

Objectives

Coordinate was designed to **help search and rescue (SAR) teams** coordinate resources

Designed to **increase the efficiency** of early search coverage, helping with over 50,000+ SAR missions that happen in the US each year



Example a SAR team

Using a combination of **GPS** and **radio** it allows SAR teams coordinate across geographies

Approach

As one of **18** undergraduates we worked together on this project in three main teams: **mechanical**, **software**, and **electrical**

The mechanical team's focus was to develop a robust mechanical design for use outdoors. It involved an **IP67 seal**, **large pushbuttons**, and a simple **UX** for easy use in the field



Coordinate – use in the field



2.009 Yellow Team – Fall 2017

Proof of Concept

As the mechanical lead I focused on the **usability** and **design** for search and rescue teams

Our device needed to be **rugged**, **simple to use**, and **work with the gear used by SAR teams**



Early drawing, Credit: L Gulland



Table of design iterations and parts

Results

The project concluded with final products we were able to demo to SAR members. Final products photos are below:



Carrying Case



Entire system



"Scout" unit