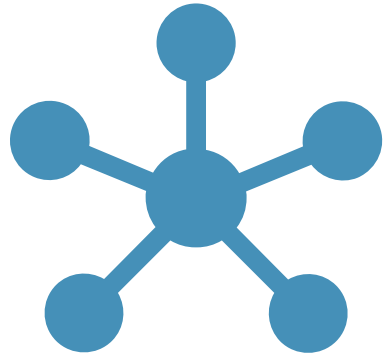


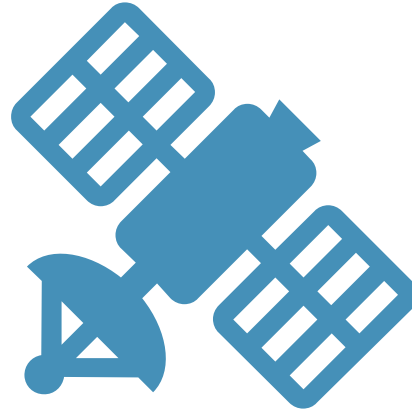


PREDATOR DETERRENT SYSTEM

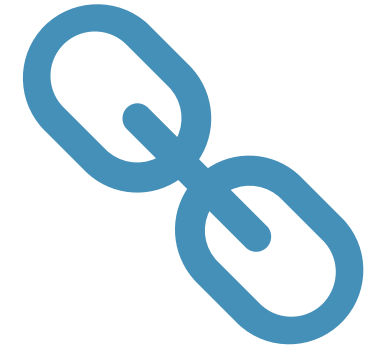
GROUP 17



