

# PIR Breakout Boards

SEN-17372/73

## Product Overview

09/28/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

SparkFun PIR Breakout Boards are ideal for detecting motion in a small area around the sensor. These Passive Infrared (PIR) breakout boards are simple boards equipped with EKM-series (EKMC4607112K and EKMB1107112) PIR sensors from Panasonic®. The EKMB-series PIR sensors are optimized for small movements to offer motion-sensing options for battery-powered applications due to the very low standby current consumption. These PIR sensors monitor IR light coming from objects in the field of view and activate signals when motion is detected in the sensing area.



The Panasonic low-profile PIR motion sensors consist of a 10.9mm versus standard 14.4mm height, offering space savings for constrained designs. These sensors include a lens to create various detection zones, an optical filter to block non-infrared light, pyroelectric sensing elements, electromagnetic shielding, and an impedance converter. The PIR sensors offer digital output across 32 zones at a 5m detection distance with a 90° x 90° detection area. Typical applications of PIR breakout boards include home and building automation for energy saving, automated on/off lighting control, security, appliances, and IoT.

## Features

- 2.3V to 4.0V operating voltage range
- Diameters:
  - 10.4mm lens diameter
  - 10.9mm lens height
- 5m detection distance
- 90° x 90° (±45°) detection area
- [SEN-17372:](#)
  - 170µA (EKMC4607112K) standby current consumption
- [SEN-17373:](#)
  - 1µA (EKMB1107112) standby current consumption

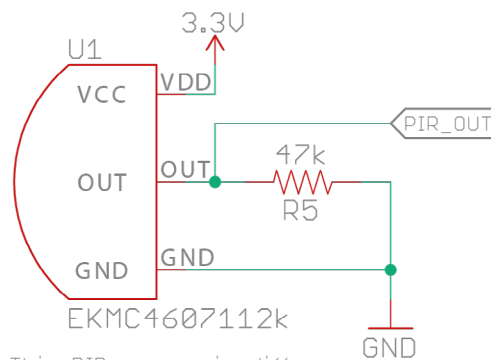
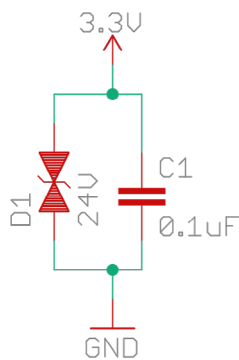
## Applications

- Home and building automation for energy saving
- Automated on/off lighting control
- Security
- Appliances
- IoT
- Creating various detection zones
- Optical filter to block non-infrared light
- Pyroelectric sensing elements
- Electromagnetic shielding to all circuitry
- Impedance converter to get an electrical signal

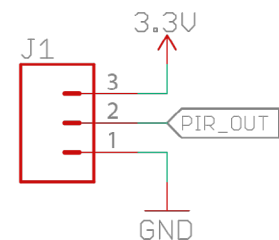
## Schematic

### PIR Breakout

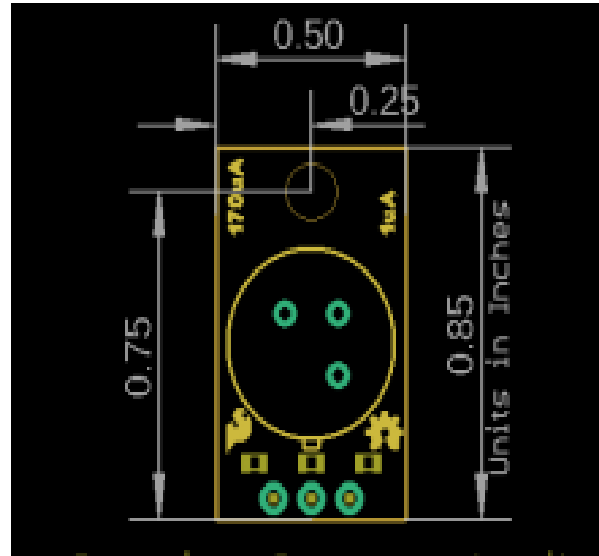
V<sub>IN</sub>: 2.3V-4.0V



This PIR sensor is different between 170 uA (IC-15368) and 1uA (IC-15370) versions



## Board Dimensions



## Board Overview - 170 $\mu$ A / 1 $\mu$ A



## Mouser Part Numbers

[View All Parts](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-pir-breakout-boards/>