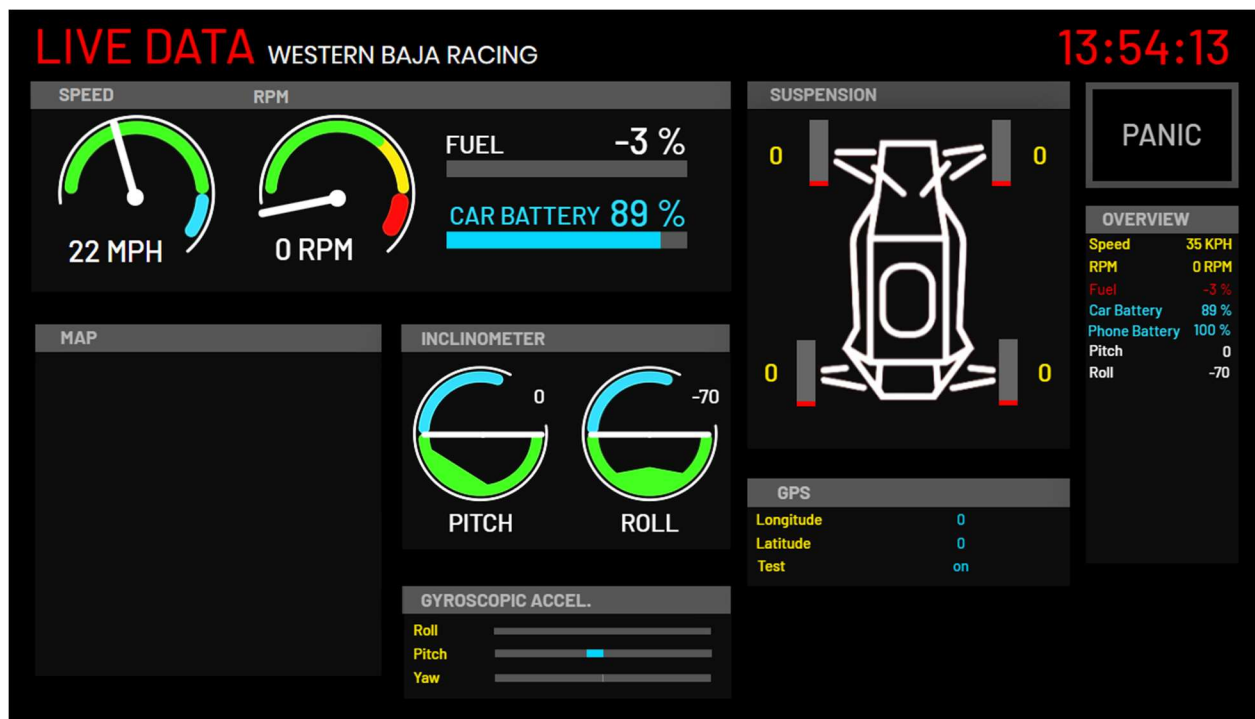*Figure 6- GitHub Arduino Cluster Position Data Collection*

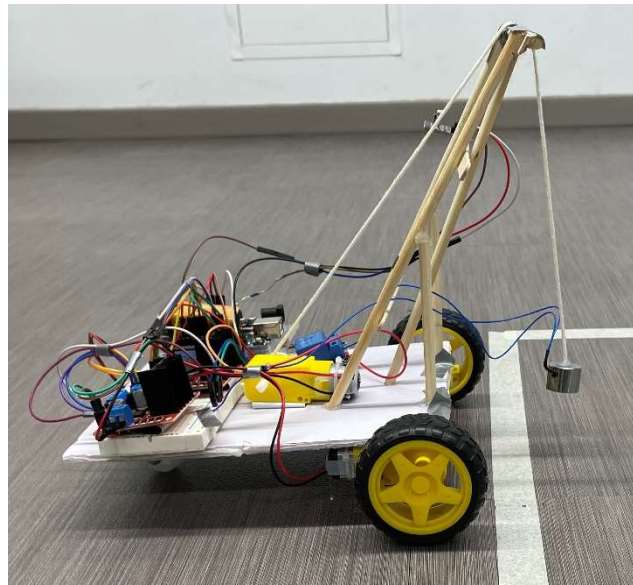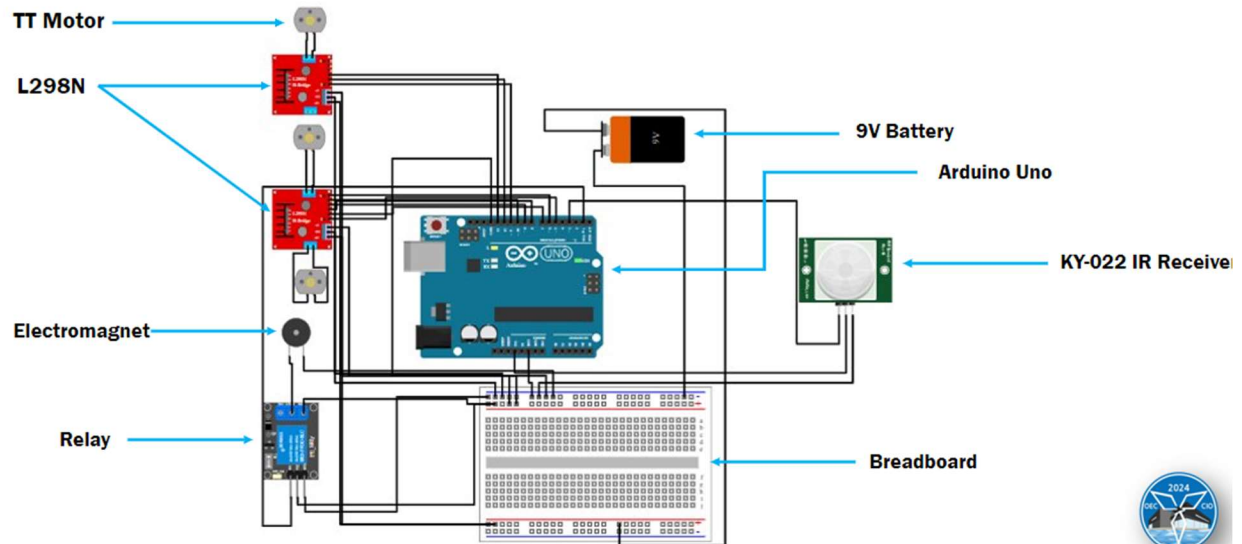*Figure 7- Live Vehicle Data Display on GUI*

Figure 8- UWO Baja SAE Vehicle

Figure 9- Final IR-Controlled Electromagnet Vehicle Design

Figure 10- Electrical Design of IR-Controlled Electromagnet Vehicle