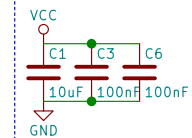
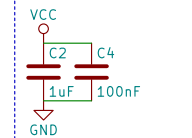


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Sheet: /		
File: Sensor.sch		
Title: Sensor		
Size: A4	Date: 2016-06-05	Rev: 3
KiCad E.D.A. kicad 4.0.4+dfsg1-stable		Id: 1/6

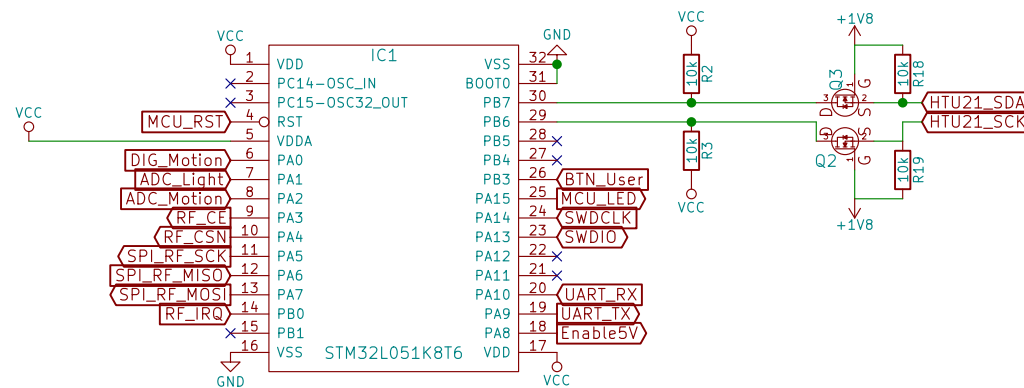
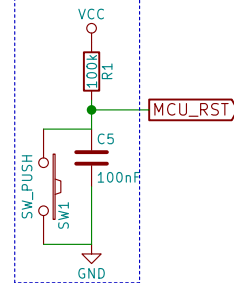
Close to VDD & VSS



Close to VDDA



Reset circuit



Peripherals:
 RF module (SPI, CSN, CE, IRQ)
 HTU21D (I2C)
 Light sensor (adc, enable)
 Motion (ADC, enable)
 UART
 SWD

