

# Appendix A: Hardware Schematics and Component Data Sheets

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# 1. Indoor Board

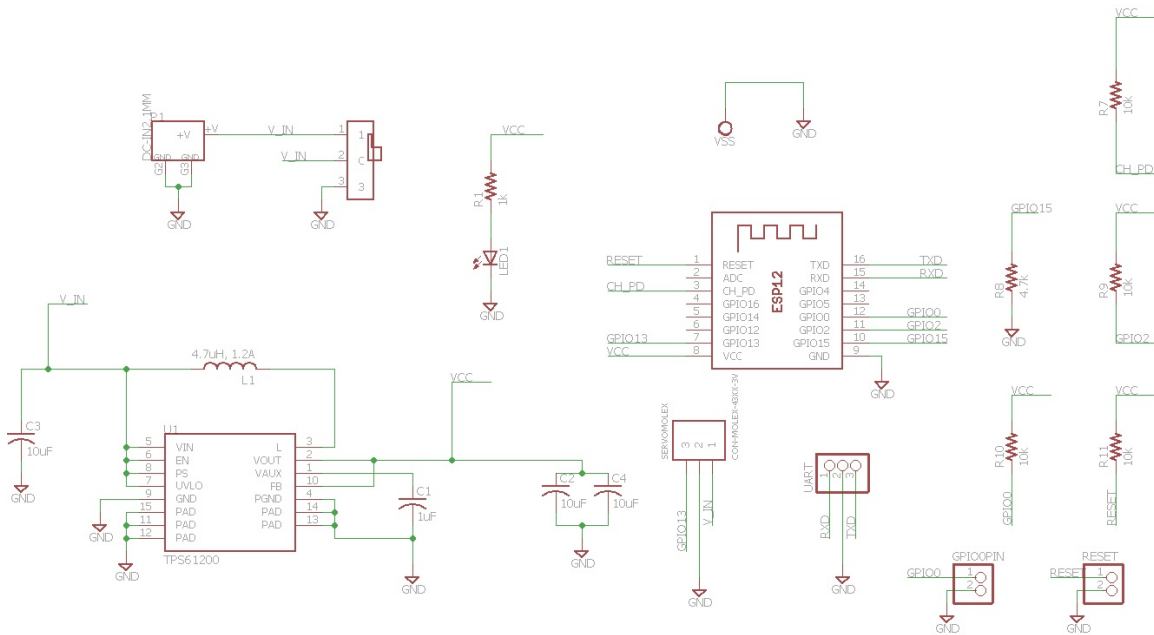


Figure 1. Indoor Board Schematic

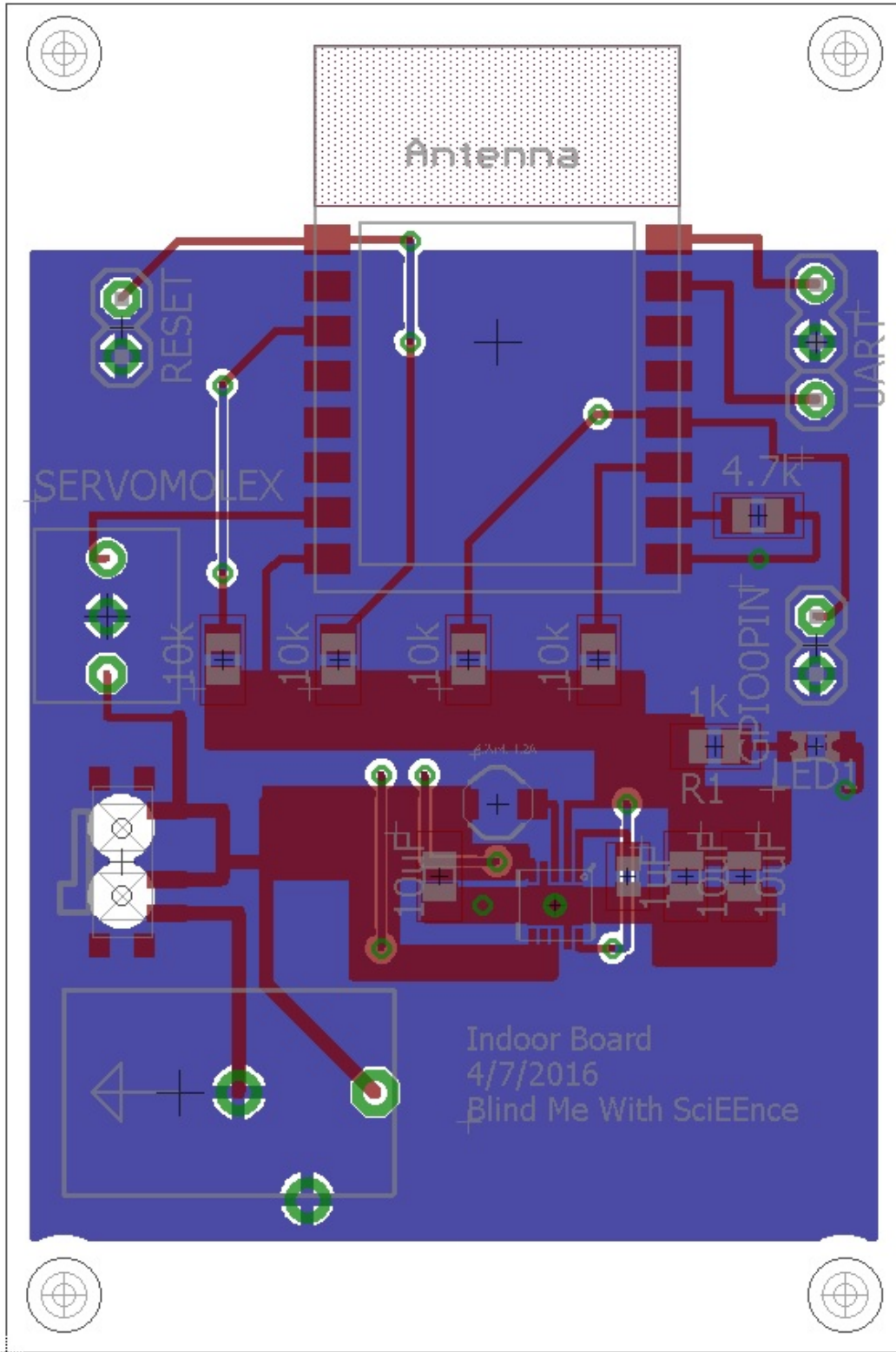
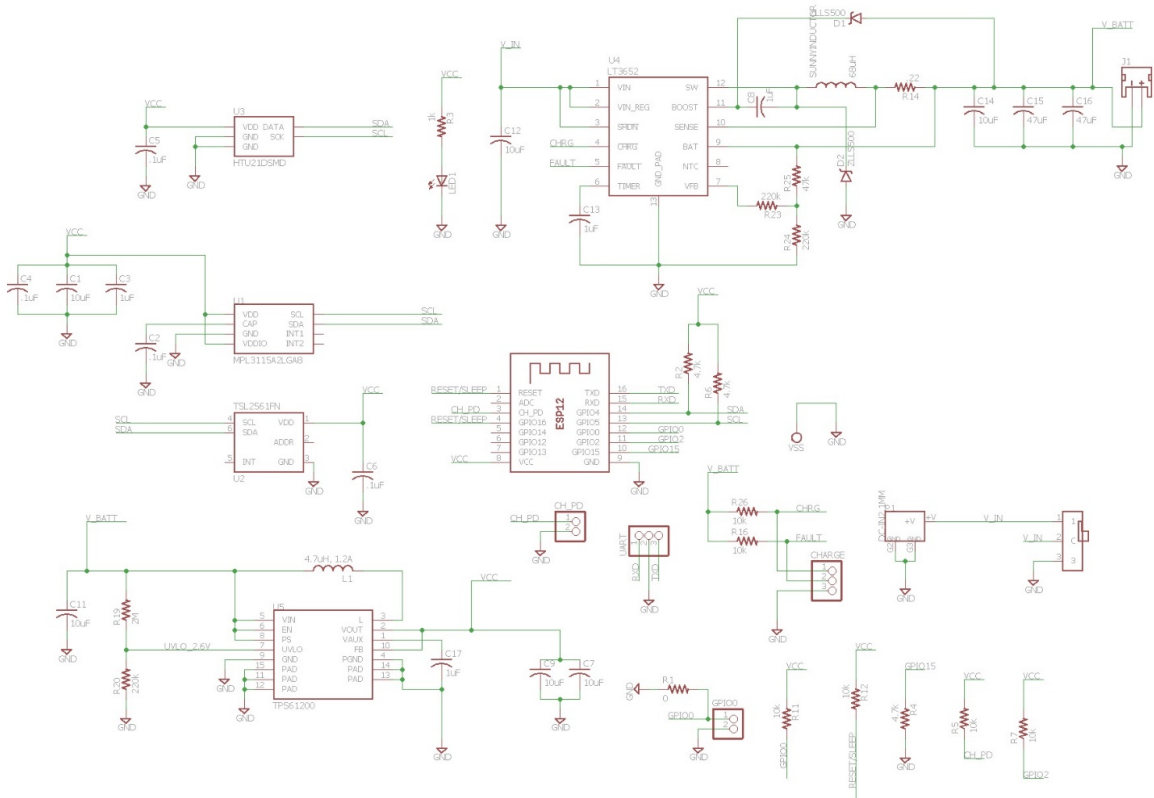


