MAKER-OBJECT
Simplifying Object Sensor for Beginner
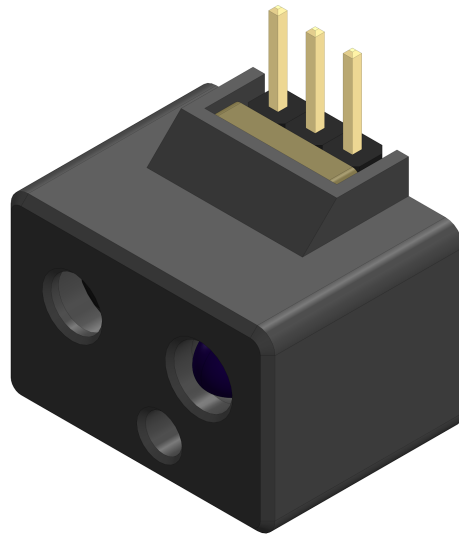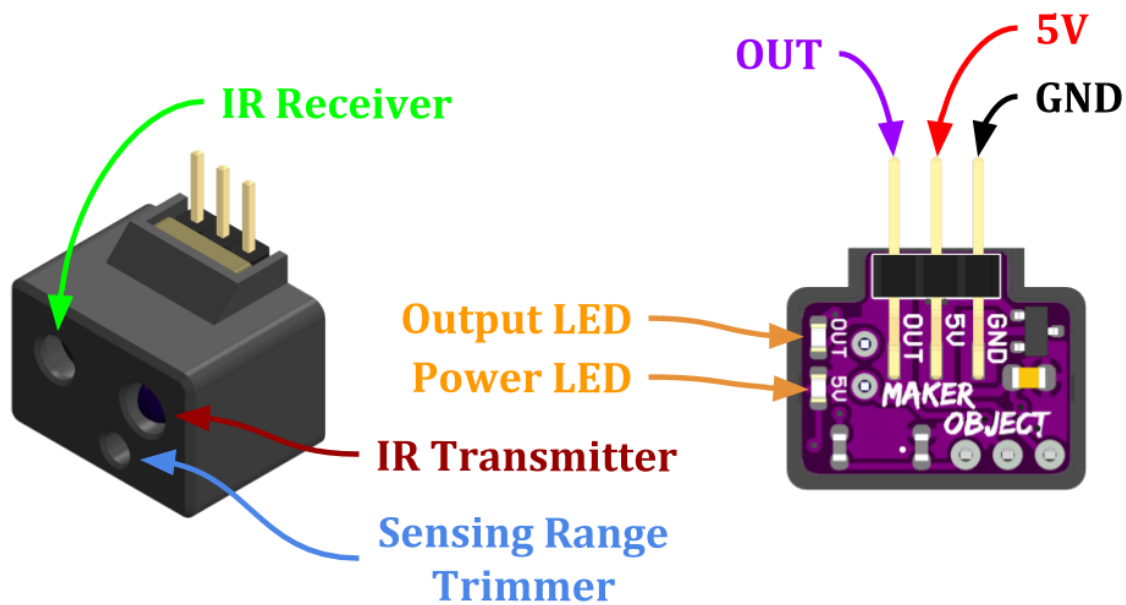
Datasheet

Rev 1.0
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# 1. BOARD LAYOUT & FUNCTION

Function	Description
IR Transmitter	Infrared LED that transmits the modulated infrared light.
IR Receiver	Infrared receiver that receives the reflected infrared light from the object. This receiver has a built-in bandpass filter of 38kHz.
Sensing Range Trimmer	Adjust the object detection range.
Power LED	Turn on when the sensor is power up.
Output LED	Turn on when object is detected.
Connector	Connector: ● 5V : Power input for the Maker Object. ● GND : Ground. ● OUT : NPN output with internal pull up. Output LOW when object is detected (Active Low). The power input has reversed polarity protection.