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Sheet: /CPU/

File: cpu.sch

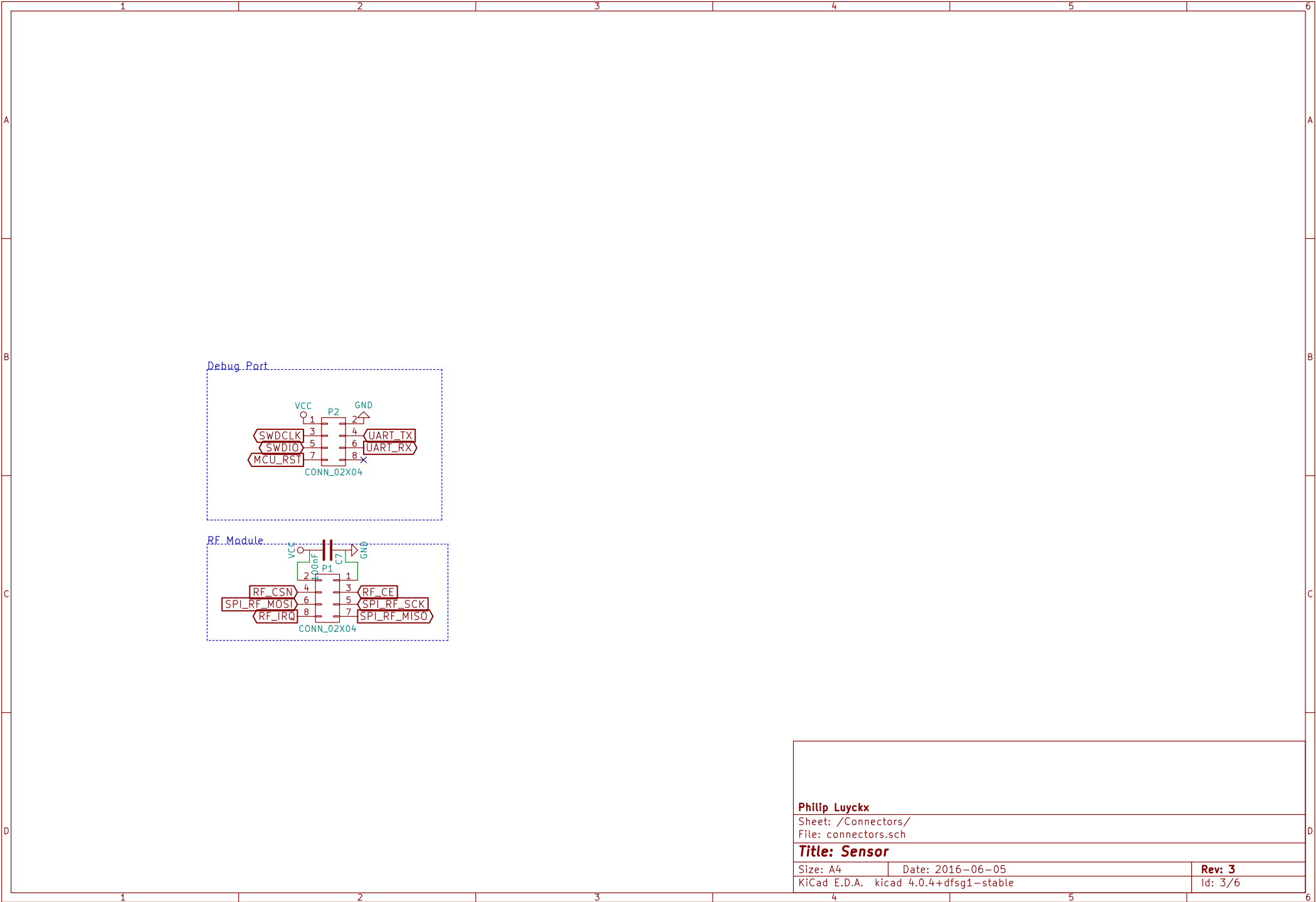
