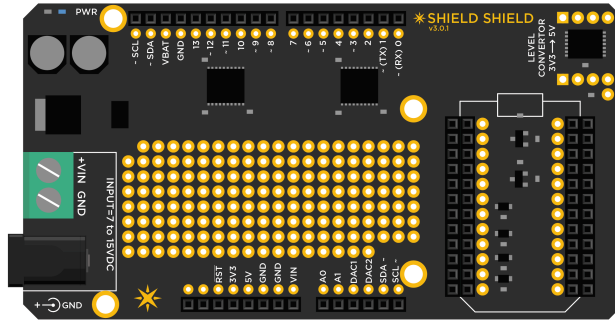


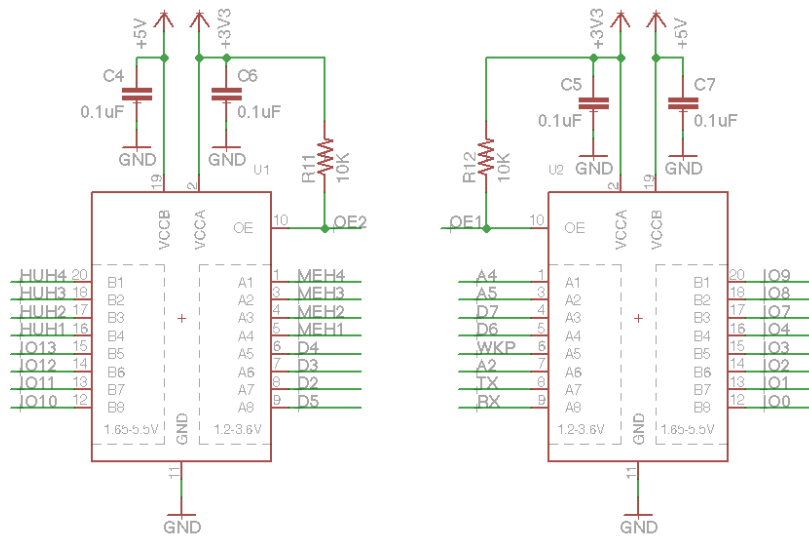
SHIELD SHIELD:

Sometimes life can be a little difficult in the land of electronics when two systems talk a different voltage language. How do you make them talk to each other without making one of them *burn out*? The Shield Shield is the answer. This shield performs all the necessary voltage translation and provides an Arduino-compatible footprint to make it easier for you to plug in your existing Arduino shields or talk to other 5V hardware.



OPERATION:

We use Texas Instruments TXB0108PWR to do the voltage translation in between the Particle's device's 3.3V to a 5V logic. Unlike other IO pins, the analog pins are rated at only a max of 3.3V and **NOT** 5.0V. Please remember NOT to exceed this voltage at anytime. The shield has an on-board voltage regulator and can be powered from 7V to 15V DC source. You could also power it via the USB plug on the Particle device alone but the current would be limited to 500mA.



SPECIFICATIONS (V3.X.X)

- Operating voltage: 7 to 15V DC
- Current consumption: standalone 7mA at 9V DC
- Voltage translator with auto direction detect: TXB0108PWR
- Dedicated MOSFET based voltage translator on I2C lines
- Separate unidirectional quad buffer for driving heavy loads: 74ACT125
- Diode protection on ADC pins
- Dimensions: 3.4" x 2.1"
- Weight: 28 gms