Figure 2. Indoor Board Layout

## 2. Outdoor Board



**Figure 3. Outdoor Board Schematic**

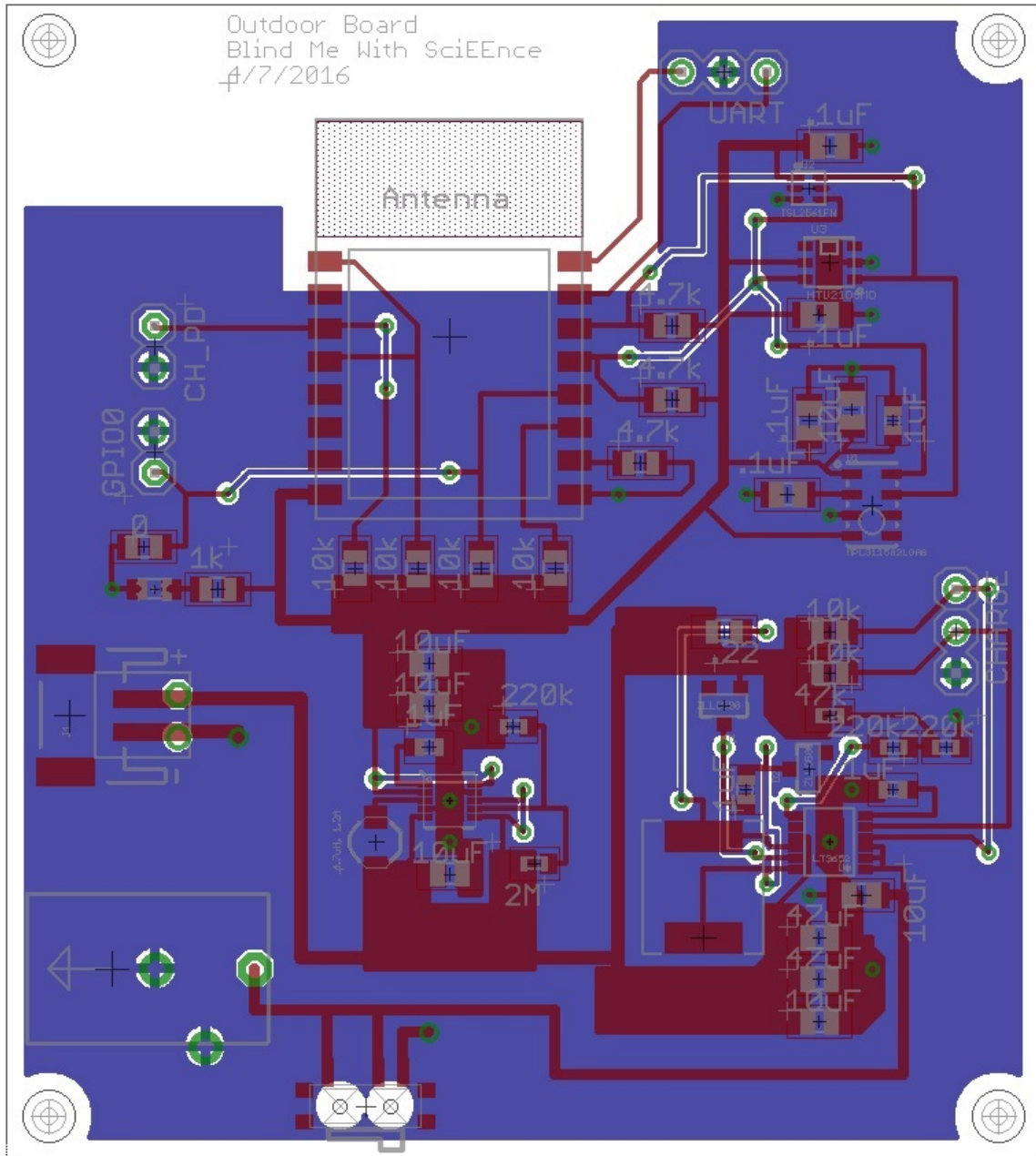


Figure 4. Outdoor Board Layout

### 3. Component Data Sheets

ESP8266 SMT Module – ESP-12E:

[https://cdn-shop.adafruit.com/product-files/2471/0A-ESP8266\\_Datasheet\\_EN\\_v4.3.pdf](https://cdn-shop.adafruit.com/product-files/2471/0A-ESP8266_Datasheet_EN_v4.3.pdf)

LT3652 (Battery Solar Charger – MPPT):

<http://cds.linear.com/docs/en/datasheet/3652fe.pdf>

HTU21D (Humidity/Temperature Sensor):

<http://www.meas-spec.com/downloads/HTU21D.pdf>

TSL2561 (Light Sensor):

<https://cdn-shop.adafruit.com/datasheets/TSL2561.pdf>

MPL3115A2 (Pressure/Altitude Sensor):

[http://cache.nxp.com/files/sensors/doc/data\\_sheet/MPL3115A2.pdf?pspll=1](http://cache.nxp.com/files/sensors/doc/data_sheet/MPL3115A2.pdf?pspll=1)

TPS61201 (DC-DC Converter):

<http://www.ti.com/product/TPS61200/datasheet>