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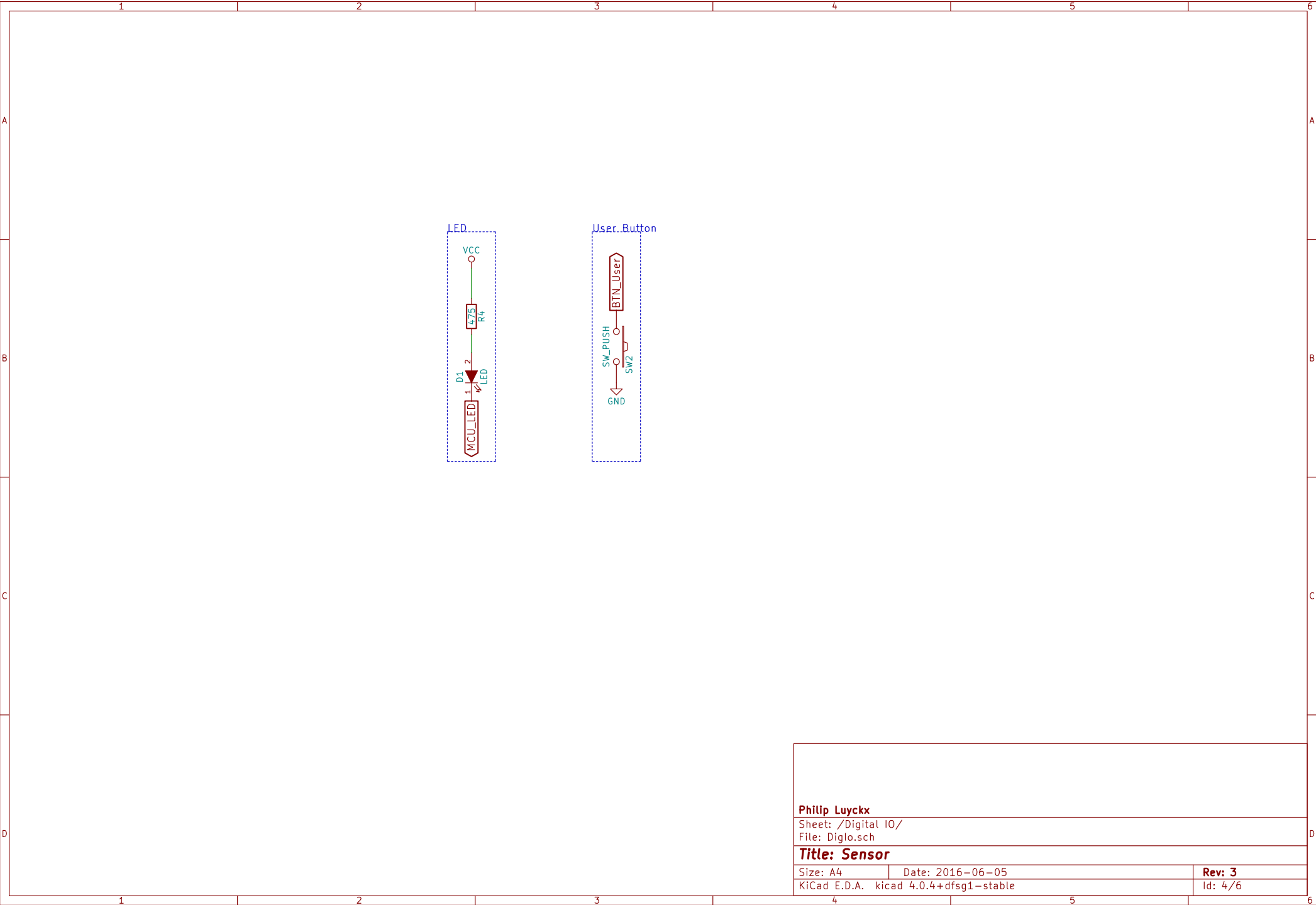
Size: A4 Date: 2016-06-05

