

## **Six channel IR remote Controlled Appliances (Assembled/Unassembled)**

**Code HB2**

Connect this circuit to any of your home appliances (lamp, fan, radio, etc) to make the appliance turn on/off from a IR remote control. The circuit can be activated from up to 10 meters distance.

The 38 kHz infrared (IR) rays generated by the remote control are received by IR receiver module TSOP1738 of the circuit. Pin 1 of TSOP1738 is connected to ground, pin 2 is connected to the power supply through resistor R5 and the output is taken from pin 3. The output signal is fed to Microcontroller AT89c2051.

This circuit makes use of AT89c2051 microcontroller to decode the signal received by TSOP1738 sensor and activate (NO) / deactivate (OFF) corresponding relay (Load) via relay driver IC ULN2003.

Using this project you can able to control (ON/OFF) up to six different appliances. Remote button works as toggle mode (i.e) same button in the remote used to either switch ON or switch OFF corresponding load. Ex. When you press button 3 in the remote for first time, it will switch on 3<sup>rd</sup> load and same button 3 used to switch OFF the 3<sup>rd</sup> load, when it pressed for second time.

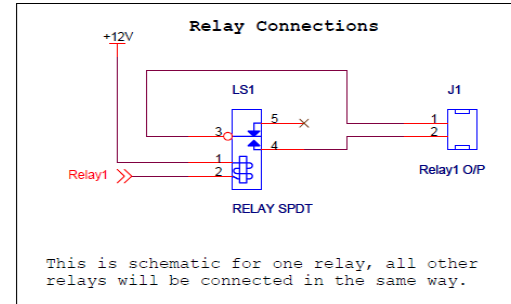
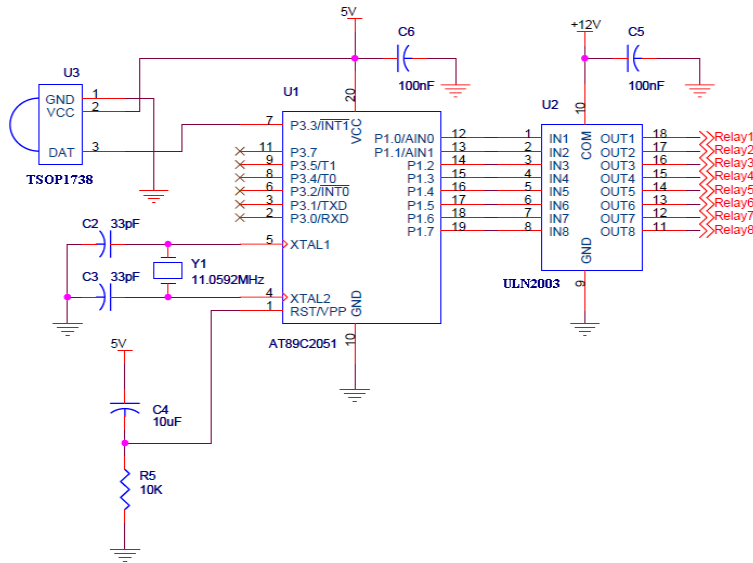
Microcontroller is programmed as follows

Buttons 3 – 8 to switch ON/OFF each corresponding load one by one

Button 9 to switch ON all the six loads at a time

Button 0 to switch OFF all the six loads at a time.

## Circuit Diagram:



This unit comes along with remote



**\*\*\*\*\* Caution Apply 12 AC via 12V Step down transformer**

**\*\*\*\*\* Caution Take special care while handling 220v AC voltage**

**Size: 9.5cm \* 12 cm**

## **APPLICATIONS**

- This system can be used in industrial applications
- This system reduces human efforts and makes life a bit easy without compromising on the efficiency of appliances.
- Using this system one can also save time.

## **ADVANTAGES**

- Portable and easy to use.
- Simple in construction.
- Easy to maintain and repair.
- Efficient and low cost design.
- Low power consumption.