Sensing



Deterrent



Notification

KEEPING PREDATORS AWAY FROM THE PENGUIN COLONY FENCE

SENSING SUBSYSTEM

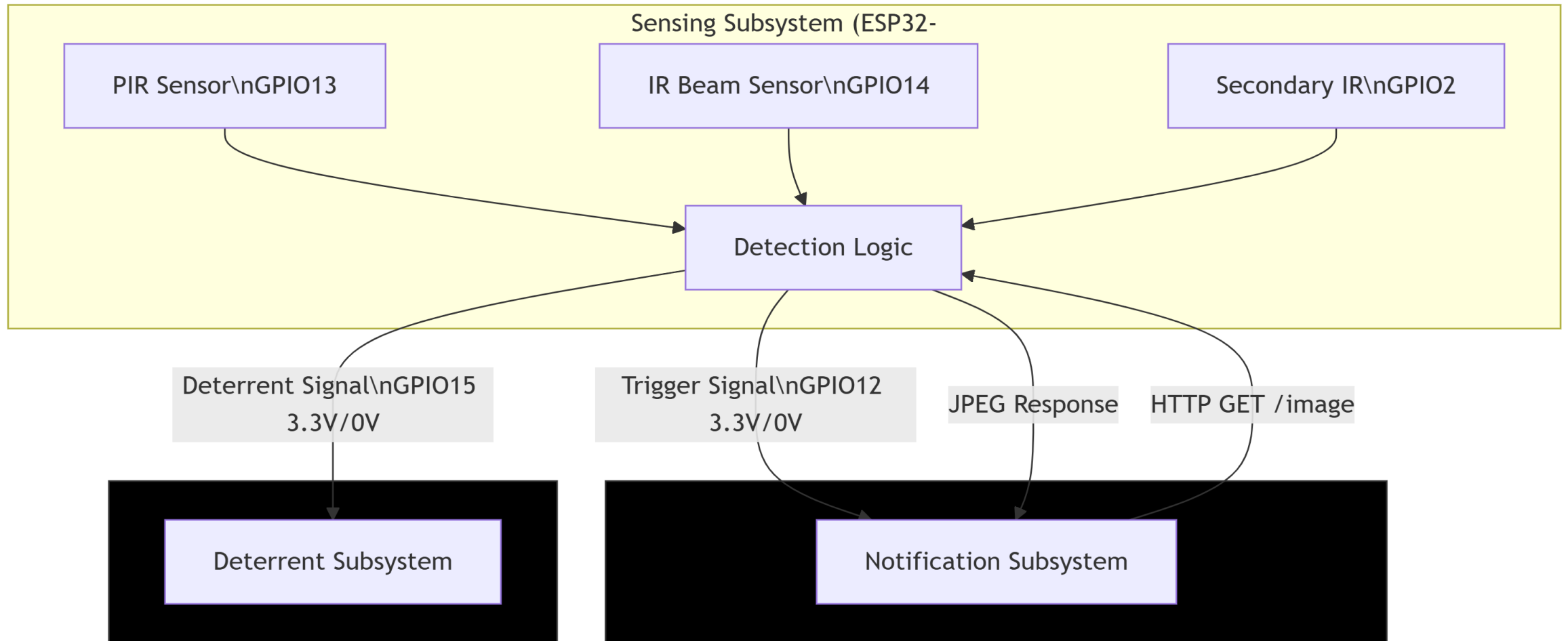


Figure 1.1: Interfacing Block Diagram

