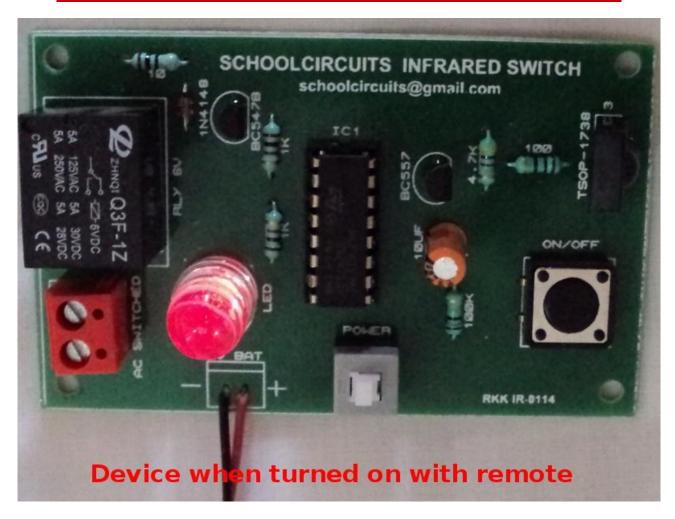
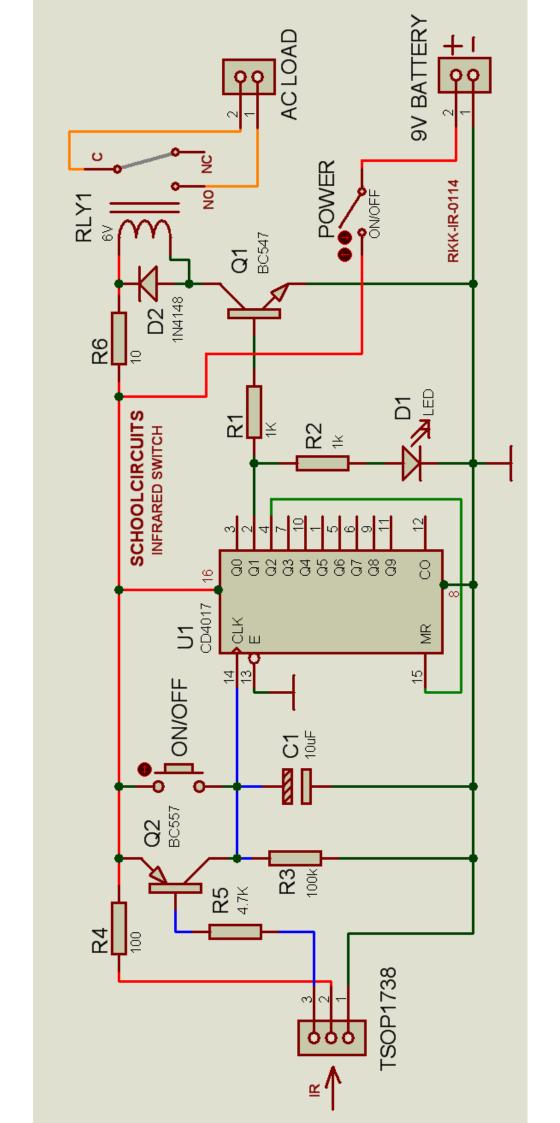
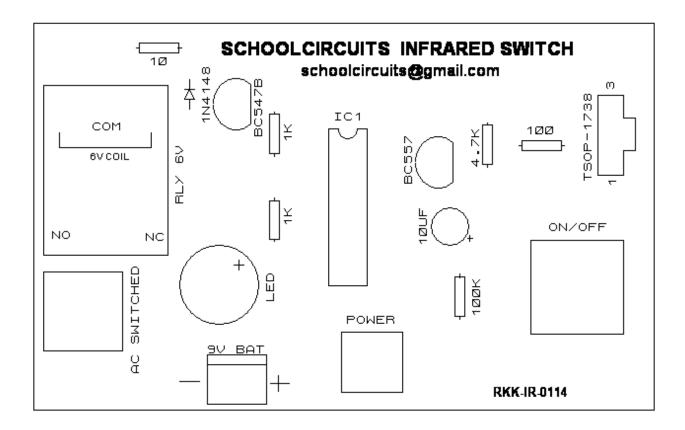
High-Quality INFRARED REMOTE CONTROLLED SWITCH







RKKIR0114 Infrared Switch kits are superior grade components provided with best quality printed circuit boards for Infrared Remote Control of electrical and electronic devices. Wired circuits and kits are carefully crafted for long life and smooth operations.

Circuit Design:

The circuit is built around Infrared Sensor TSOP-1738 which detects Infrared signals of 38Mhz used normally in home appliances like TV and DVD players. Output of TSOP-1738 is used to switch-on BC-557 PNP switching transistor. Current flowing through transistor generates pulse for clock input of CD-4017 decade counter IC which is wired here as flip-flop. For each input pulse, its output will become high one time and become low when another clock pulse is detected.

Output of IC switches on NPN switching transistor BC547B which drives the relay. The relay is capable of handling normal AC and DC loads. Use 2 pins of terminal block as switch of your appliance. Take normal home-use remote control for switching it on/off. Some IR remote models use other Infrared frequency which will not be useful but most models use 38 Mhz compatible with our circuit.

Two On/Off switches are provided on the board. First is for disconnecting battery power when the device is not in use. Another flat on/off switch is for manually turning the switch (relay) on/off in the absence of an infrared remote control.

Warning: While wiring switch for controlling AC devices, keep the device disconnected from mains power. Do not touch this circuit board also after AC power line is connected. Shocks from AC power can become fatal. Main design of this circuit board is educational use of Infrared signals.

Caution: The circuit is enabled by any button of remote, hence chances of it getting switched on by scattered sun light and electrical lights is high. We have tried to minimize it by adding a delay between signals but it can not always ensure prevention of false trigger. Hence, do not use the circuit for critical devices. Do not connect any devices which can cause problem if turned on or off without intention. It is best to keep this as educational circuit to understand infrared remote control principles.

Circuit delay: (You will have to wait for few seconds before the device can be turned on or off again. Fast switching is disabled for minimizing scattered light disturbances.)

<u>For Kit users:</u> If wired carefully observing proper polarity and using standard soldering method, there is no chance of circuit not working as each component is quality checked. For kit orders, **no replacement or refunds** are entertained as the circuit can be damaged easily while soldering by the user. If you are not in agreement of it, you must order wired and tested circuit boards for additional cost. For any return (approved by us for any reason), the cost of postage of return parcel is to be borne by the customer.