# MLX90393 Breakout

MODES:
  I2C:
    Leave the copper-connected jumpers
    SJ1 and SJ2 as default.
    SJ1 is the LSB of the address.

  SPI 4-WIRE:
    Jumpers SJ2 can be opened to
    remove pull-ups on the SPI lines.
    SJ1 must be open for SPI operation.

Magnetometer Circuitry

CS Controls I2C/SPI
Closed (Default): I2C
Open: SPI

PU pulls up the SCK and SDA lines
for I2C operation

3.3V   3.3V

CS

3.3V

R1 10k   R2 10k

3.3V

U1

15 VDD   SENB/CS 2
8   VDDIO   SCL/SCLK 3
                 SDA/MOSI 5
                 MISO   6

                 INT   1
                 INT/TRIG 7

                 A0   12
                 A1   11

13 GND

MLX90393_MAGNETOMETER

SCL
SDA
MISO
INT
TRIG
A0
A1

GND

3.3V   3.3V

C4   C1
0.1uF   0.1uF
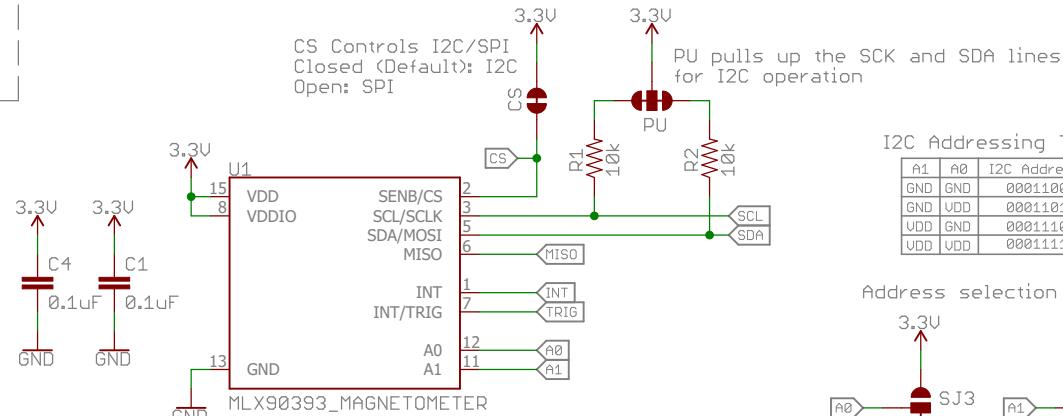
GND   GND

I2C Addressing Table

A1	A0	I2C Address
GND	GND	0001100
GND	VDD	0001101
VDD	GND	0001110
VDD	VDD	0001111

Address selection jumpers

3.3V   3.3V

A0   SJ3   A1   SJ4

GND   GND
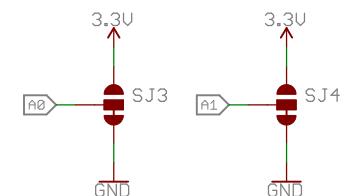
Default 7-bit I2C Adr: 0x0C

User Ports

VCC must be 2.2-3.6V

3.3V

J1

TRIG 6
INT   5
SCL   4
SDA   3
      2
      1

GND

I2C Port

3.3V

J2

CS   6
SDA   5
MISO 4
SCL   3
      2
      1

GND

SPI Port

SPARK X
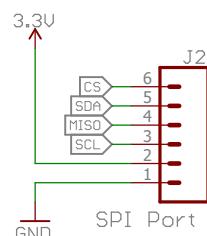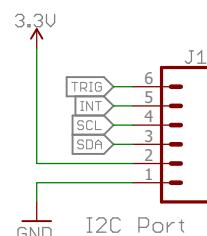
open hardware

TITLE: MLX90393_Magnetometer_Breakout

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