

Automatic Street Light Controller **(Assembled / Un- Assembled)**

Code: HB4

Description:

This project aims at designing and executing the advanced development in embedded systems for energy saving of street lights with light depending resistor. Nowadays, human has become too busy and he is unable to find time even to switch the lights wherever not necessary. This can be seen more effectively in the case of street lights. The present system is like, the street lights will be switched on in the evening before the sun sets and they are switched off the next day morning after there is sufficient light on the roads. But the actual timings for these street lights to be switched on are when there is absolute darkness. With this, the power will be wasted up to some extent. This project gives the best solution for electrical power wastage. Also the manual operation of the lighting system is completely eliminated. In our project we are using LDR, which varies according to the amount of light falling on its surface, this give an indication for us whether it is a day/night time.

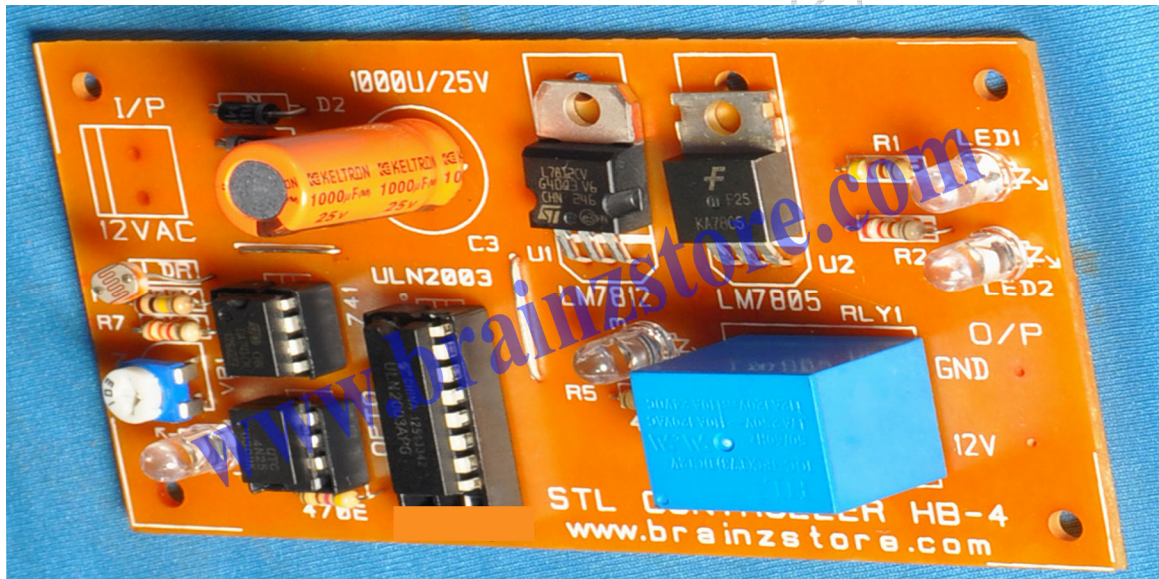
In our project we use regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac out put of secondary of 230/12V step down transformer. In the present project street lights are taken into consideration where the above discussed factors are rectified in them.. By using this as the basic principle we can design centralized intelligent system for the perfect usage of streetlights in any place (Viz Village, Town) can be developed.

This dark detector sense device can be used to turn on the light when the intensity of ambient light is too low or in other devices where is require a light sensor. For this light detector sensor circuit we need a 12V Regulated DC power supply, which is included in this PCB.

In additional with this circuit, you can purchase LED Strip MDU6 (Available in Module section) for your any Light based projects.

Dimension:

105 mm * 55 mm



Caution: * Input AC 12 V should be given via step down transformer**

Diode (D2-D5) ----- IN4001

Capacitor
C3 ----- 1000MFD/25v

Resistor:
R1 ----- 220 E
R5 = R2 = R4 ----- 470 E

I/P ----- 12V AC / DC

LED1 – LED3 ----- 5mm LED

RLY1 ----- Cube Relay (12V/7 Amps)

IC ----- 741 , ULN2003 , MCT2E opto

Reg U1 ----- 7812

Reg U2 ----- 7805

VR1 -----10K preset (for sensitivity Adjustment)

This box includes

- Assembled / Un Assembled PCB
- Required components
- Circuit Diagram and Explanation