SENSING SUBSYSTEM PROTOTYPE

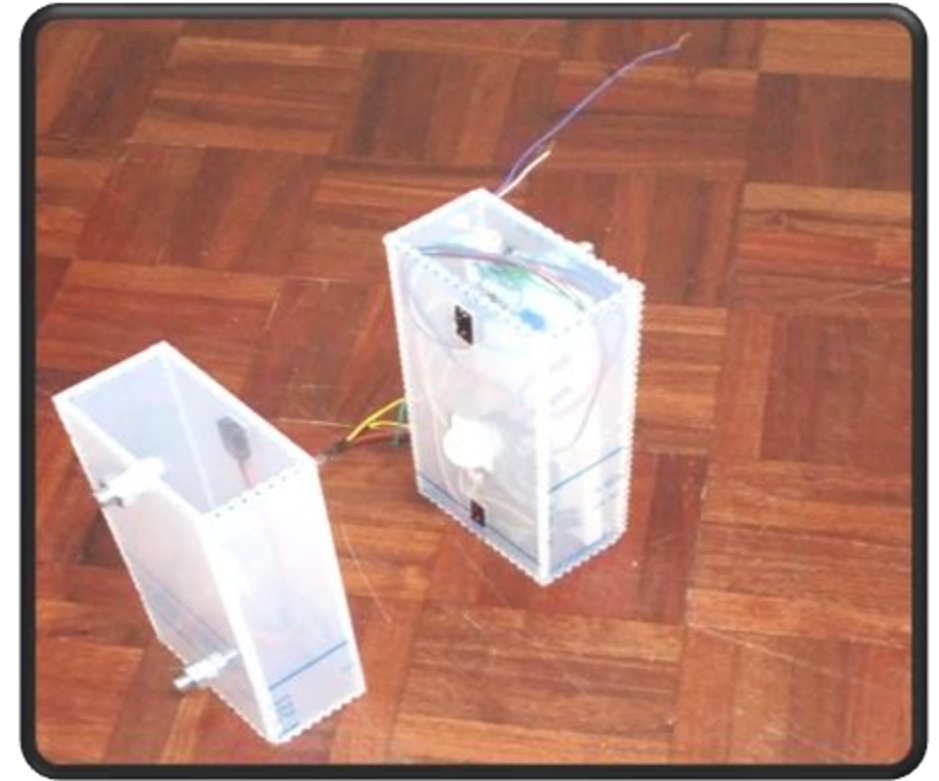
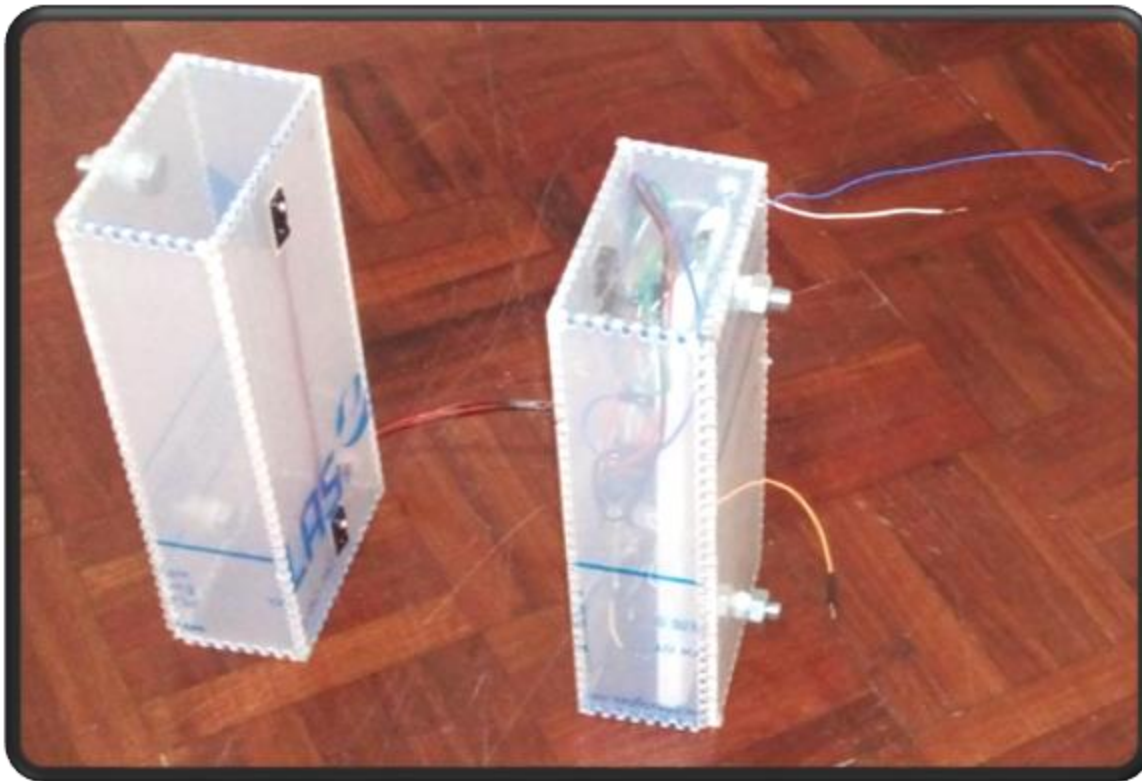
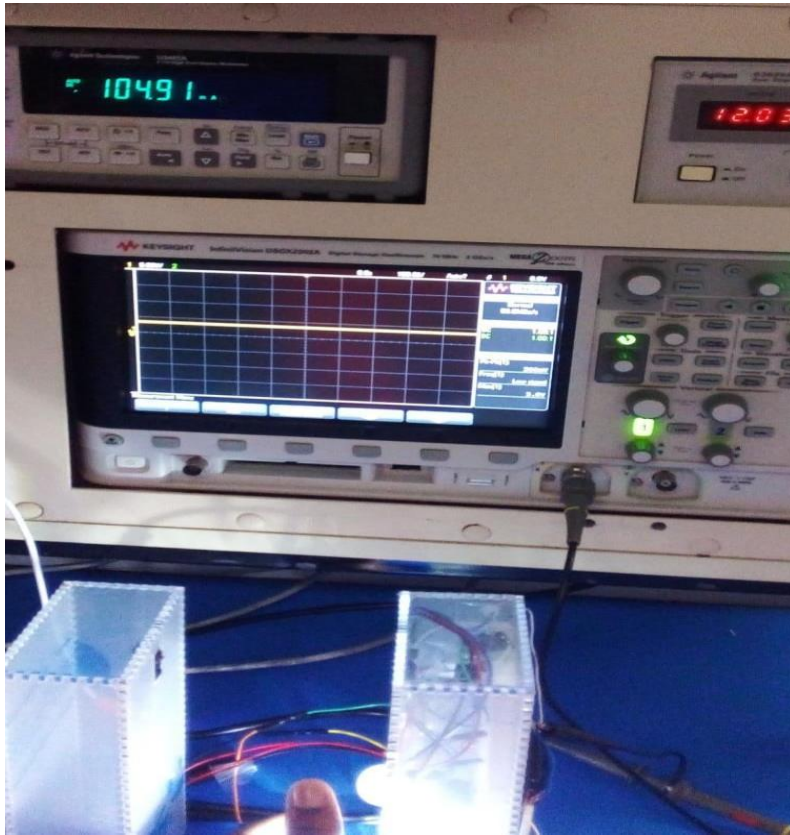


