

Project Description

Problem Statement: Firefighters need resources to better detect wildfires for safety and efficiency. Argus III will solve this problem by acting as a deployable device that can sense and communicate live data about smoke, temperature, and wildfire progression back to the user. The Argus team is working with NSIN and the Navy for funding and resources for producing the final product.

Requirements:

- Survive a drop from at least 100 ft
- Must utilize additive manufacturing for ease of production
- Must incorporate a student designed PCB
- Must survive the San Diego environment for 3-5 days while powered on
- Must transmit fire data continuously after impact

Team Members



Jaime Cervantes

Blake Elliott

Anthony Duyan



Andrew Mapes

Carson Vogel

Noah Hinckley



Diana Mudeer

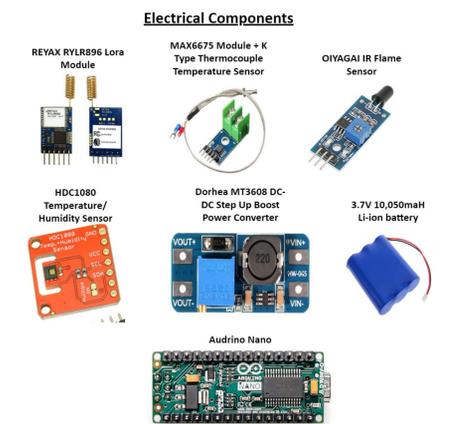
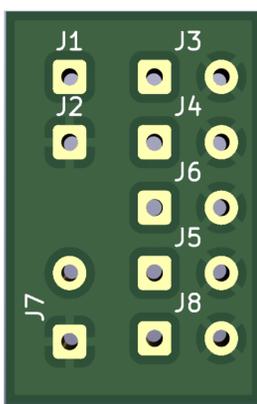
Joseph Solis

Philip Phan



Electronics and GUI

Electrical Components


Manufacturing

- Components/wires soldered together for assembly
- 3D Printing – FDM and SLA techniques using Carbon Fiber Infused Filament and Flexible 80A
- PCB Etching



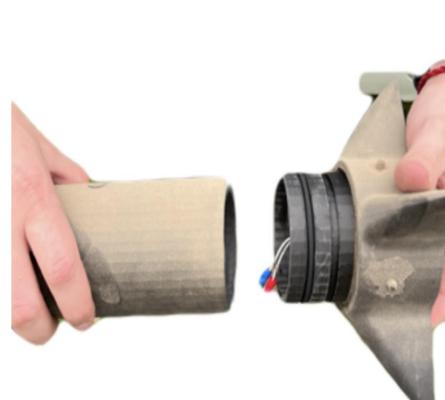
Testing



Waterproof Test



Flame Detection Test



Dustproof Test



Transmission Distance Test

Acknowledgements

U.S. Navy:
Kevin Demesa and Christopher Curran

NSIN:
Luis Martinez, Cassandra Heyman-Schrum, Larsa Summerville

San Diego State University:
Dr. Shaffar, Professor Dorr, and Sonya Loredo