# Motion sensor:

## Overview:

We use PIR motion sensor to detect moving objects, particularly people in your home system. The motion sensor’s output will be reported to Arduino board.

## Input:

## Output

The motion sensor’s output will be reported to Arduino board via a single GPIO pin connect to pin 2. When there is no motion, sensor’s GPIO output will be LOW – mean that Arduino board pin 2 will have value LOW. When a motion is detected, sensor’s GPIO output will be HIGH – mean that Arduino board pin 2 will have value HIGH.

Output value table:

|  |  |
| --- | --- |
| LOW | No motion |
| HIGH | Have motion |

*(Hình minh họa vẽ sau)*

# Magnetic Reed Switch

## 2.1. Overview

We use Magnetic Reed Switch to detect when the door is opened or closed. The Magnetic Reed Switch’s output will be reported to Arduino board.

## 2.2. Input

## 2.3. Output

The Switch’s output will be reported to Arduino board via a single GPIO pin connect to pin 3. When the door is closed, sensor’s GPIO output will be LOW – mean that Arduino board pin 3 will have value LOW. When the door is opened, sensor’s GPIO output will be HIGH – mean that Arduino board pin 3 will have value HIGH.

Output value table:

|  |  |
| --- | --- |
| HIGH | Door closed |
| LOW | Door opened |

# Bell’s Button

## 3.1. Overview

We use button and buzzer to make a simple bell. When user press the button, button’s output will be reported to Arduino board.

## 3.2. Input

## 3.3. Output

The Button’s output will be reported to Arduino board via a single GPIO pin connect to pin 5. When the button is not pressed, sensor’s GPIO output will be LOW – mean that Arduino board pin 5 will have value LOW. When the button is pressed, sensor’s GPIO output will be HIGH – mean that Arduino board pin 5 will have value HIGH.

Output value table:

|  |  |
| --- | --- |
| LOW | Button is not pressed |
| HIGH | Button is pressed |