Introduction:

In this project, we have designed Laser Light Security System Using Arduino with Alarm with the application of Laser Diode Module KY-008. The project idea revolves around creating a security system. Whenever any object will obstruct the LASER ray the buzzer alarm will start ringing.

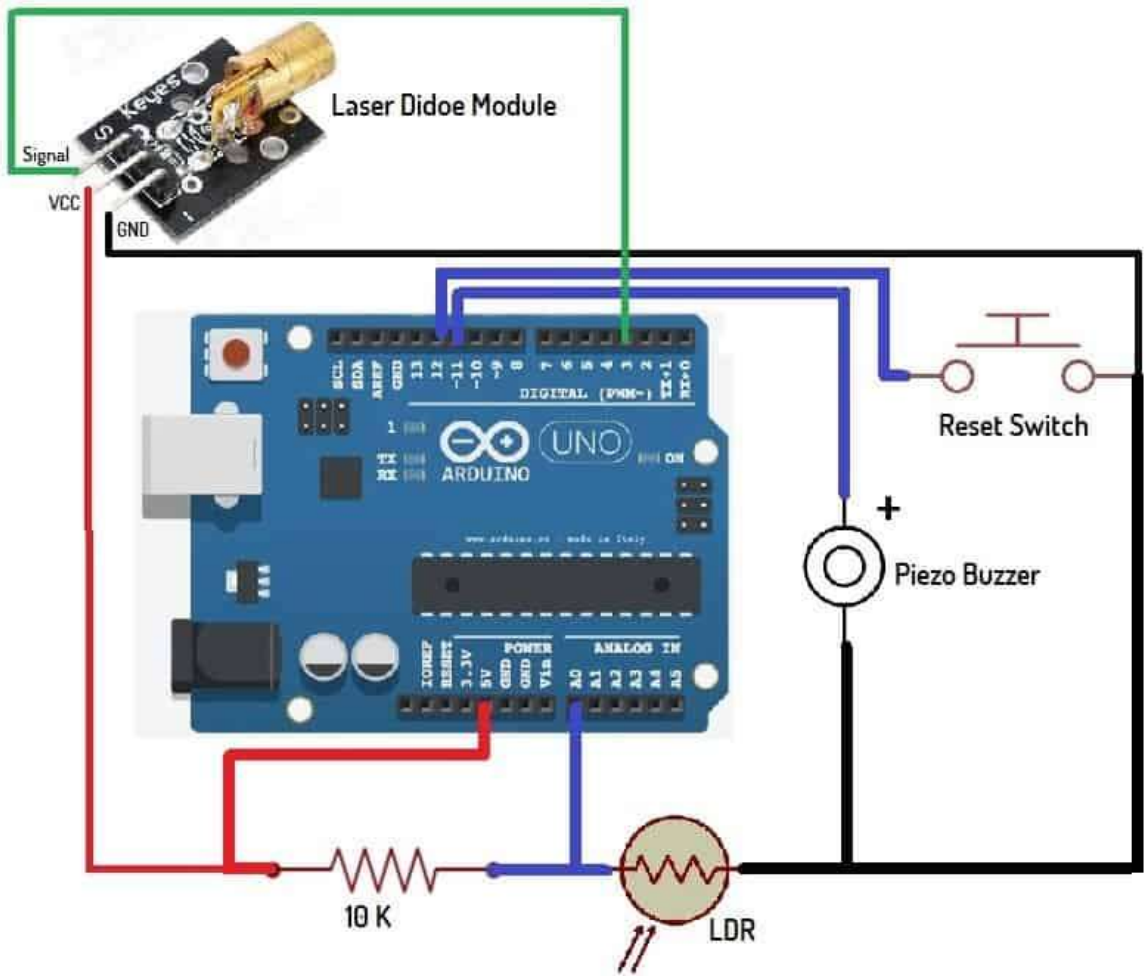
This project can be implemented anywhere, not only buildings or premises but many precious things like jewelry, diamonds, precious antique items in the museum, etc many other things are also secured using such an invisible LASER beam. Many people secure their home, office, shops, warehouses, etc with the LASER beam security system.

Laser Light Security System Using Arduino with Alarm :

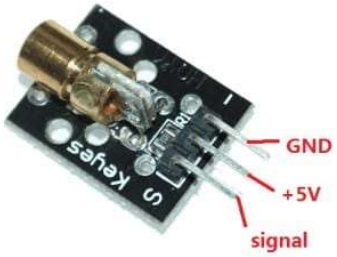
Components Required:

1. Arduino UNO Board
2. LASER Diode Module KY-008
3. Buzzer
4. LDR
5. Resistors (10k)
6. Push Button Switch
6. Bread Board
7. Connecting Wires

Circuit Diagram:



Laser Diode Module KY-008:



Laser Transmitter module KY-008 for Arduino emits a dot-shaped, red laser beam. The KY-008 Laser transmitter module consists of a 650nm red laser diode head and a resistor. Handle with caution, do not look directly into the laser head.

The specification of Laser Transmitter Module KY-008 is as follows:

Operating Voltage – 5V

Output Power – 5mW

Wavelength – 650nm

Operating Current – less than 40mA

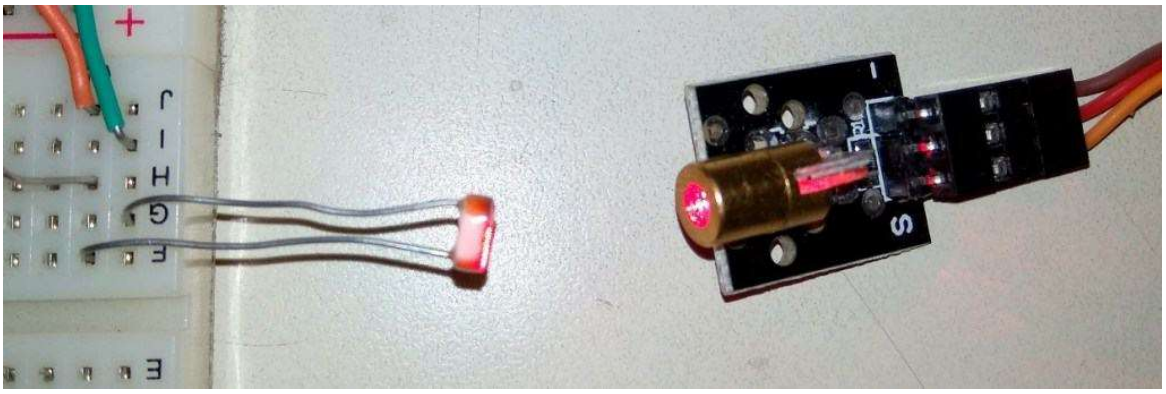
Working Temperature – -10°C ~ 40°C [14°F to 104°F]

Dimensions – 18.5mm x 15mm [0.728in x 0.591in]

Check the Laser Diode Datasheet

Working of the Laser Light Security System Using Arduino

The project basically works on the principle of interruption. If by any means the LASER light is interrupted the alarm will start unless it is reset with push-button. The laser is a concentrated light source that puts out a straight beam of light of a single color.



The LDR is sensitive to light and puts out a voltage when the laser light hits it. When the laser beam is interrupted and can’t reach LDR, its voltage output changes, and eventually the alarm will ring.