

Biweekly Report 1

- Schedule a meeting with your project advisor and the client to discuss your design from CPRE/EE/SE 491 and kick off the design for CPRE/EE/SE 492.
- **Prepare an agenda for the meeting, including the following items:**
 - Introductions
 - Review of your design from CPRE/EE/SE 491 (What did you accomplish? What did you learn? What next steps are you planning?)
 - Accomplished: CAN bus communication on the Raspberry Pi testbed, all necessary parts curated and ordered for the Car testbed.
 - Learned: Raspberry Pi OS, Arduino IDE, and knowledge about the CAN bus protocol and ways to implement it.
 - Next Steps: Scale up the Raspberry Pi testbed to have more nodes and begin viewing and analyzing traffic. For the Car testbed, power the components and begin connecting them together.
 - Discussion of any changes or improvements to the design
 - For the Pi testbed, look for non-corrupt drivers for the ECUsim in order to increase the complexity of the design.
 - For the Car testbed, focus on viewing and injecting messages rather than immediately beginning to deploy an IDS onto the network.
 - Discussion of the objectives and requirements for CPRE/EE/SE 492
 - Monitor and gather traffic on the car, not necessarily deploying the IDS. For the IDS, it can be offline loaded instead of real-time.
 - Discussion of the schedule and milestones for the project
 - Alec and Trace: First two weeks, ECUSim integration. Next two, inject attacks and view traffic. Next two, introduce IDS into system.
 - First two, power the testbed and observe traffic from it. Next two, MiTM integration and attack injection.
 - Review your team process and discuss any changes or improvements
 - Q&A session

- **Conduct the meeting and take detailed notes on the discussion and any decisions made**
 - Cole break progress: received most parts from ETG, in communication to receive remaining items
 - First two weeks: Get ECUSim working on the Pi testbed. Get car testbed components connected and powered
 - Next two weeks: Introduce attacks to the Pi and car testbed and confirm they work.
 - Next two weeks: Add IDS node to can channels and create basic rules for intrusion detection
 - New meeting time Monday 12:30 and set time for students to discuss with each other each week
- **Prepare a summary of the meeting, including the following items:**
 - Include the Project title and Team information, including attendance. (Include a reason if there is an absence)
 - Alec
 - Cole
 - Trace
 - Tiffanie - Foot Surgery
 - Summary of the main points discussed
 - End milestone/goal
 - Get version of IDS going on Pi testbed, and be able to see and inject real CAN frames onto the Car testbed.
 - 6 week look ahead plan. For each team of 2, we will have two-week sprints where we will accomplish the tasks we detailed objectives section above
 - List of any decisions made
 - Figured out new meeting time and project planning strategy. Also adjusted expected milestones for the next 2 months.
 - List of any actions to be taken
 - Talk with ETG to discuss parts that were not delivered for Car testbed.
 - Next steps for the project
 - Integrate ECUSim into the Pi testbed by finding sufficient platform specific drivers.
 - Begin powering and connecting car components into the testbed.