



# Battlefield Augmented Reality

Off-The-Grid Hackathon  
Individual Pitch



# *Who Is Our Team & What Are Our Skills?*

- Passion for a solution and hunger to move forward with our ideas!
- UCSD / SDSU - university education
- Multidisciplinary Skills (many angles of approach)
  - Computer Science
  - Electrical Engineering
  - Bioengineering



**SAN DIEGO STATE  
UNIVERSITY**

**UC San Diego**

**JACOBS SCHOOL OF ENGINEERING**  
Bioengineering



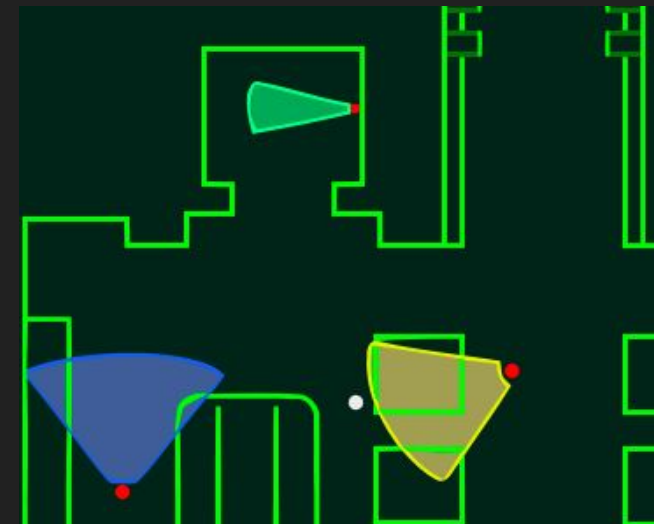
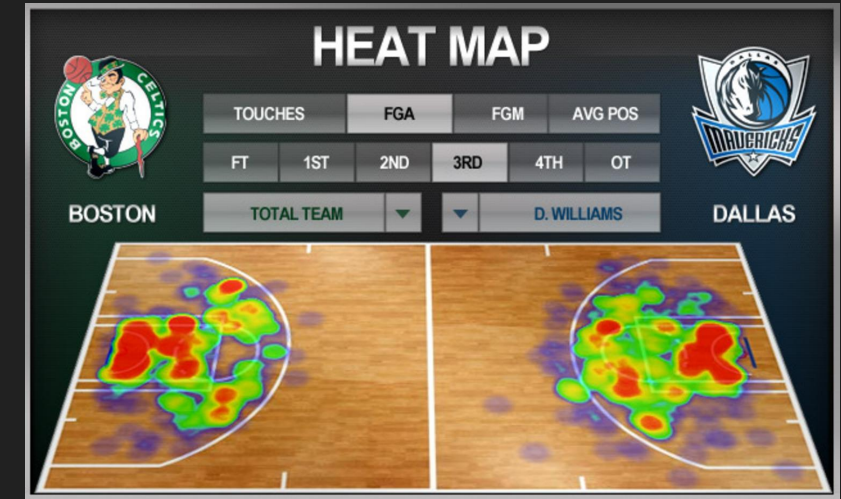
# **Problem Statement**

How can US Army Special Operations Forces (SOF) effectively optimize limited resources such as battery power, large data sets and training time to have intel on the nature of selected targets based on information obtained from a video camera via machine learning algorithms.



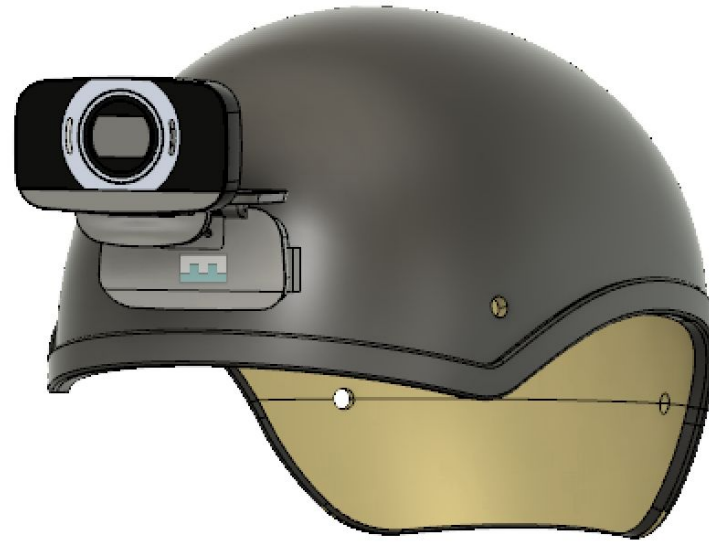
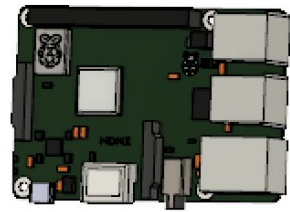
# Our Project

- **Improving Commander Field Of View Using Field Soldiers**
  - Constraints exist relating to individual POV operations.
  - **Minimize battery usage** by sending video feedback to central command.
  - Understand the field of view of the squadron at **any point in time** using machine learning.





# *Created Solutions*



Helmet with  
mounted Camera.



# *Context And Credit For Solutions*

- Discussions With Mentors
  - Philip Riglick - Ideation process, context of the battlefield, SF experiences
  - Nick Hannan - Electromagnetics spectrum manager
  - Mo Elalem - Chemical Engineer for US Army CCDC Armaments Center