Figure 1.2: Final Built Sensing Subsystem Prototype

SENSING SUBSYSTEM RESULTS



- Consumes less power, $<4W$
- Is triggered by animals between 20cm to 37cm
- Identification of intruders
- Weather Resistant

Figure 1.3: Operating with less power test result

SONIC DETERRENT SUBSYSTEM

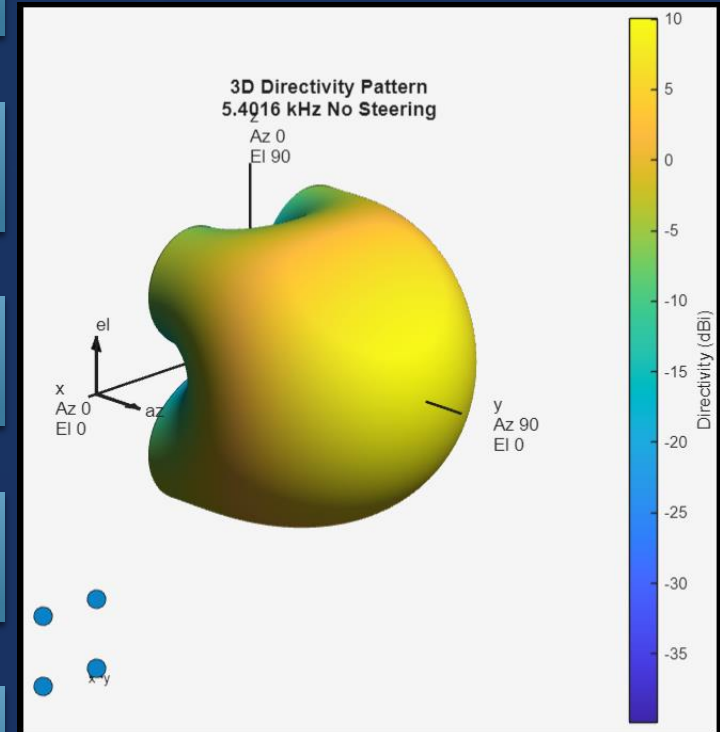
- LRAD Based Design

- Rapid Subsystem Activation: $t < 3\text{ms}$

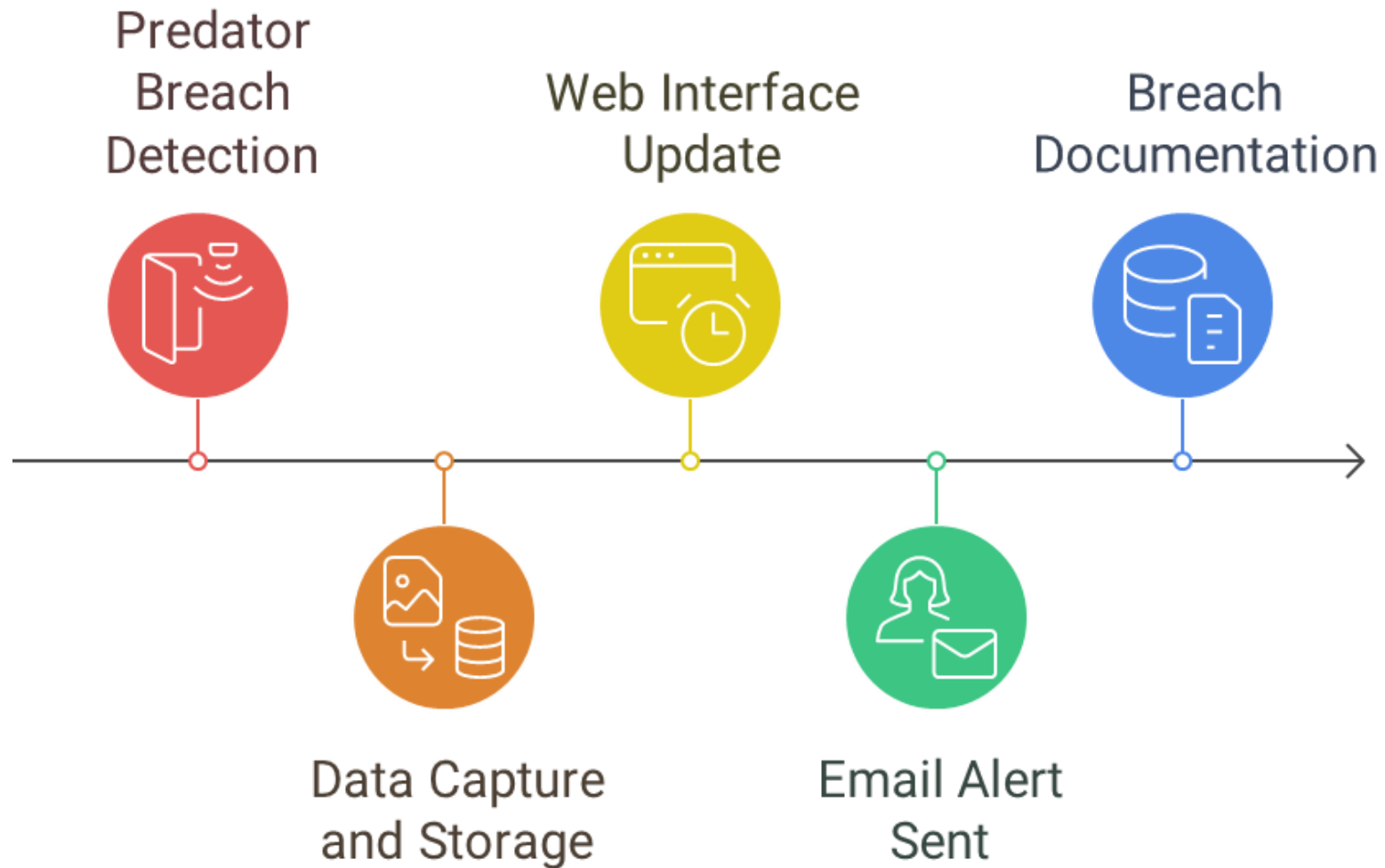
- Low Power consumption: $P < 4\text{W}$

