



FireHUD

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America's wildland firefighters are increasingly spread thin, as fire seasons become longer and more intense. We think it is time to help them back by giving them an edge on their everyday duty. Our goal is to provide a product to help make fireman's life easier when fighting wildfires by providing them with basic information that they need on a Heads-Up Display so that we can minimize the amount of death.



Product Features

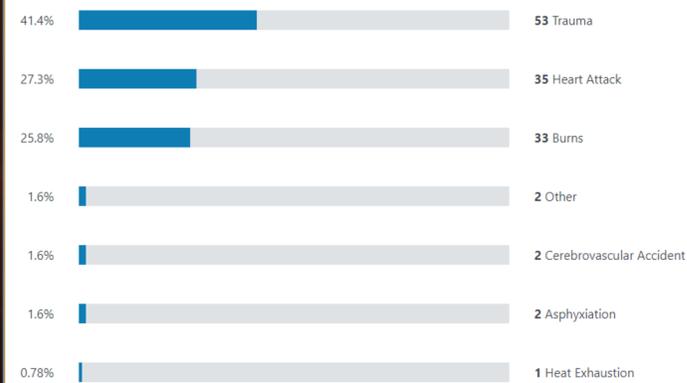
- **Temperature sensor**
 - Our Helmet can detect temperature up to 125°C
 - Fireman DO NOT wear 100% protective gear when fighting fires. 25.8% of nature fatality is due to burns. The temperature sensor is to warn fireman of the surrounding heat to minimize burn
- **Carbon Monoxide (CO) Sensor**
 - Our CO sensor can detect up to 2000ppm of CO in air. Dosimeters are normally used in breathing zones to help measure firefighters CO intake levels. Our helmet will allow this data to be collect and also warn when CO PPM levels are too high. High exposure in short term can lead to: HEADACHES, DIZZINESS, VOMITING/NAUSEA, DISORIENTATION Which affect fireman effectiveness and overall health.
- **GPS**
 - Help locate entrapped firefighters during emergencies
- **Heart Rate Monitor**
 - Help measure heart rate to see if your heart rate and blood pressure suddenly drops (faint), or spike high (CO and smoke intake that would increase heart rate drastically).
- **LCD Display Module**
 - Display "WARNING" when temperature, CO or Heart Rate levels are at unhealthy levels, given them the information to make risk assessment decision.

Future Improvements

- Incorporate drones to communicate between helmets and read live wind direction to feed data to fireman.
- HUD upgrades: Transparent HUD to reduce obstruction, HUD that can sustain a higher operating temperature.

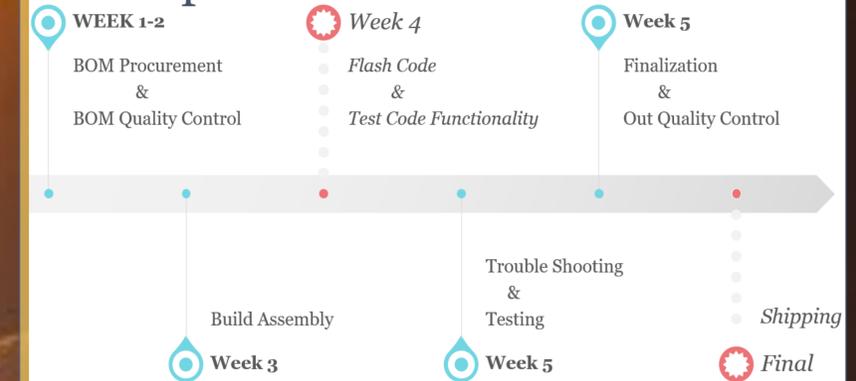
Wildland Fire Operation Deaths

Nature of fatal injury



- Our FireHUD is to help mitigate some of the fatalities (NWCG Report on Wildland Firefighter Fatalities in US)

Development Timeline



Product Team

