This PCB will be used for the remote e-stop system in two places. 1. This PCB interfaces a sender Feather MO with the button and the Adafruit Nokia 5110 breakout board. 2. This PCB interfaces a receiver Feather MO with the kill signal which will signal the e-stop PCB to kill the motor signals. U1 +3.3V<sup>AdafruitFeatherMOLoRa</sup> 32 RST 31 <sub>3V</sub> 30 ARf SIG\_KILL 2 Kill Signal +57 29 GND 27 A0  $\uparrow$ VBAT 16 26 A1 25 A2 24 A3 23 A4 22 A5 VUSB 14 GND GND D13 13 SIG\_KILL SW1 D12 12 DSPL\_RST) Stop Button Note: SIG\_STOP is active low and uses D11 the Feather MO's internal pullup resistor. 21 SCK 21 MOSI D10 10 DSPL\_DC 9 (SIG\_STOP) 20 MISO D6 8 DSPL\_DIN 19 RX0 D5 7 DSPL\_SCLK GND 18 TX1 17 DIO1 SDA 5 Ant DI05 DSPL\_SCLK 3 CLK 4 DSPL\_DC 5 D/C Nokia5110LED Note: VCC is power for the 3V3 logic. LED is power for the backlight which is recommend 3V3. The Feather cannot source enough current for the 5110 so we use a 560 Ohm resistor with the 5V power (from battery) instead of the recommended 3V3 with 330 Ohm resistor. DSPL\_RST) 7 GND R1 560 +5V ← Noah Zemlin, Sooner Competitive Robotics Sheet: / File: Estop Remote.sch Title: E-Stop Remote Size: USLetter Date: 2020-03-02 Rev: 1 KiCad E.D.A. kicad (5.1.5)-3 ld: 1/1