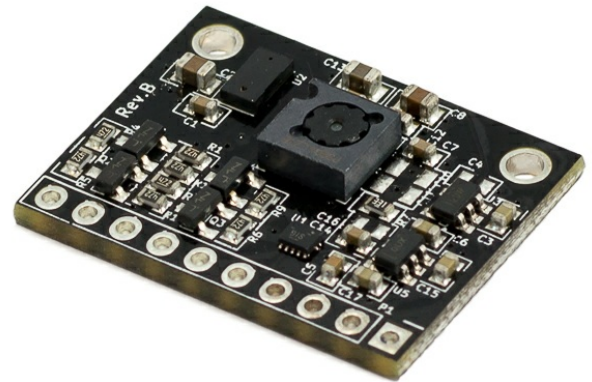




Flow breakout board

SKU: 114991252

The Flow breakout board is used for motion tracking and can easily be connected to any robotics project or other design.



1. Introduction

The motion of a surface, usually the ground, is measured and is reported as delta X, delta Y by the optical flow sensor. The Z absolute distance is measured by the Time of Flight ranging sensor. It comes with an Arduino library to easily read the movement data and has a large voltage range for IO and power supply.

The Flow breakout features the VL53L0x ToF sensor and the PMW3901 optical flow sensor.

2. Features

- Fast, accurate distance ranging
- Measures absolute range up to 2m
- Measures movement in X/Y using optical sensor
- Power supply and IO 3V - 5V compatible
- Arduino library for easy usage
- Minimum range for motion tracking is 80mm

3. Electrical specification

- VL53L0x ToF sensor (I2C)
- PMW3901 optical flow sensor (SPI)
- VCC: 3V - 5V
- Compatible with 3 to 5V system (power and IO)
- Optical flow requires an SPI port
- ToF ranger requires an I2C port

4. Interface specification

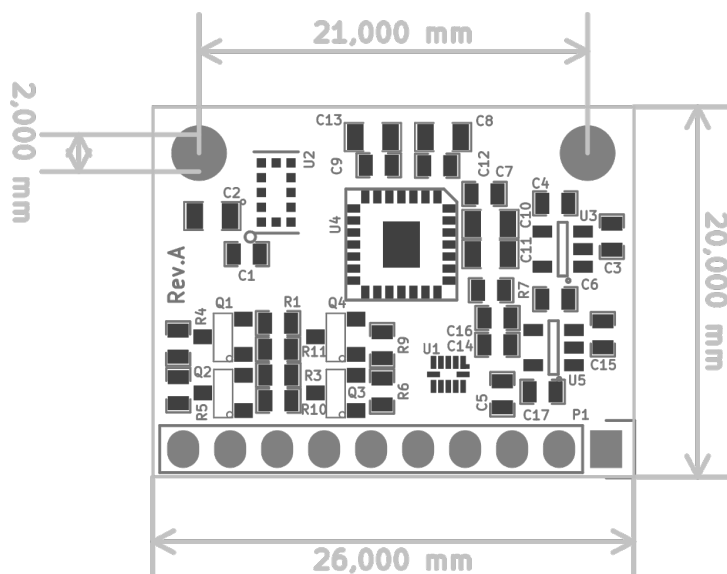
Pin	Bus	Signal
1	Power	GND
2	Power	3-5V
3	SPI	CS
4	SPI	MISO
5	SPI	CLK
6	SPI	MOSI
7	-	Motion IRQ

Pin	Bus	Signal
8	-	Reset (active low)
9	I2C	SCL
10	I2C	SDA

5. Mechanical specifications

- Weight: 2.7g
- Size (WxHxD): 20x26x4mm
- Two M2 mounting holes

6. Mechanical drawing



7. Package contents

- 1 x Flow breakout
- 1 x 10 pins male header. Note! Due to a production problem some packages only contain a 4 pins male header.

8. Errata

9. Hardware revisions

Revision	Comment
B	Initial release

10. History

Version	Comment	Date
1	Initial release	2020-04-14