- Weather-proof design considerations

- Future Design Improvements

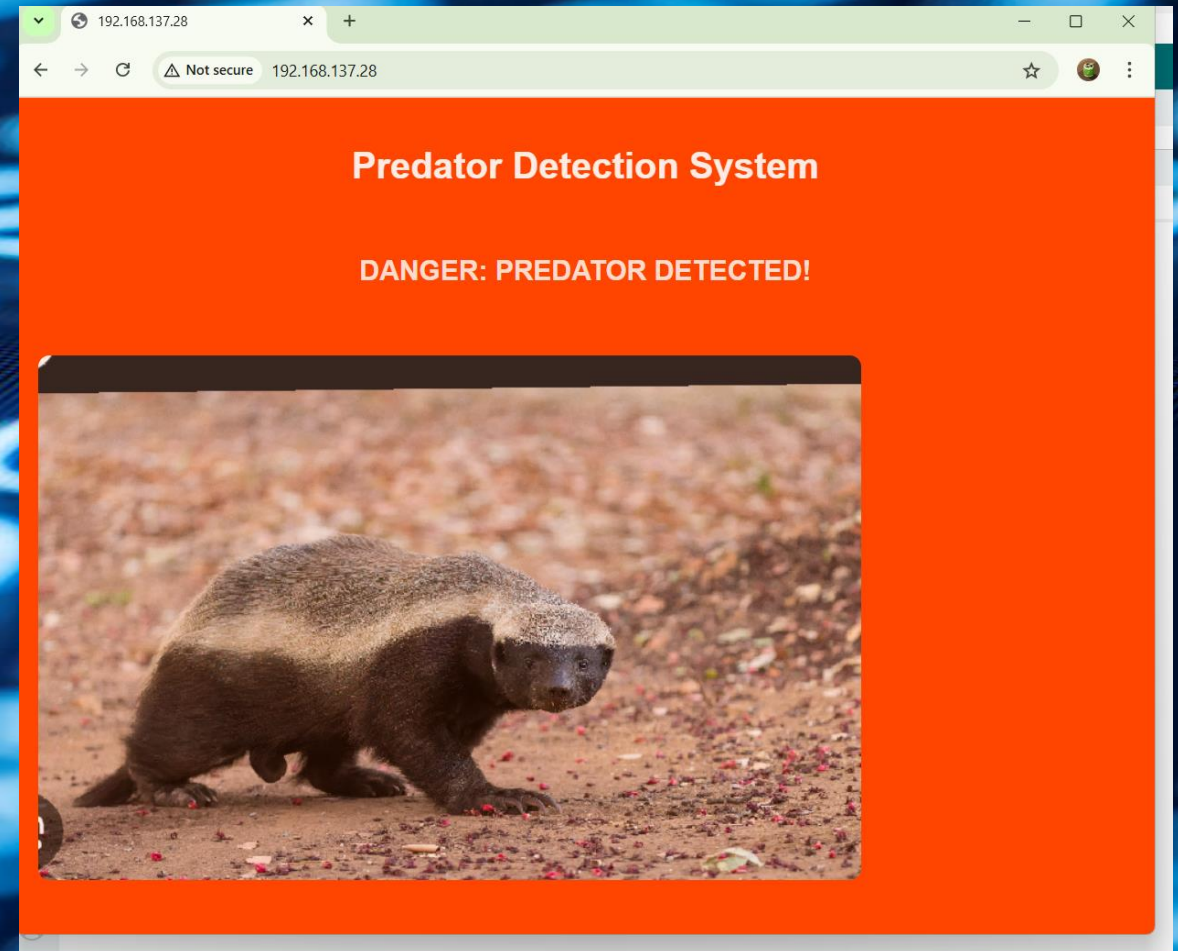
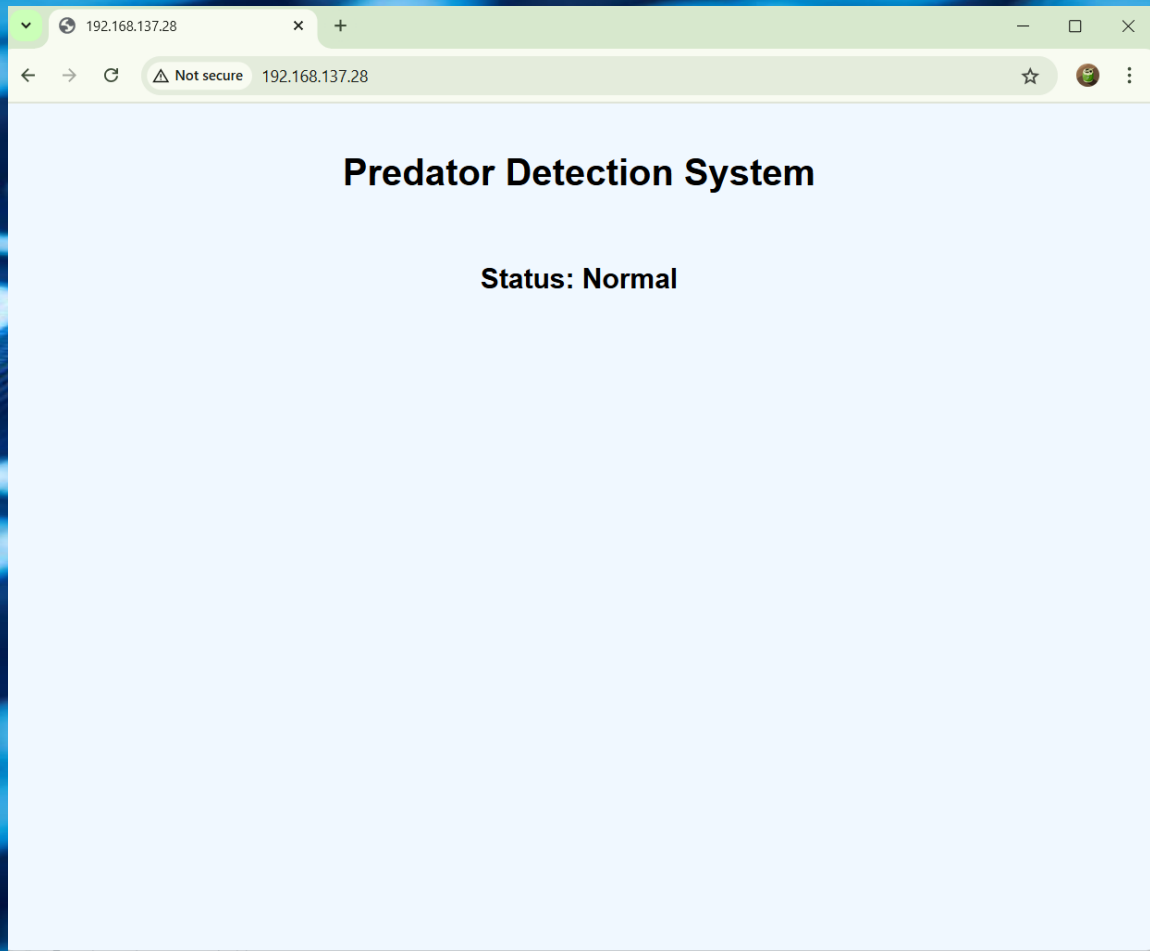


