1. **Problem Statement:** To develop a system that allows triage personnel to identify firefighters arriving at a triage center that will allow rapid access to critical medical information.
2. **Phenomenology:**

* RFID technology
* Existing medical databases

1. **Solution Statement:** Equip firefighters with encrypted radio frequency (RFID) tags, this will enable triage personnel to retrieve identification information in order to access medical information.
2. **Scope:**
3. **Technical Constraints:**

* Shall function at a temperature greater than 200 degrees fahrenheit
* RFID device shall function after being submerged in water at a depth greater than 1 meters for minimum of 30 minutes
* Operational range of scanner shall be minimum of 0 meters and maximum of 1 meters
* RFID device shall be a passive device
* RFID device shall be maximum of 10 centimeters long, 10 centimeters wide, and 3 centimeters thick
* Medical information database shall include name, allergies, blood type, identification, religious beliefs, emergency contact name, emergency contact phone, heart conditions, relevant medical information
* RFID device shall operate at ??? frequency
* RFID device shall store a minimum of 18 bits of information
* The records database shall hold more than 1000 personnel entries

1. **Non-technical Constraints:**

* Shall conform to the Health Insurance Portability and Accountability Act (HIPAA) privacy constraints
* Shall conform to all FCC regulations for RFID devices
* Final system implementation cost shall cost less than ???? USD

1. **Member Roles:**

* Troy Caplinger- Supreme master and overlord, drinker of the coffee
* Vincent Haenni-Coffee maker
* Robert Lang-
* Anthony Inman-Other stuff
* Jon Carpenter-Programming

**8) Sources**

1. Temperature max for fire fighter clothing <http://www.firerescue1.com/fire-products/Personal-protective-equipment-ppe/articles/960672-Thermal-exposures-and-assessing-heat-damage-to-protective-clothing/>
2. Ingress Protection rating

<http://www.engineeringtoolbox.com/ip-ingress-protection-d_452.html>

1. <http://www.fireengineering.com/articles/print/volume-151/issue-8/features/thermal-performance-and-limitations-of-bunker-gear.html>

links to RFID shop

http://www.atlasrfidstore.com/xtreme-rfid-rivet-jr-tag-pack-of-10/