

FAMU-FSU
Engineering

CIA – Wearable Fashion Technology

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Objective

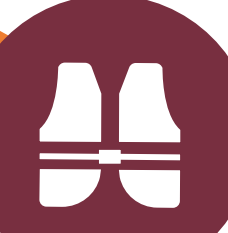
The objective of this project is to develop an innovative wearable device for the CIA, featuring an integrated gas detector, and additional technology to aid in building collapse search and rescue missions.

Motivation



The device was developed to assist in scenarios following numerous earthquakes and natural disasters, particularly in Turkey in 2023, causing numerous buildings to collapse.

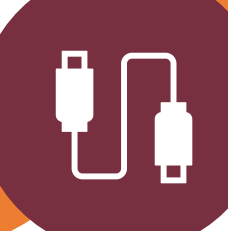
Assumptions



Device will be worn over search and rescue gear

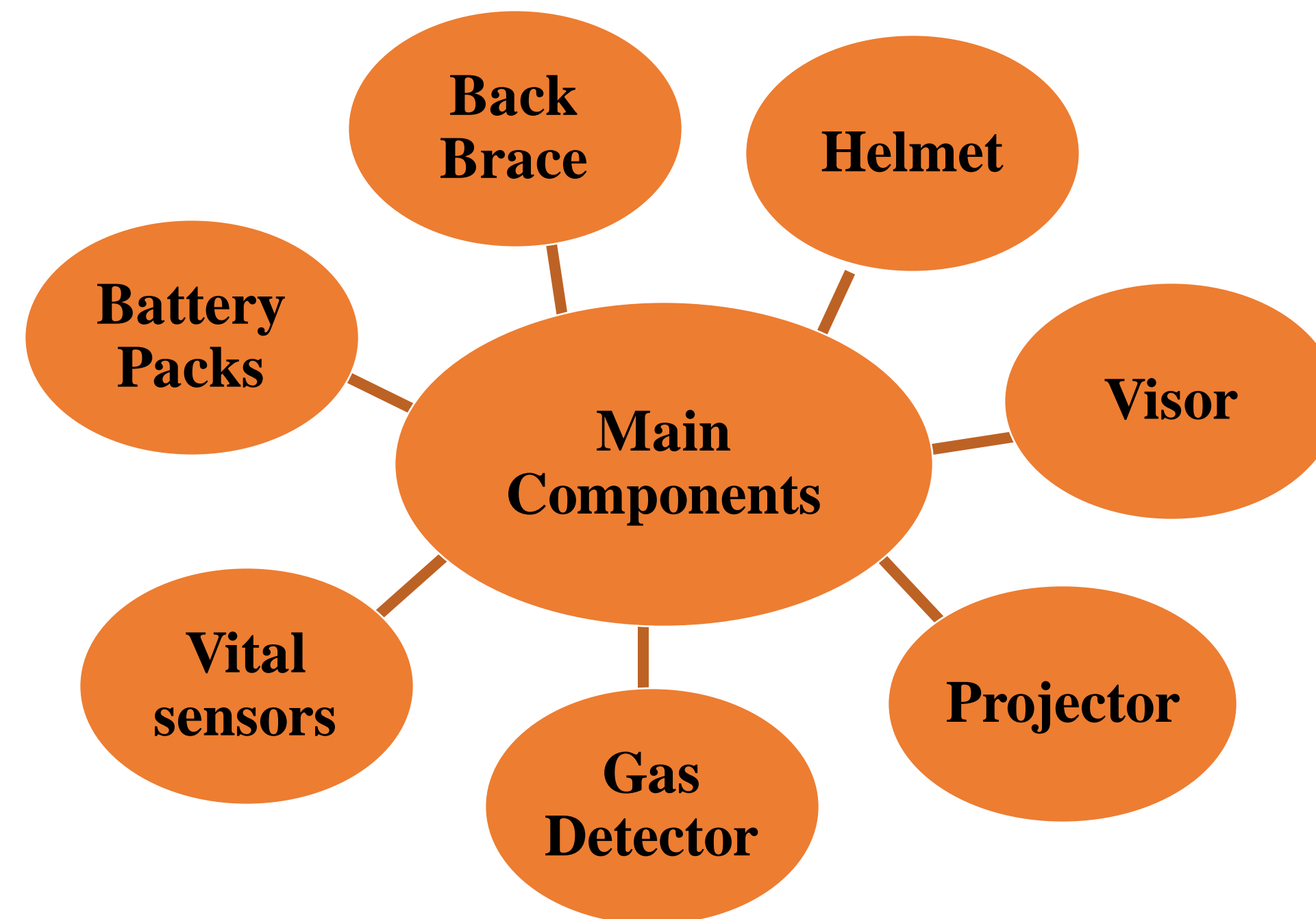


All operatives will wear the same device



Team 506 will Calibrate their device accordingly

Current State of Work



Preliminary Design



How it Works

1



Team begins mission all connected and in same gear.

2



Device will continuously monitor gas in the area or irregular vitals

3



Device will notify the affected member if any gas or irregular vitals are detected

4



Affected member's device will then notify other team members

Key Targets

Improve operative safety and communication



Successfully collaborate to implement a gas sensor into the wearable



Develop a reliable and fully functional prototype



Challenges



Systems Integration



Battery Life Optimization



Interactivity & Connectivity



Resource Affordability

Future Work

- Material Acquisition
- CIA CONOPS
- Coding Updates
- Testing and validation
- Prepare for Senior Design day

