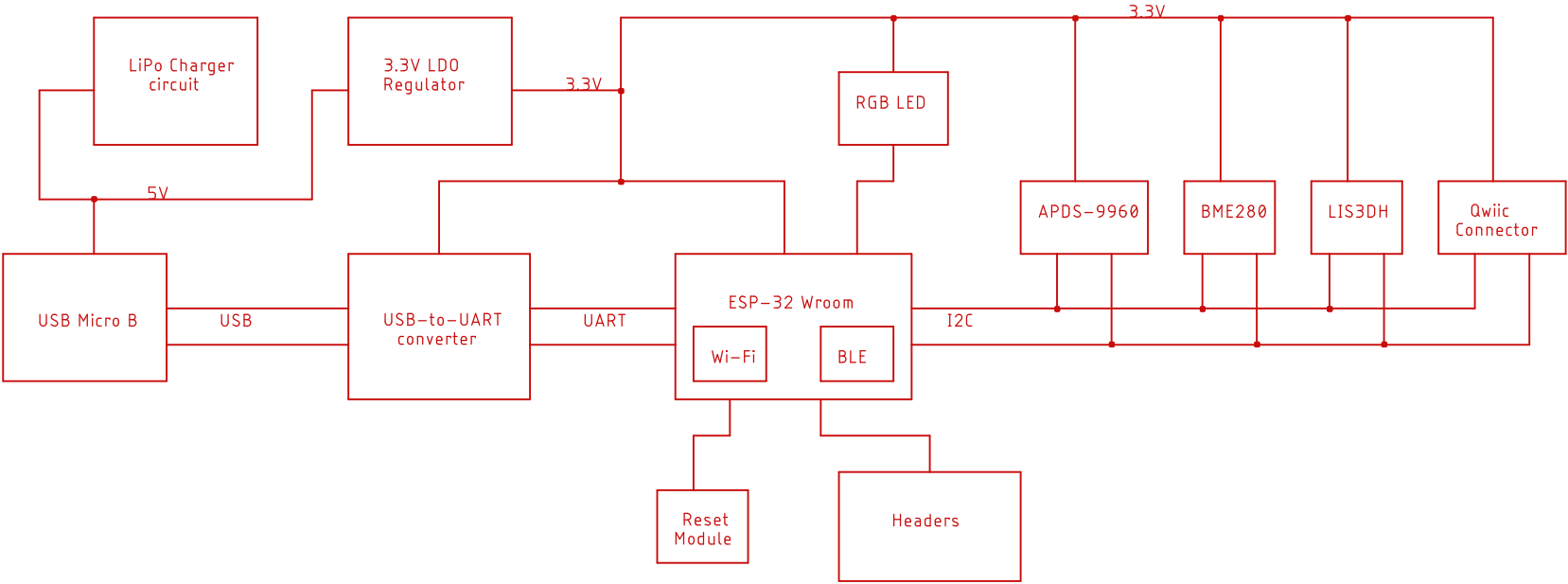
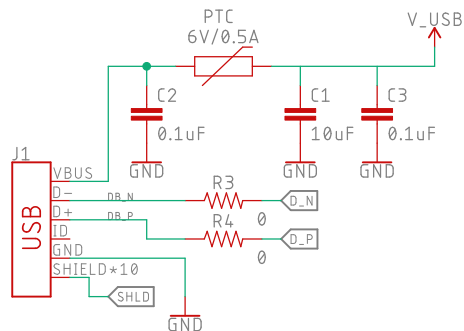


# Legacy Mk-II Block Diagram



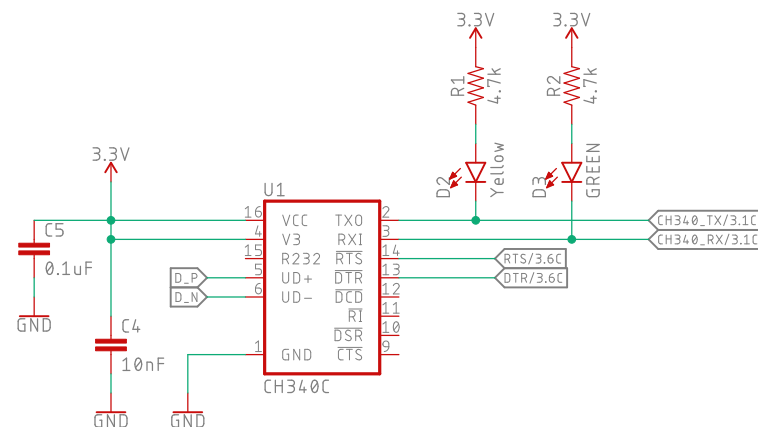
Block Diagram	Akash Patil	
	Legacy MkII	
	11/12/2020 7:15 PM	
	Sheet: 1/4	

