**Progress Report Number Five (4/12/2021)**

**Project Name:**

* REsDR (pronounced ‘reader’)

**Name/Roles of Team Members:**

* Ryan Eslick - Team Leader, Reverse Engineer
* Austin Brown - Signals Engineer
* Hunter Griffin - Technical Writer/Reviewer, Software Engineer
* Carter Church - Spectrum Analyst
* Daniel Bangham - Protocol Expert

**Updated Project Summary/Abstract:**

With the recent growth and utilization of software defined radio technology in commercial products, a greater focus on communication security needs to be upheld. The primary objective of the REsDR project is to develop a streamlined process of radio communication protocol recovery given a black box system. This entails initially having no formal understanding of the device, then reverse engineering its communication processes solely from wireless transmissions emitted by the device and OSINT. The final goal of this project is to effectively decode and analyze a series of black boxes emitting binary data to achieve full understanding of each device’s communication capabilities, then document this process accordingly for use on future devices.

**Current State of Project:**

* Acquired black box devices from Dr. Wells
* Thinking of ideas for video/report/poster
* Testing our methodology against each device
* Refine methodology for final report and design review

**Major Project Issues/Obstacles Identification and possible solutions:**

*Obstacles)*

1. Old garage door opener device does not appear to be functional

*Possible Solutions)*

1. Inquire with Dr. Wells as to if testing only the other three devices will suffice.

**Next Sprint Objectives:**

* Prepare and review final report discussing reverse engineering methodology
* Prepare and review 30” x 40” project poster detailing method and findings
* Create 3-5 minute video presentation discussing team, findings, and accomplishments
* Continue to refine methodology; Test against given devices from Dr. Wells

**Project Effort Log:**

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| --- | --- |
| **Team Member** | **Hours Spent on Project** |
| Ryan Eslick | 24 |
| Austin Brown | 18 |
| Hunter Griffin | 22 |
| Carter Church | 20 |
| Daniel Bangham | 16 |