Project Overview

Sponsor: Phil Benham

Problem Statement: Benham Aviation Services is looking for an automatic inflatable barrier that can be quickly deployed and retracted across a runway by one person in order to prevent unauthorized aircraft from landing.

Needs:
- Exhibit appearance of a barrier
- Be self retracting
- Withstand desert environment
- Be solar powered
- Be harmless to an aircraft
- Operable by a single person

Final Design Process

Initial Design Sketch

Preliminary Full System Prototype

Final Assembled Device

Side View

Front View

Final Device Assembly and Components

Team Members

Mechanical Engineering Team

Electrical and Computer Engineering Team

Acknowledgements

We would like to thank the following individuals for their support and contributions in the development of our RDRCS:

Benham Aviation Services: Mr. Phil Benham
San Diego State University: Dr. Scott Shaffar, Professor Barry Dorr, Dr. Chris Mi, Mr. Michael Lester, Ms. Allyson Korba

Spring 2022