## Micro USB connector



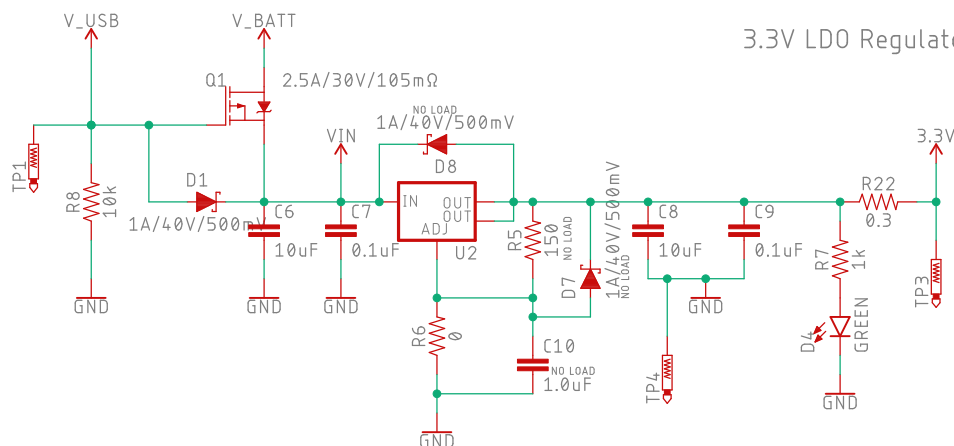
D+ and D- must be routed as a differential pair.

## USB-to-UART converter



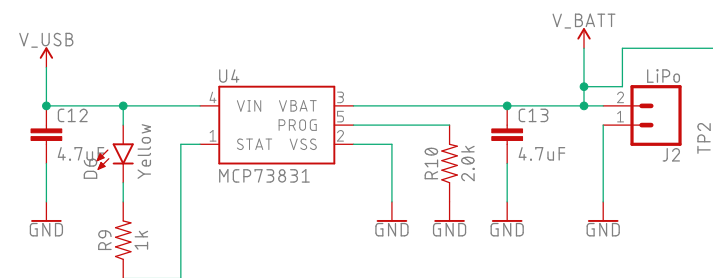
VCC must be connected to V3.  
Add 0.01uF cap between VCC and GND.  
No other voltage in this section must be connected to 5V.

## 3.3V LDO Regulator



D8 and D7 ensure device is protected against accidental -ve voltage at VIN, VBAT or VUSB.

## Li-Po charger



Single Cell Li-Po only.

