LIDAR-Lite Laser Rangefinder

Produktkode: 337
Tilgjengelighet: Opp til 1 mnd leveringstid
Send SMS etter pris: 91166668

Short Description
LIDAR-Lite Laser Rangefinder (PulsedLight) V1 måler avstander opp til 40 meter.

Beskrivelse
Manual

Arduino skisse

Description

- Fast, accurate and powerful laser based measurement solution
- Compact 51mm x 30mm x 39mm module with 40m measuring range
- Great for drones, robotics and other demanding applications
- Transmit Power (laser): 1.5Watts peak @ 3amps drive
- Acquisition time: < 0.02 sec

The **LIDAR-Lite Laser Rangefinder** by PulsedLight is an essential, powerful, scalable and economical laser based measurement solution supporting a wide variety of applications (ex. drones, general robotics, industrial sensing and more). Measures distance, velocity and signal strength of cooperative and non cooperative targets at distances from zero to more than 40 meters. Offering the highest performance available in a single beam ranging sensor in its class.

Specifications

Performance

- Range: 0-20m LED emitter
- Range: 0-60m Laser emitter
- Accuracy: +/- 0.025m
- Power: 5VDC, <100ma
- Rep rate: 1-100Hz
- Interface: I2C or PWM

Configuration

- Laser/PIN diode 14mm optics (class 1 laser product)

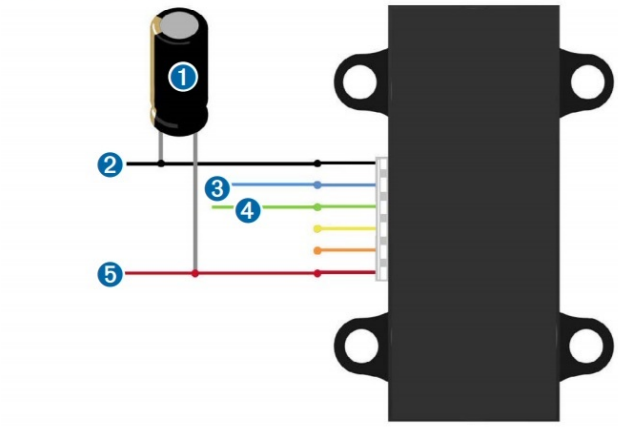
Laser sensor PCB

- NEP (PIN detector): 12nW rms, 1.5pF detector capacitance, 1mm virtual detector size
- Min detectable signal: 1nW - 256 integrated bursts (maximum integration time)
- Transmit power (laser): 1.5Watts peak 14mm @ 3amps drive, 75um single stripe laser junction
- Transmit power (LED): 200mW within +/- 3 degree beam @ 1amp

Info

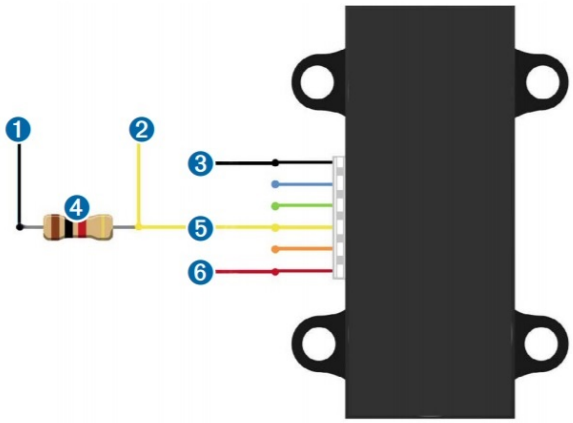
https://learn.sparkfun.com/tutorials/lidar-lite-v3-hookup-guide/all