NCC SUBSYSTEM OPERATION SEQUENCE



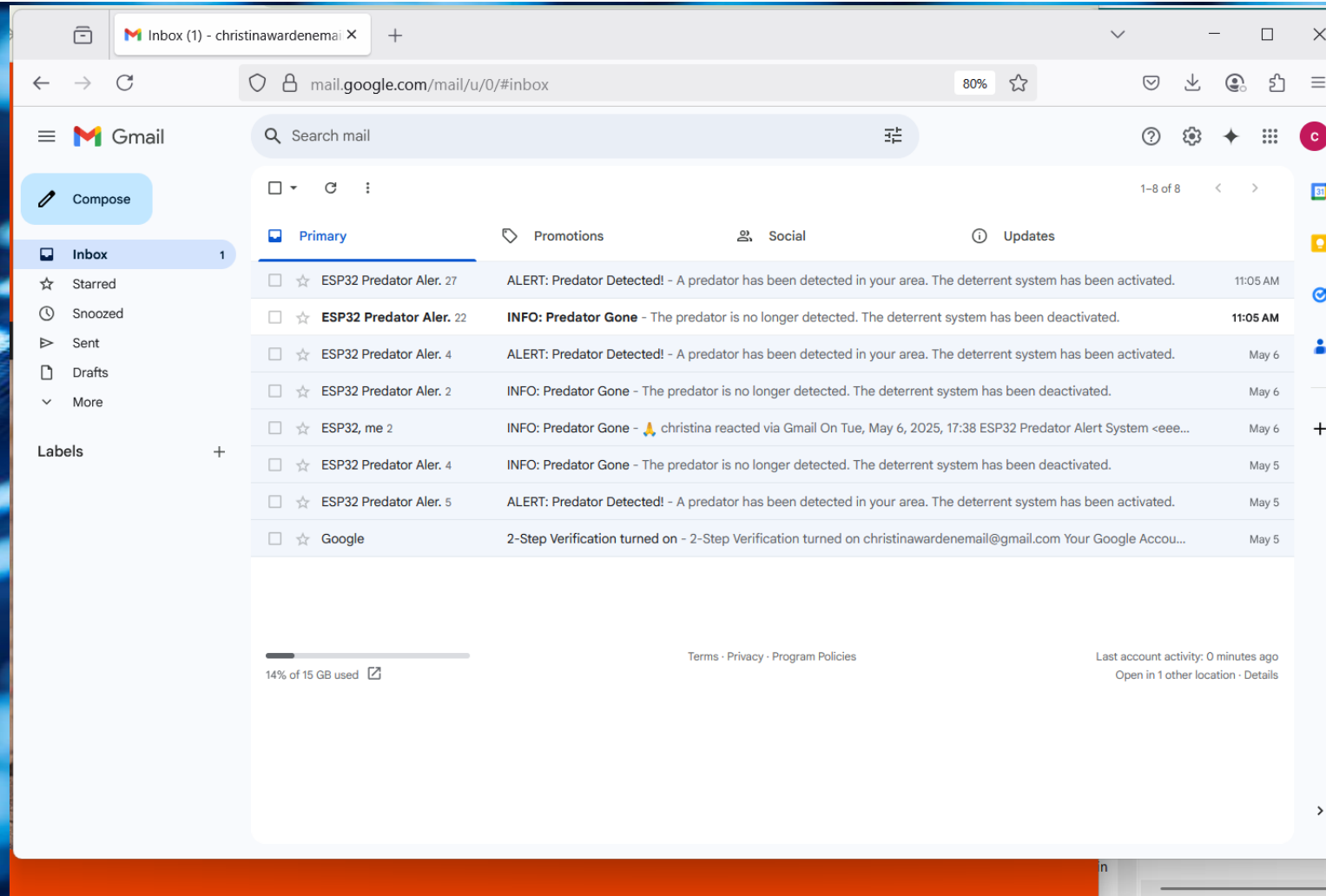
NCC DESIGN & RESULTS

❏ REAL-TIME WEB BASED MONITORING



