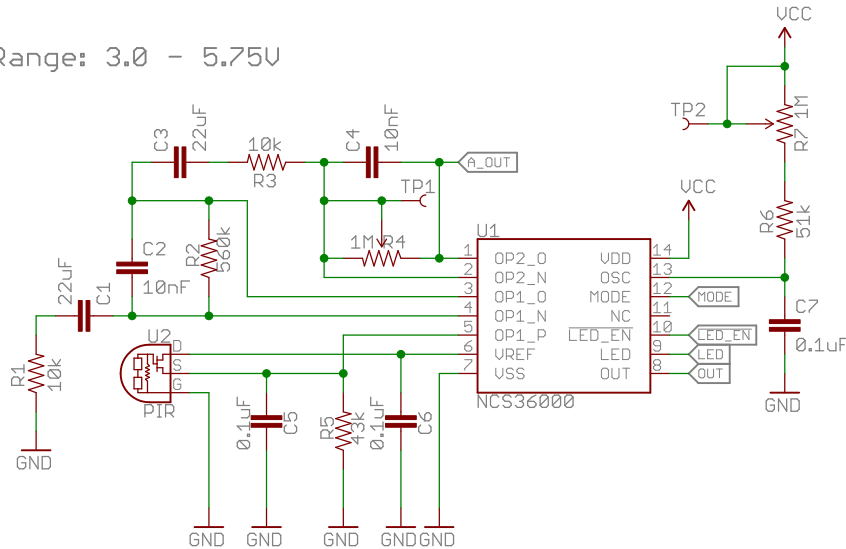


PIR and NCS36000 Amplifier

C7, R6, and R7 set the oscillator frequency of the NCS36000.
 E.g.: C7=100nF, R6+R7=220k, Osc Freq = 62.5 Hz.
 Higher resistance = higher frequency

UCC Range: 3.0 - 5.75V



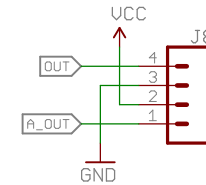
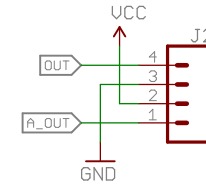
The NCS36000 features a 2-stage amplifier - gain and passband are set by passive components R1-R4 & C1-C4.
 E.g. R1=R3=10k, R2=R4=560k, C1=C3=33uF, C2=C4=10nF creates a 70dB passband gain with cutoff frequencies around 700mHz and 20Hz.
 Subbing a potentiometer in for R4 enables dynamic selection of the system's sensitivity.

Lens

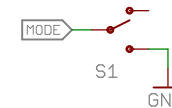
PIR Lens
 CWM 0.5 GI V1

ZCWM05GIU1 - Ceiling mount array 360° oval or wall mount array 100°, 8m range.
 Wall or ceiling mount for medium room

Connectors

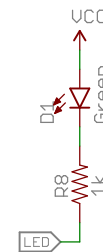


Single/Dual Pulse Mode Select

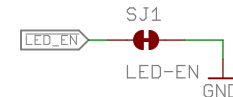


MODE selects the pulse-count mode.
 * Single-pulse (MODE=LOW): OUT will trigger if either comparator toggles and deglitch time is appropriate length.
 * Dual-pulse (MODE=Vdd): Requires two pulses - one from each comparator - within 312 clock cycles.

LED Activity Indicator



The LED_EN pin enables the LED output when motion has been detected. It's active-low. During start-up the LED will toggle regardless of LED_EN's state.



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TITLE: SparkFun-OpenPIR-NCS36000

Design by:
 Jim Lindblom

REV:
 v10

Date: 2/2/2017 3:50 PM

Sheet: 1/1

