Setup requirements for raspberry pi - [Kelly Mae Allen](mailto:kmallen5@ncsu.edu)

1. Uart port GPIO identified - website that has code and pinouts linked here

<https://pinout.xyz/pinout/uart>

1. Code script written to setup serial port at 115200 baud to communicate a hardcoded string “D: 172” over UART
2. Code script written to read and accept string “A: 19” and interpret data to store in memory
3. Figure out how to run a script on startup, to configure the pi as a microcontroller that will communicate with protocontrol automatically
4. Create a test script that can both read and write to UART channel and has both input and output demonstrations
   1. Connect digital component to display processed result
5. Breadboard out a circuit to demo script, working with both inputs and outputs to test serial timing, maybe interrupts, verify baud with oscilloscope, and print sent and received values to serial monitor
6. Create example demo system that is capable of demonstrating analog and digital inputs, and analog and digital outputs.