EE/CprE/SE 491 WEEKLY REPORT 1

January 24 – February 5

Group number: 9

Project title: Arinc429 Portable Receiver APP and Firmware

Client &/Advisor: Colin Cox & Daji Qiao, Mathew Wymore

Team Members: Eduardo Contreras, Riley Millam, Nicholas Morgan, Jared Staskal, Nate Trotter

o **Weekly Summary** *We met with our advisors and our client on Thursday, February 2. After the meeting we drew up a summary of how we think our system should work and sent that to our client to check if we'd had any misunderstandings or were ready to move forwards. Finally, we've been studying the data sheets and documentation for the various technologies that will be used during the duration of the project.*

o **Past week accomplishments**
  - Researching Arinc429 - All
    - Read up on Arinc429 through the wikipedia page and the documentation provided by Colin
  - Researching ESP3S23 - All
    - Reading up on the ESP IDF to develop on the chip, and reading up on the specifications for the chip
  - Researching and installing Flutter - All
    - Setting up a development environment for the flutter application
    - Did some testing and coding on Flutter
  - Drawing up a simple plan for our system - Jared
    - Drew a current understanding of the desired system in order to sync up expectations and demonstrate our current understanding of the goals
  - …

o **Pending issues**

  Some uncertainty around specifics of the requirements for the project.

o **Individual contributions**

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Eduardo Contreras	Attended the weekly meeting on February 2. Studied data sheets given by the client describing the technologies to be used in the project.	4	4
Riley Millam	Attended the team meeting on February 2. Has been in charge of communication with the client and advisors. Studied data sheets given by the client describing the technologies to be used in the project.	4	4
Nicholas Morgan	Attended the weekly meeting on February 2. Studied data sheets given by the client describing the technologies to be used in the project.	4	4
Jared Staskal	Attended the weekly meeting on February 2. Studied data sheets given by the client describing the technologies to be used in the project. Worked on a primitive diagram of the expected system.	4	4
Nate Trotter	Attended the weekly meeting on February 2. Studied data sheets given by the client describing the technologies to be used in the project.	4	4

o **Comments and extended discussion** *(Optional)*
   Feel free to discuss non-technical issues related to your project.

o **Plans for the upcoming week**
   We'll continue studying the technologies we'll be using in order to better understand how to progress. We are also planning to meet with Colin at some point in order to obtain the necessary hardware to move forwards. The final concrete part of our plan for the coming reporting period is to acquire a locker in the Senior Design Lab for the hardware components.

```
Arinc429        Holt 429        ESP3S23    BLE   Flutter App
Serial Bus  <-> Receiver   <->  Chip      <->
```

We will be writing firmware for this chip in order to read in the data from the Holt 429 Receiver, and encode it to be sent to the Flutter app over Bluetooth Low energy

We will be writing a Flutter application to receive and send the labels/words over BLE. Flutter will take care of making the app cross platform, we just need to build the design and functionality