

SACHET(सचेत) Helmet

Prepared By :

1. Gaurav Sonawane
2. Shreyas Shah
3. Ritesh Choudhary
4. Rishab Bhat

From : **INDIA**

Institute : **AISSMS IOIT PUNE MAHARASHTRA**

Meaning Of 'SACHET'(सचेत) is to be careful or conscious, so as to be safe from harm or danger.

S - Security against Theft.

A - Air Filter for Healthcare.

C - Compatible for All Weather.

H - High Clarity and Vision.

E - Emergency Support.

T - Temperature and Fogg Control.

Objective:

To maintain a comfort of a rider in all weather conditions as well as safety. To emphasize people to wear helmet even for small distances.

Components

That we have used!

- **Alcohol Sensor**
 - **Rain sensor**
 - **Peltier Module**
 - **Vibration sensor**
 - **Bluetooth connectivity**
 - **GSM and GPS**
 - **BLDC Exhaust Fan**
 - **Mini Air Compressor**
-

Problems

We Have Addressed.



- Decreased visibility of rider due to water droplets on shield.
 - Polluted and dusty environment.
 - Not getting immediate help in case of accident.
 - Problem of fogg during winter.
 - Dizziness while driving in night.
 - Threat of Bike Theft.
 - Use of phone while driving.
 - Issue of drunk and drive.
-

Our Solutions

Sachet Helmet

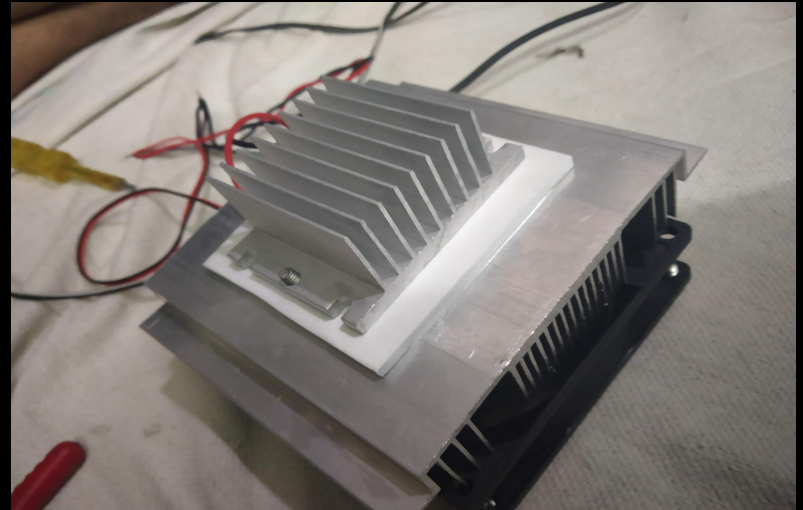
For Clear Vision During Rainy Season

- A **Detachable wiper** is mounted on Helmet, which starts automatically after sensing raindrops and keeps the glass clean



For Controlling Warmness and Fogg

- We have used a **peltier module** in order to increase comfortness with hot/cold air flowing through helmet.



To avoid Drink and Drive Case

- Alcohol level gets automatically tested using **alcohol sensor**, if the level exceeds the given limit then the vehicle will not get started.



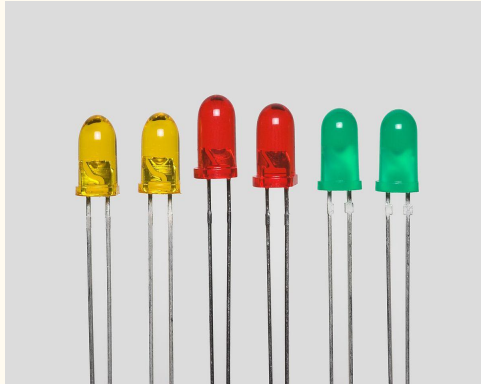
Immediate help Durnig Accident

- In case of accident, a message is send to emergency contact number with the **GPS location**.



To avoid Dizziness

- A night assistance flashes **bright blue near eyes** after certain periodic time to avoid dizziness.



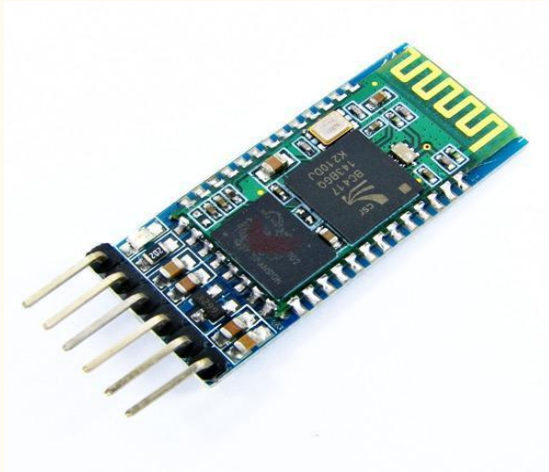
Polluted and Dusty Environment

- To circulate fresh air in the Helmet, an **Air Filter** is provided which avoid dust and pollution to enter into Helmet.



Use of phone

- An **internal bluetooth speakers** are provided which can be useful during navigation and can attend emergency calls **without any external noise cancellation.**



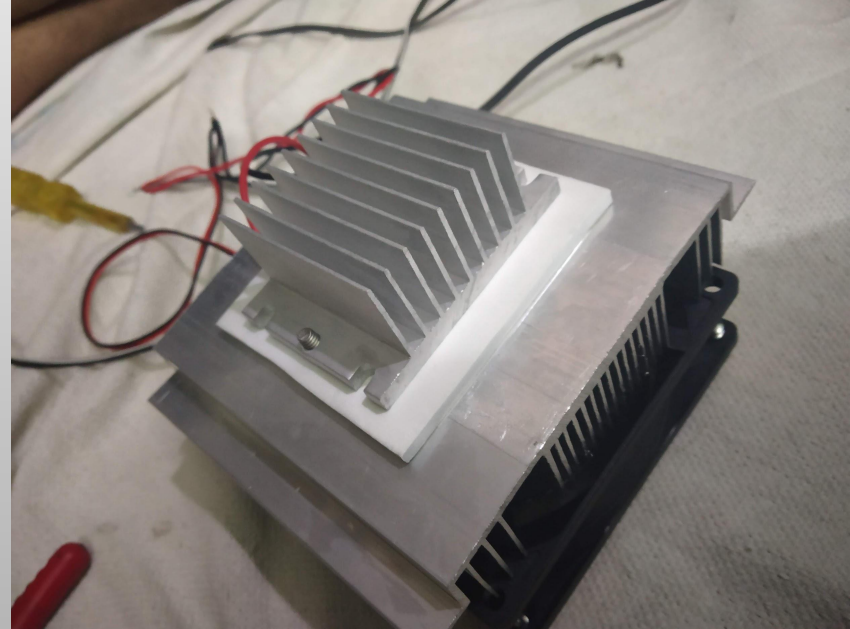
Threat Of Bike Theft

- If the bike is stolen then rider will have the option to **shut down the engine** with his smartphone.

Peltier Module

The cooling of one junction and the heating of the other when electric current is maintained in a circuit of material consisting of two dissimilar conductors the effect is even stronger in circuits containing dissimilar Semiconductors.

In a circuit consisting of a battery joined by two pieces of copper wire to a length of bismuth wire, a temperature rise occurs at the junction where the current passes from copper to bismuth, and a temperature drop occurs at the junction where the current passes from bismuth to copper.



Thank You!