USB to UART Converter,  
LDO Regulator and  
Li-Po charger Circuit

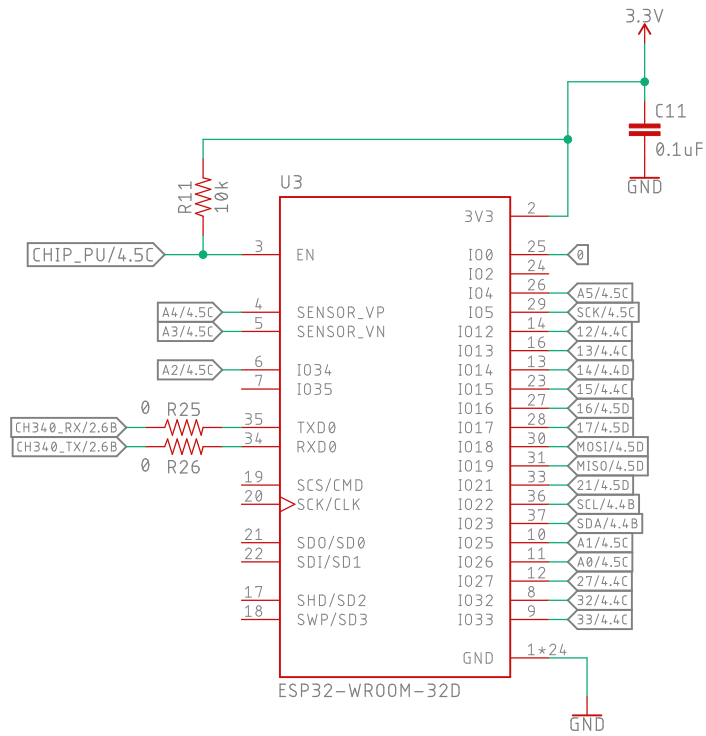
Akash Patil

Legacy MkII

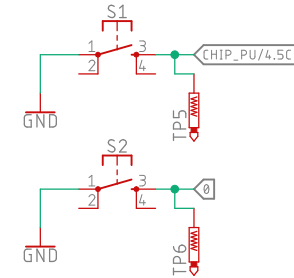
11/12/2020 7:15 PM

Sheet: 2/4

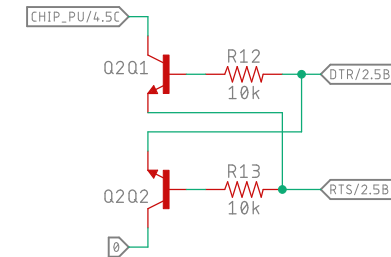
ESP32



Push Button switches



Auto Reset



ESP32,  
Auto reset  
and switches

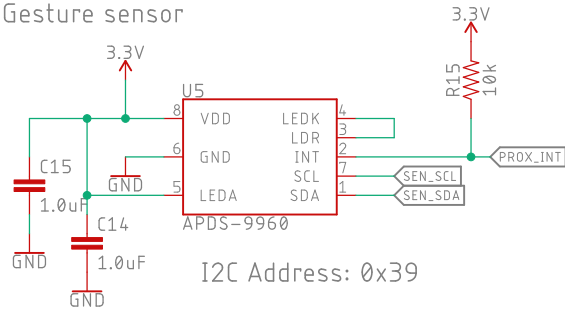
Akash Patil

Legacy MkII

11/12/2020 7:15 PM

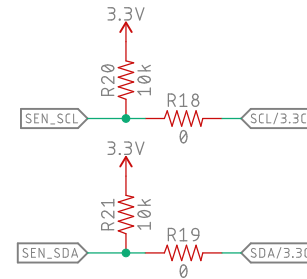
Sheet: 3/4

Proximity, Ambient Light,  
RGB and Gesture sensor

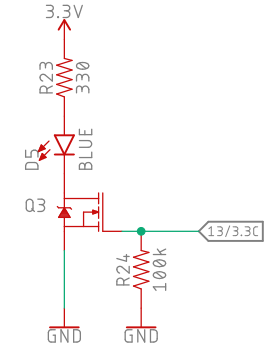


I2C Address: 0x39

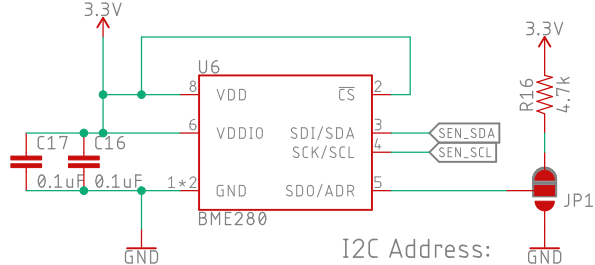
Sensor I2C interface



LED

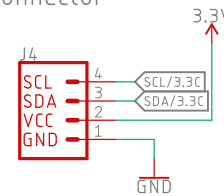


Temperature, Pressure  
and Humidity sensor

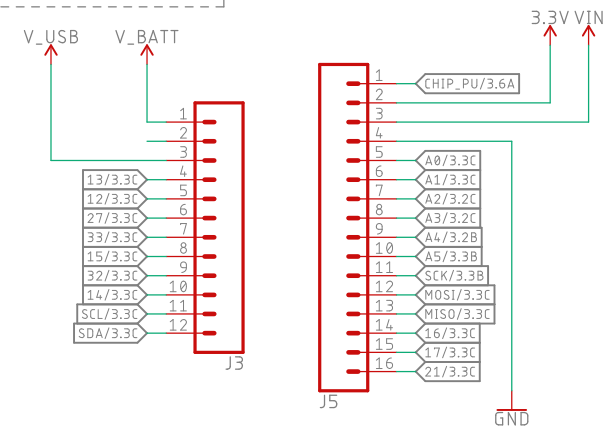


I2C Address:  
Default: 0x77  
Changed: 0x76

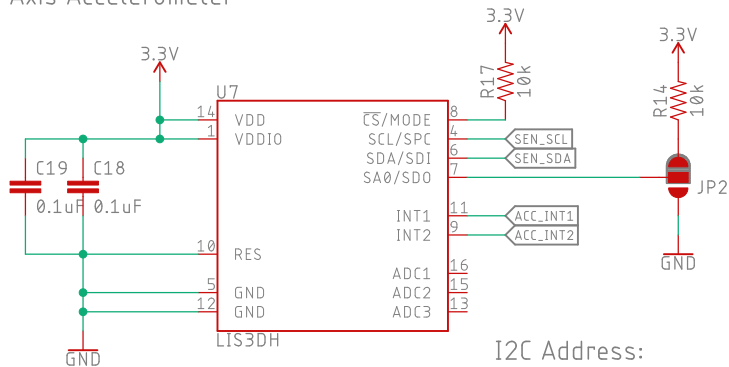
Qwiic Connector



Headers



3 Axis Accelerometer



I2C Address:  
Default: 0x19  
Changed: 0x18

Sensors and  
Headers

Akash Patil	
Legacy MkII	
11/12/2020 7:15 PM	
Sheet: 4/4	