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Infrared Sensor Kit (#28019)

Using the S.S.I.R Sensor

This documentation shows how to use the Parallax S.S.I.R board with the Parallax Basic Stamp[®] single-board computer.

Packing List

Verify that your Infrared Sensor Kit package is complete in accordance with the table below. For a selection of additional sensors, visit our Component Shop at www.parallax.com. The contents of the Infrared Sensor Kit package include:

- Documentation
- (1) SSIR Infrared Sensor
- (2) 4-40 Machine Screws, 3/8"
- (2) 4-40 Nut, Zinc Plated
- (1) 90 Degree Mounting Bracket
- (1) 10" Servo Extension Cable
- Source code on disk or CD-ROM

Description

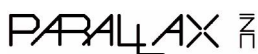
The S.S.I.R board is an infrared detection unit. This unit incorporates a standard IR LED with a 40 kHz IR receiver. This unit can be configured for basic object detection.

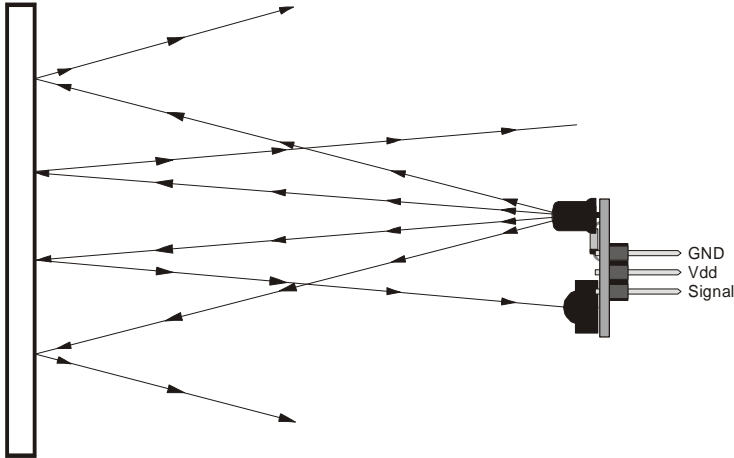
Size: Width = 15.8 mm, Length = 18.2 mm
Power Requirements: + 5vdc, 2.6 mA

Hardware Interface

The S.S.I.R requires one I/O pin from the BASIC Stamp to operate the unit. For the code on the next page you will want to use the following configuration.

Vdd = +5vdc
Gnd = Ground
Signal = I/O pin 0





Software Interface

BASIC Stamp Code will work on BS2, BS2e

```
'{$STAMP BS2}

DIR0 = 1           `Sets pin 0 to input
Holdbit VAR BIT   `Sets up a variable for the echo

Start:
  FREQOUT 0,1,38500 `sends out signal to IR LED
  Holdbit = in0     `Stores reply
  DEBUG 1,"sensor = ",DEC Holdbit,cr `displays results
GOTO Start
```

BASIC Stamp Code will work on BS2sx

```
'{$STAMP BS2sx}
'{$PBASIC 2.5}

DIR0 = 1 'Sets PIN 0 TO INPUT
Holdbit VAR Bit 'Sets up a variable FOR the echo


Start:
  FREQOUT 0,1,14320 'sends out signal TO IR LED
  Holdbit = IN0 'Stores reply
  DEBUG 1,"sensor = ",DEC Holdbit,CR 'displays results
GOTO Start
```

BASIC Stamp Code will work on BS2p

```
'{$STAMP BS2p}
'{$PBASIC 2.5}

DIR0 = 1 'Sets PIN 0 TO INPUT
Holdbit VAR Bit 'Sets up a variable FOR the echo

Start:
  FREQOUT 0,1,10610 'sends out signal TO IR LED
```

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```
Holdbit = IN0 'Stores reply
DEBUG 1,"sensor = ",DEC Holdbit,CR 'displays results
GOTO Start
```

What does SSIR stand for?

Stephen Swanson is the Technical Support Manager at Parallax that designed this infrared device.