Ellsworth Air Force Base in South Dakota outsourced a project for Drone Force One to design and manufacture. The product will detect and identify multi-rotor UAVs that enter a specified area. To achieve this, we employed our knowledge and research to develop a unit which will detect and identify a nearby UAV and alert a computer interface of its presence.

**Project Overview**

**Main Components**
- 10 Watt Solar Panel
- Teensy 3.6 with Audio Shield
- IP67 Electronics Box
- 3D Printed Microphone Fairing

**Prototype Development**
- Microphone Fairing
- Drone Detection Software

**Manufacturing Approach**
- Sheet Metal Construction
- Water-Jet & Welding
- Powder Coat Finish

**Project Requirements/Specs**
- Withstand South Dakota Weather
- Tamper Resistance
- Identify Presence of a Multi-Rotor Drone

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**System Level Diagram**

**Prototype Development**
- Microphone Fairing
- Drone Detection Software

**Detection GUI**

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