2. SPECIFICATIONS

No	Parameters		Min	Max	Unit
1	VCC Voltage		4.5	5.5	V
2	Output Voltage (NPN Output with Internal Pull Up)	Object Detected	0	0.8	V
		No Object Detected	VCC - 0.5	VCC	V
3	Sensing Distance (Adjustable)	White Surface (A4 Size)	40	140	cm
		Black Surface (A4 Size)	15	60	cm

3. DIMENSION
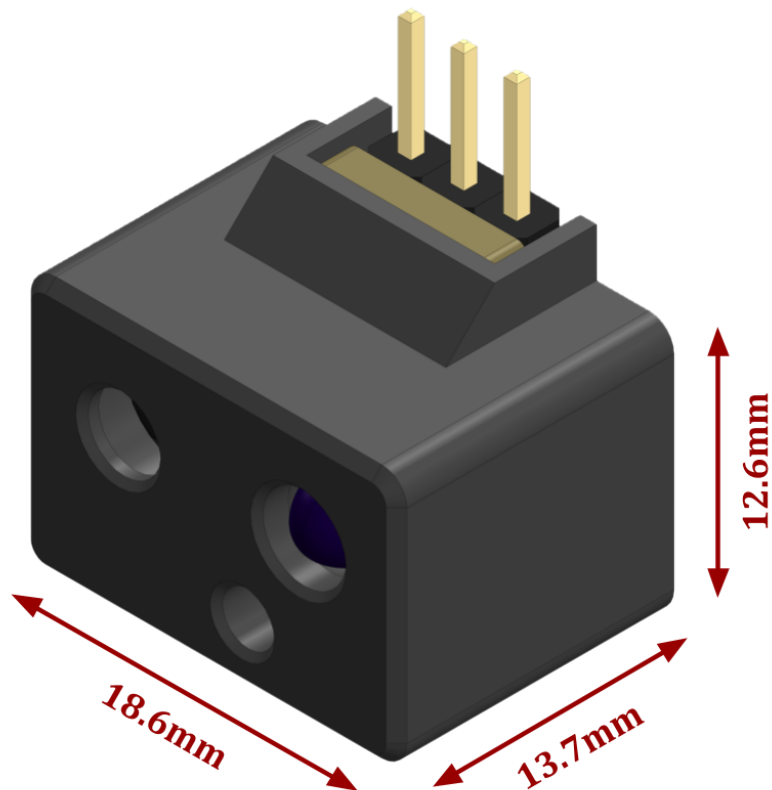
4. ADJUSTING SENSING RANGE

The sensing distance of the Maker Object can be adjusted using a small Phillips head screwdriver via the small opening at the front of the sensor.
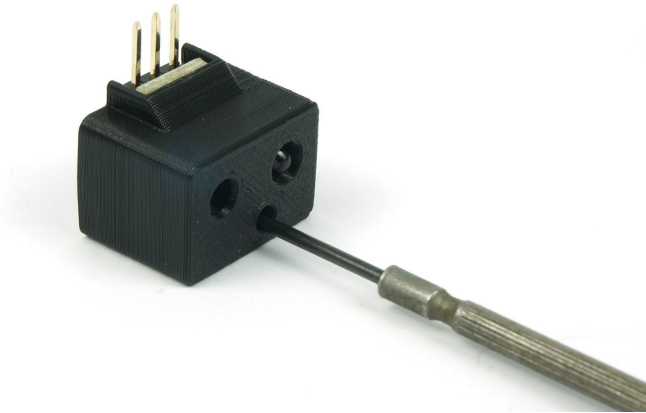
- ***Maximum Distance*** - To set the range to maximum, power on the sensor and turn the trimmer clockwise until the output LED turn off. Turn back counter-clockwise slowly until the LED just turn on. This will be the maximum sensing distance for the sensor.

- ***Minimum Distance*** - To set the range to minimum, power on the sensor and turn the trimmer counter-clockwise until the output LED turn off. Turn back clockwise slowly until the LED just turn on. This will be the minimum sensing distance for the sensor.

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