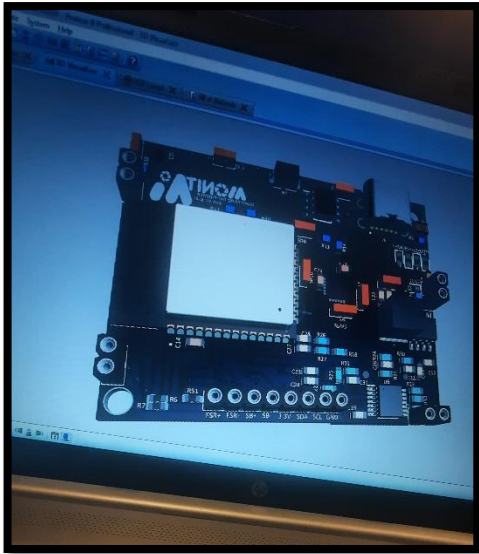
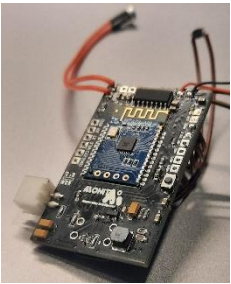
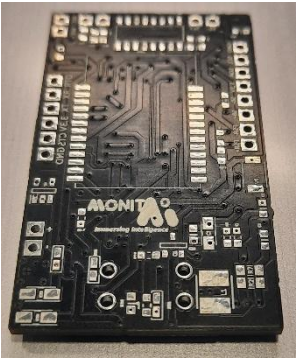


**Project  
Smart Helmet HW**



**Designed Smart Helmet HW (2layer) and  
SW**



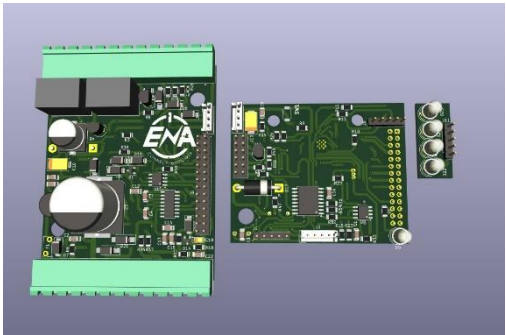
**Project  
Radio Frequency Based AC units Controlling**



**Designed HW 2layer PCB and SW using IDE**



**Project  
IOT GATEWAY**



- **Micro-Controllers**

I have used ESP32 and STM32 microcontroller in most of the projects with my previous companies. Programmed in Arduino IDE using C. Also integrated RTC for real time data and logging events according to the real time. Moreover used MPU dedicated IC for sensing any accident event with the rider. Also I have used I2C communication protocols in-order to sense the data from the LIDAR.

- **Software for PCB Design**

Designed PCB using software Proteus and KICAD made custom PCB boards. Also for procurement of PCB and BOM of Components like different IC's, capacitors, resistors, type C jacks used different vendors from China for sourcing.

- **Firmware Development**

I developed Firmware using different IDE's like STM32 Cube IDE and Arduino IDE. Mostly used language C and python.