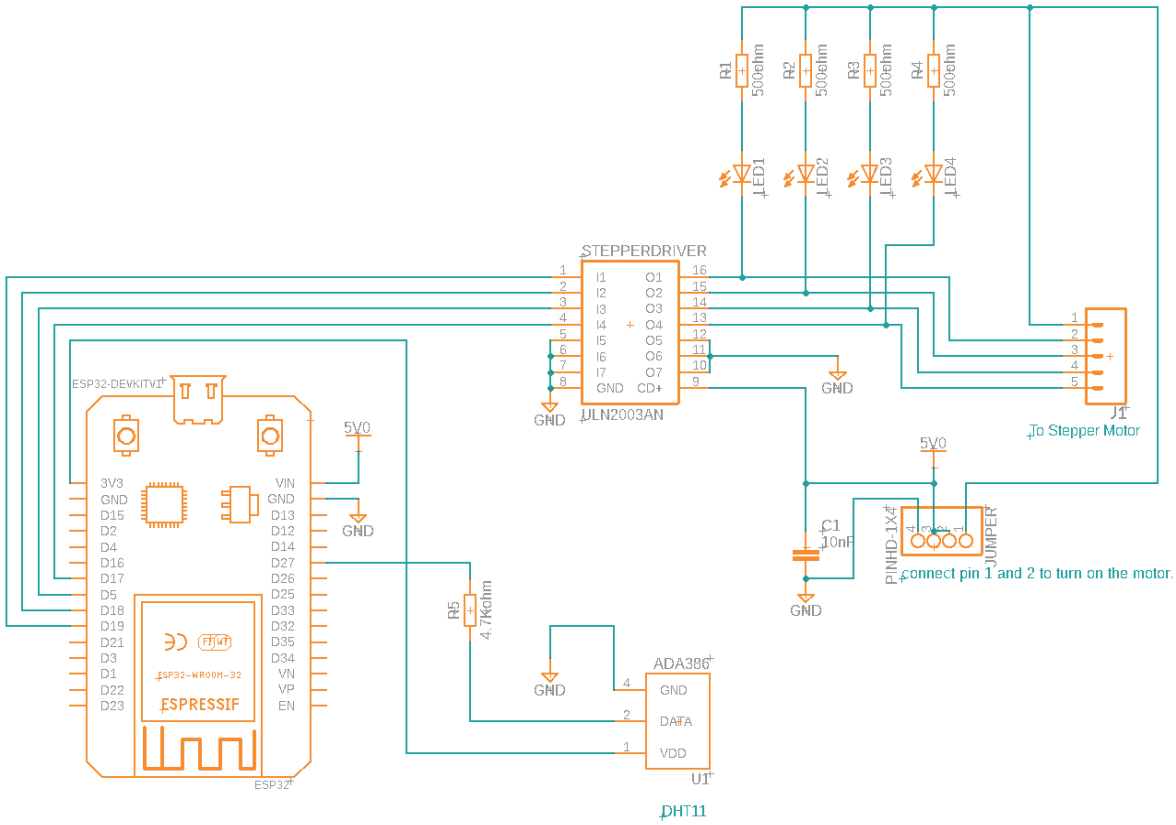
Practicum week 5: Schematic
Link to schematic: https://github.com/Inadora/ECE411-Team3/tree/main/CircuitBoard (schematic is made in Fusion 360 but exported as an Eagle filetype)



Todo:

1. Investigate separating the power of the motor from the power of the ESP32.
2. LED's turn on when the motor is running… Pointless? Idk… They show the speed of the motor… but they flash really fast and it will be inside the case.
3. Use a power supply instead of USB to ESP to power the device
4. Change the DHT data line resistor R5 to a pull-up resistor connected to the 3.3v instead of inline to the data pin
5. Add buttons to manually turn the heater on or off
6. Look into BMS systems and see if it would be practical to implement a battery to our system

How it works

1. The ESP32 passes 5v through the USB port to the VIN pin.
    a. We currently power the stepper motor with that 5V pin
2. Originally we powered the DHT11 with the +5V VIN pin. But since our ESP32 has 3.3v datalines the 5V was too much for them and produced many errors reading the temp.

3. The 4x1 pin jumper is a male header… But we really only need 2 pins to use a jumper that disables the stepper motor when removed.