Projects involving motion detection actions require a reliable way to run their code when an object movement happens. One of the most common solutions to accomplish this task is by the HC-SR501 PIR sensor with Raspberry PI.

In this tutorial, I’m going to show you how to connect and use a PIR with Raspberry PI computer boards using Python.

What is a PIR

A PIR (Passive InfraRed, sometimes named ?PID? as ?Passive Infrared Detector?) sensor is an electronic device able to measure the infrared (IR) light radiating from objects. The term passive means that the PIR module doesn’t radiate energy for detection purposes: it only detects infrared radiation emitted by or reflected from objects.

It can make your project aware if a generic movement happened in its range of view, but it can’t give more information (like, for example, who, where and how many the object moved).
You can find a more detailed description of how the PIR works from the following Glolab PIR page.

[3]

**Development Hardware**

**Source URL:** [http://www.tuxmachines.org/node/166500](http://www.tuxmachines.org/node/166500)

**Links:**