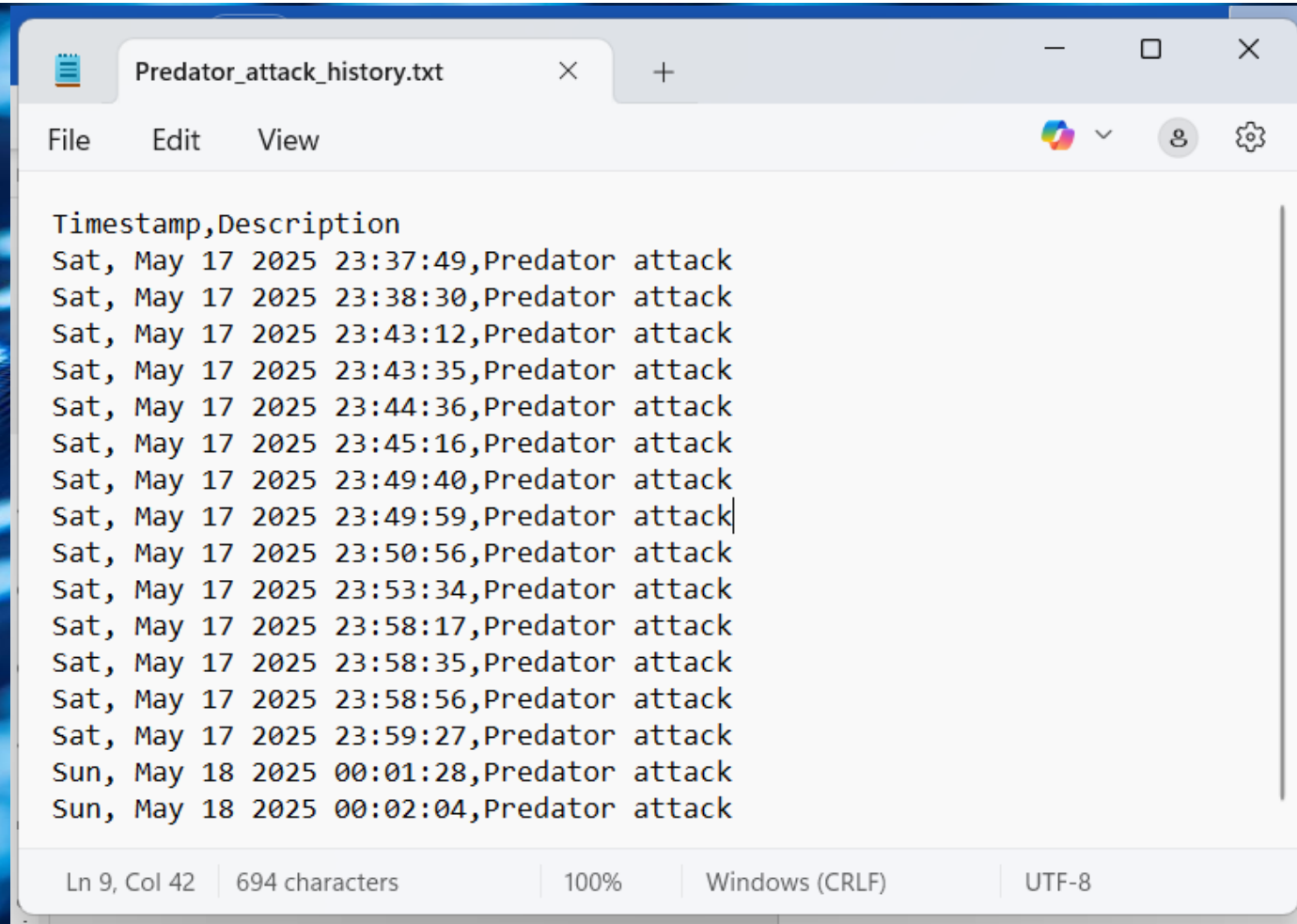
NCC DESIGN & RESULTS

❑ EMAIL ALERT TO CHRISTINA (THE WARDEN)