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Sheet: /Digital IO/
File: Diglo.sch

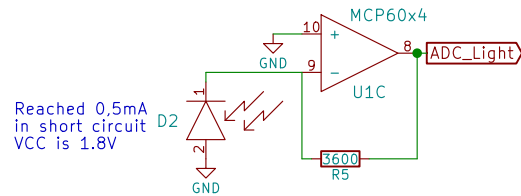
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Size: A4
KiCad E.D.A. kicad 4.0.4+dfsg1-stable

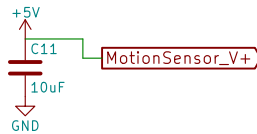
Date: 2016-06-05

Rev: 3
Id: 4/6

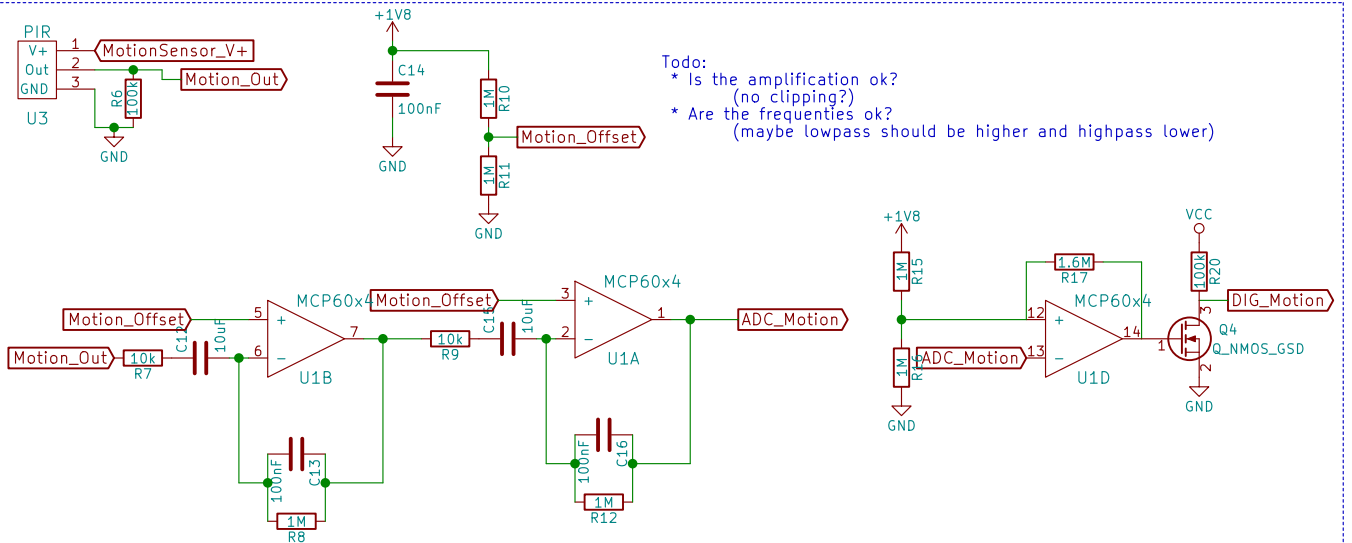
Light Sensor



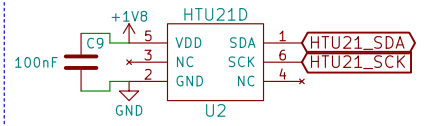
Motion Sensor Power



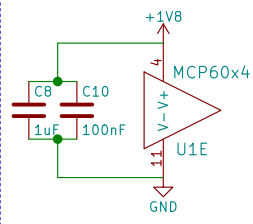
Custom Sensor



Temperature & Humidity sensor



Opamp supply



Amplify the motion output using band amplifiers
 $f_c = 1/(2\pi \cdot R \cdot C)$
 $A = R_{\text{lowpass}} / R_{\text{highpass}}$
 The highpass filter is at the input, the lowpass is in the feedback loop

Here:
 $f_{\text{lowpass}} = 1.6\text{Hz}$
 $f_{\text{highpass}} = 1.6\text{Hz}$
 $A = 100$

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Sheet: /Sensors/

File: Sensors.sch

Title: Sensor

Size: A4

Date: 2016-06-05

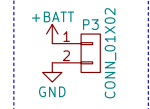
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Rev: 3

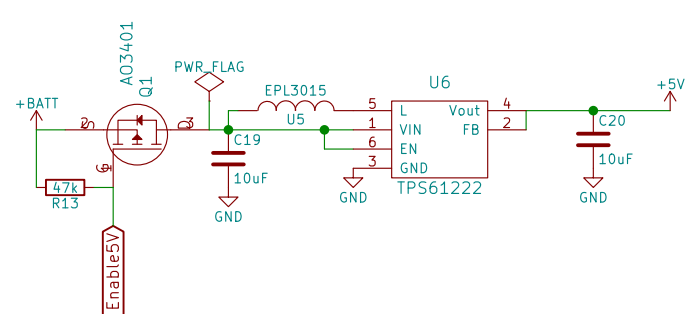
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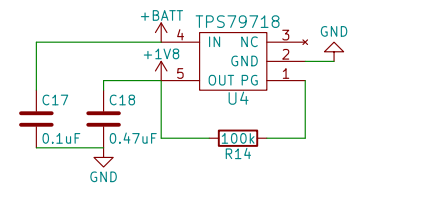
Battery Input



5V Supply



1V8 Supply



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Sheet: /Supply/

File: Supply.sch

Title: Sensor

Size: A4

Date: 2016-06-05

Rev: 3

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Id: 6/6