

IR OBJECT DETECTOR (100MM) – BM007

OPEN SOURCE HARDWARE MODULE



hardware made easy

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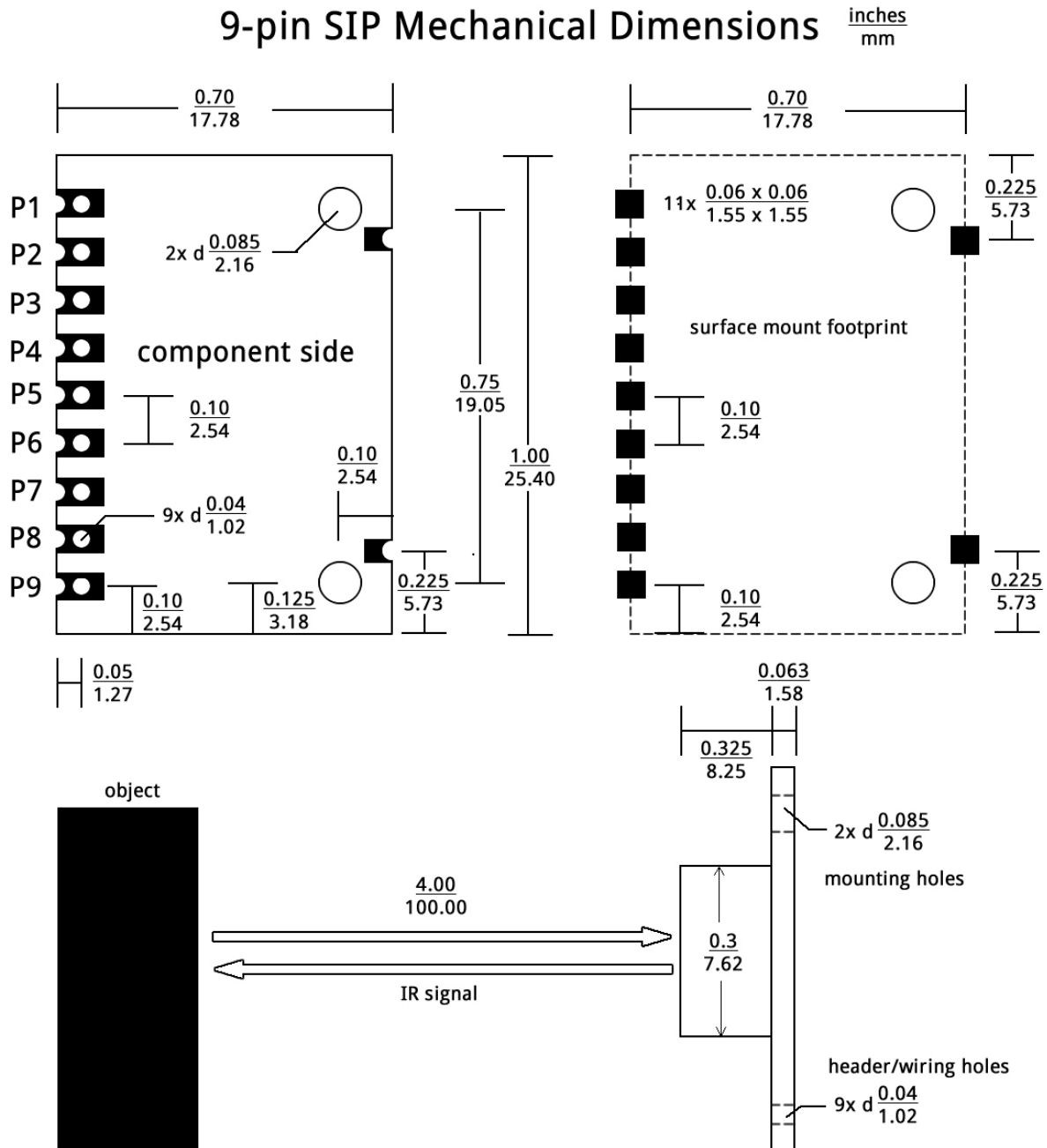
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Product Description:

This breakout board carries a Sharp GP2Y0D810Z0F IR based object detector. It may be used to detect solid objects within 100mm (4") of the sensor. If an object is detected an output pin is grounded, and an LED indicator is lit.

