

# IoT Based Smart Street Lights Empowered by Piezoelectric Sensors

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**Abstract:** *The power generated from piezo plates is connected to the lead acid battery which is rechargeable battery and supply the energy to the street light under two conditions first is the LDR should be detect a dark condition and the ultrasonic sensor should detect any human being or vehicle passes on the roadways under these conditions with a small delay and automatic turn on the street light with full brightness and as human being or vehicles go away from that location the street lights come back to low brightness mode. During daylight the LDR detects a full bright light due to this this circuit is in the disable state and no question of turning any of the street light during day time the microcontroller is programmed for the ultrasonic sensor which sense the object or human being and triggers the output relay to enable or disable the time based operation of the street lights.*

**Keywords:** Street Light.

## REFERENCES

- [1]. Eagle files: arduino-uno-Rev3-reference design.Zip (NOTE: works with Eagle 6.0 and newer) Note: The arduino reference design can use an atmega8, 168, or 328, current models is identical ATmega328, but at ATmega8 is shown in the schematic for reference.