NCC DESIGN & RESULTS

❏ DATA LOG OF ATTACKS

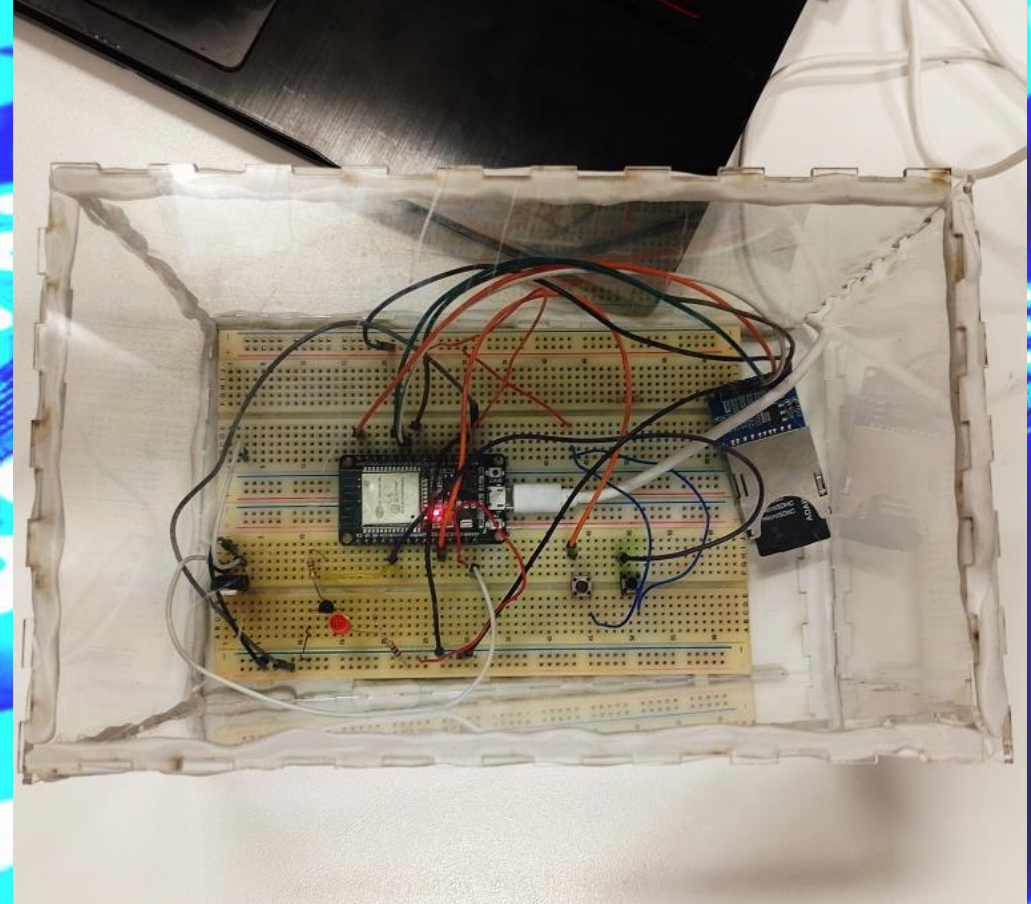
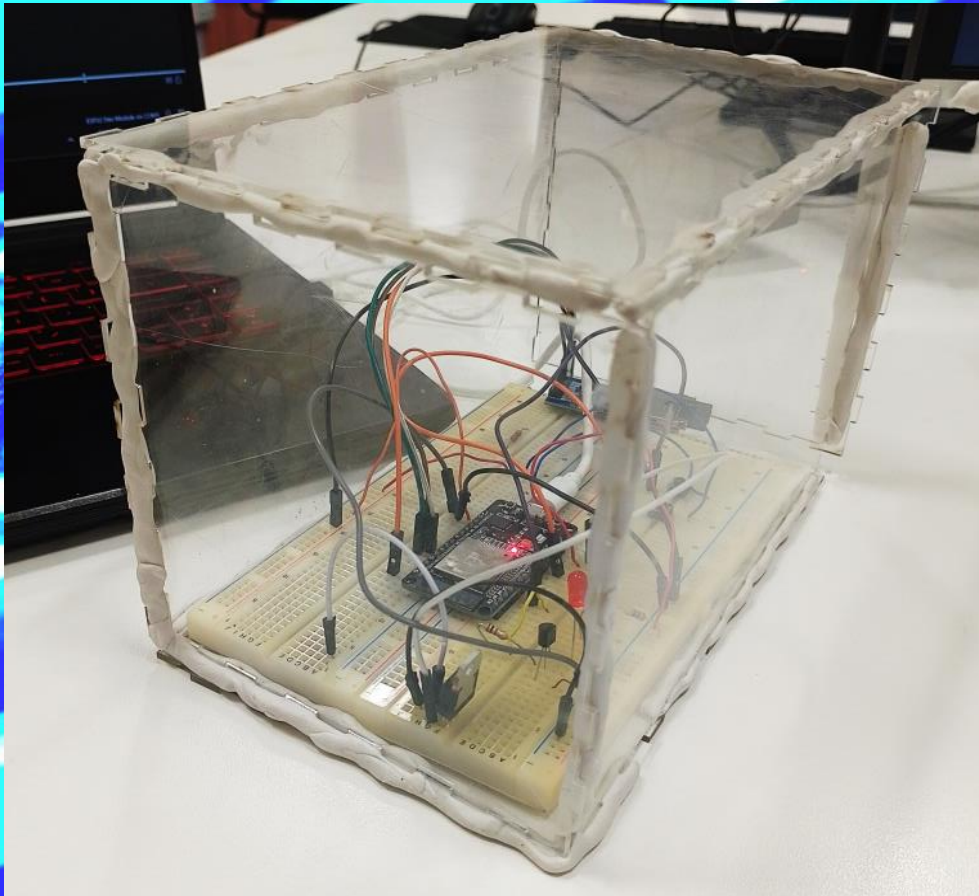


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Timestamp,Description
Sat, May 17 2025 23:37:49,Predator attack
Sat, May 17 2025 23:38:30,Predator attack
Sat, May 17 2025 23:43:12,Predator attack
Sat, May 17 2025 23:43:35,Predator attack
Sat, May 17 2025 23:44:36,Predator attack
Sat, May 17 2025 23:45:16,Predator attack
Sat, May 17 2025 23:49:40,Predator attack
Sat, May 17 2025 23:49:59,Predator attack
Sat, May 17 2025 23:50:56,Predator attack
Sat, May 17 2025 23:53:34,Predator attack
Sat, May 17 2025 23:58:17,Predator attack
Sat, May 17 2025 23:58:35,Predator attack
Sat, May 17 2025 23:58:56,Predator attack
Sat, May 17 2025 23:59:27,Predator attack
Sun, May 18 2025 00:01:28,Predator attack
Sun, May 18 2025 00:02:04,Predator attack
```

Ln 9, Col 42 | 694 characters | 100% | Windows (CRLF) | UTF-8

NCC DESIGN & RESULTS

❑ MECHANICAL HOUSING OF ELECTRONICS



PROJECT RESULTS - NCC



THANK YOU

GROUP 17