Standard I2C Wiring

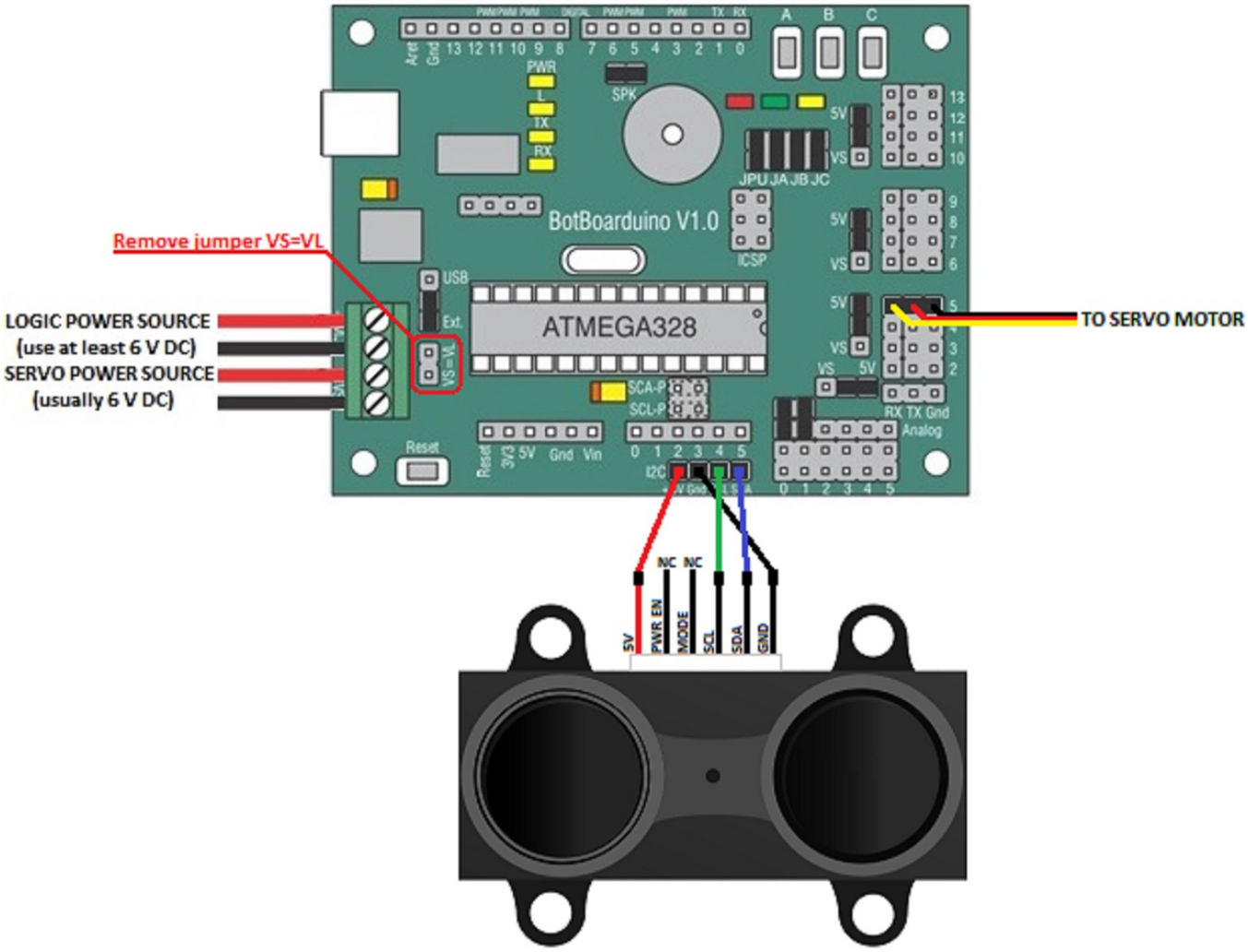


Item	Description	Notes
1	680µF electrolytic capacitor	You must observe the correct polarity when installing the capacitor.
2	Power ground (-) connection	Black wire
3	I2C SDA connection	Blue wire
4	I2C SCA connection	Green wire
5	5 Vdc power (+) connection	Red wire The sensor operates at 4.75 through 5.5 Vdc, with a max. of 6 Vdc.

PWM Wiring

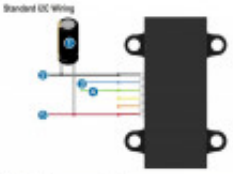


Item	Description	Notes
1	Trigger pin on microcontroller	Connect the other side of the resistor to the trigger pin on your microcontroller.
2	Monitor pin on microcontroller	Connect one side of the resistor to the mode-control connection on the device, and to a monitoring pin on your microcontroller.
3	Power ground (-) connection	Black Wire
4	~~1kΩ~~ resistor **470 Ohm**	
5	Mode-control connection	Yellow wire
6	5 Vdc power (+) connection	Red wire The sensor operates at 4.75 through 5.5 Vdc, with a max. of 6 Vdc.



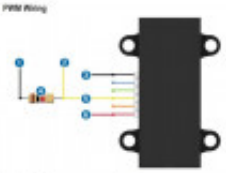
Product Gallery

Standard I2C Wiring



Item	Description	Notes
1	680µF electrolytic capacitor	You must observe the correct polarity when installing the capacitor.
2	Power ground (–) connection	Black wire
3	I2C SDA connection	Blue wire
4	I2C SCL connection	Green wire
5	5 Vdc power (+) connection	Red wire The sensor operates at 4.75 through 5.5 Vdc, with a max. of 5 Vdc.

PWM Wiring



Item	Description	Notes
1	Trigger pin on microcontroller	Connect the other side of the resistor to the trigger pin on your microcontroller.
2	Remote pin on microcontroller	Connect one side of the resistor to the Vadu control connection on the device, and to a monitoring pin on your microcontroller.
3	Power ground (–) connection	Black Wire
4	680µF capacitor 470 Ohm	
5	Vadu control connection	Yellow wire
6	5 Vdc power (+) connection	Red wire The sensor operates at 4.75 through 5.5 Vdc, with a max. of 5 Vdc.