- 100mm detection
- EN pin can be used to turn off the sensor
- LED indicator lights when an object is detected

Dimensions:**9-pin SIP Mechanical Dimensions**

Specifications:

Characteristic	Min	Typ	Max	Unit	Notes
Operating voltage	2.7		6.2	V	VIN
Operating current		13		mA	
Power up to object detection time		10		mS	
Operating temperature	-10		+60	°C	

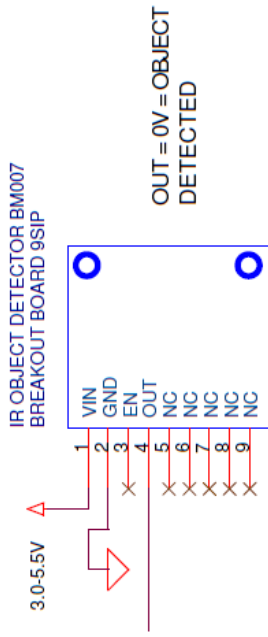
Pin Functions and Notes

#	Name	Maximum Voltage	Notes
1	VIN	6.2V	Power input: Voltage supply for module.
2	GND	0V	Ground return for the power supply
3	EN	VIN	Logic input: enables object detector
4	OUT	NA	Logic output: outputs a logic low when an object is detected
5	NC	NA	not connected
6	NC	NA	not connected
7	NC	NA	not connected
8	NC	NA	not connected
9	NC	NA	not connected

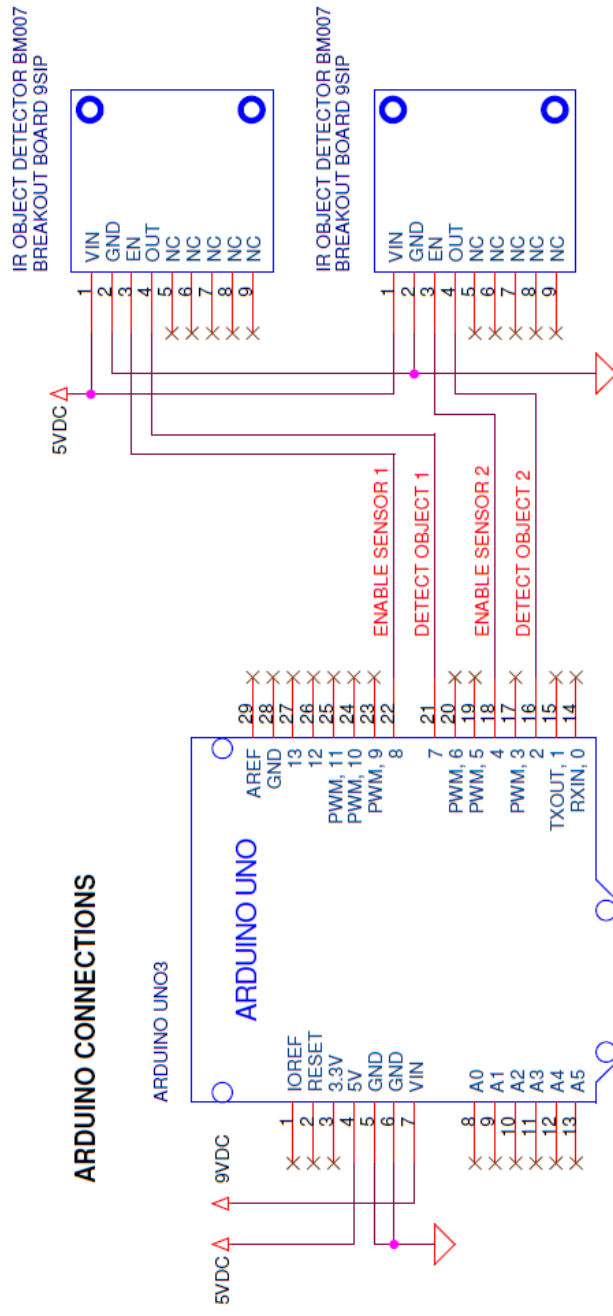
User Notes/Tips

- For additional information on the GP2Y0D810Z0F IR detector visit Sharp's web site and review the datasheet.
- Visit www.solutions-cubed.com for application notes related to this module.
- When exposed to direct intense light such as sunlight or light from a tungsten lamp the distance of object detection may not be exact.
- Distance detection to a mirrored object may not be exact.
- If attempting to detect an object with a boundary line of different material or color the sensor should be aligned parallel to the boundary line. For example, if you have a half-white / half-black object the boundary line should be parallel to the long side of the detector.

BASIC CONNECTIONS 5V SYSTEM



ARDUINO CONNECTIONS



DUAL OBJECT DETECTORS. ANGLE SENSORS FOR LARGER COVERAGE AREA.