

Theory:-

This is a tinker cad design.

U can see a piezo buzzer and PR sensor which is passive infrared sensor and it is a digital sensor since it outputs only 2 states, either low or high.

Low is 0 volt and high is 5 volt.

The PR sensor detects change in heat.

So when a human or animal comes into the range of PR sensor then there will be change in heat due to body temprature. So it will give output.

Learning and observation:-

The PAR sensor has three pins.

The power pin to be connected to 5v of arduino,ground should be connected to ground,and the signal pin should be connected to any of the digital pin of the audino.

The programming is done in such a way that when the presence of humans is detected then the piezo buzzer will be turned on orelse it ll be turned off.

Here the signal pin of the PIR sensor is connected to digital pin 1 and the piezo buzzer is connected to dig pin 2.

The PIR sensor is connected to PT1 and the piezo buzzer is connected to PT2.

When PD 2 is at state of low,then there will be a potential difference across the ends of the circuit and the piezo buzzer would be turned on.

But when PD2 is at state of high, then there would be high at this point and 5 volt is also high.

So there wouldnt be any potential difference and the piezo buzzer will be turned off.

Precautions:-

Don't EVER hook a motor (or other inductive loads like a relay) up to it directly.

- Don't supply it with more then 9V unless you know what Thermal Resistance and Power Dissipation mean.
- Get some inline fuses if you're plugging it into unknown circuits.