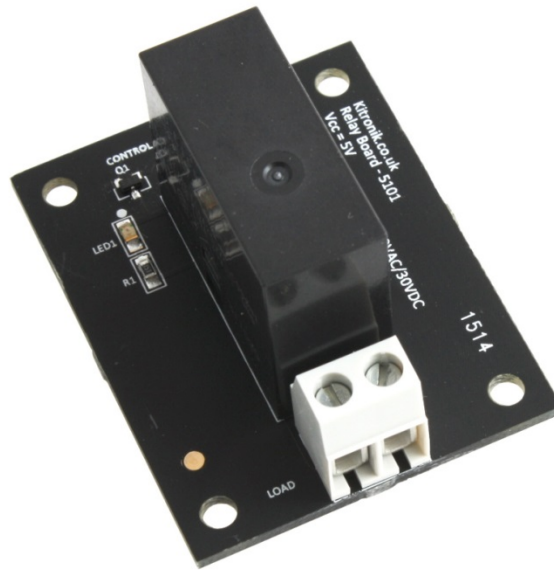


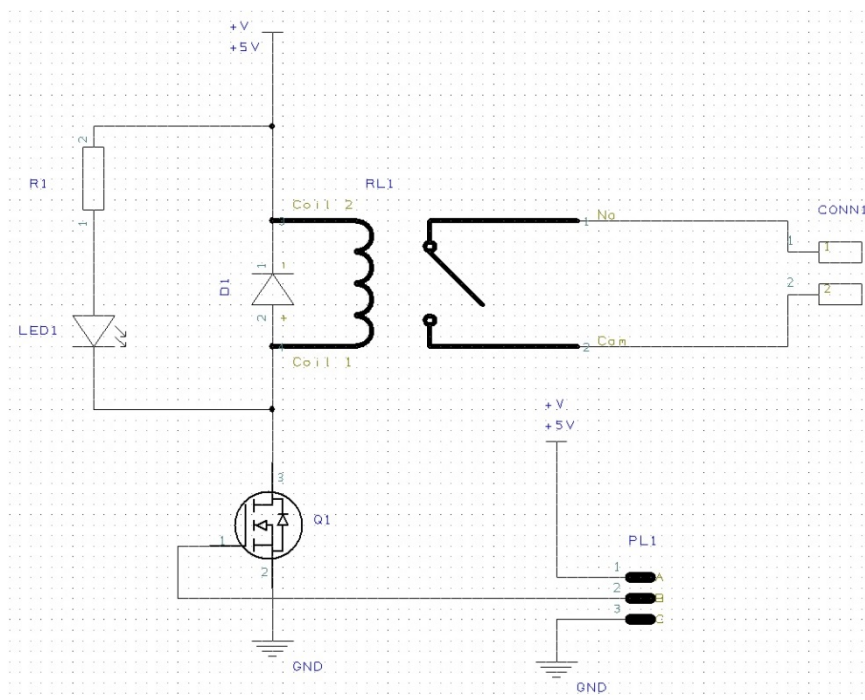
Relay Board - [5101](#)

Circuit Overview

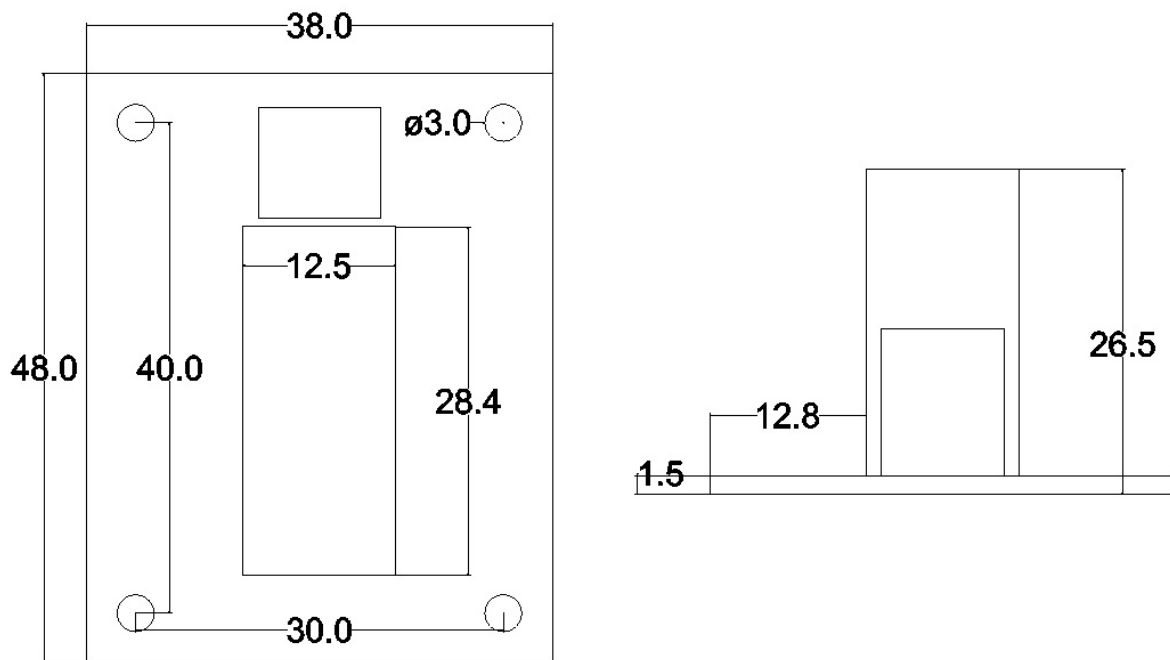
This circuit allows a low power logic-level device to operate a normally-open relay which can switch up to 16A 250VAC or 16A 30VDC. The board requires a power supply of 5V @ 80mA to function. The circuit uses a transistor to allow a low current signal, such as that generated by a microcontroller, to activate the coil and close the relay. An LED indicator is present on the board which shows when the relay is active.



Circuit Diagram



Mechanical Information



(All dimensions in mm)

Electrical Information

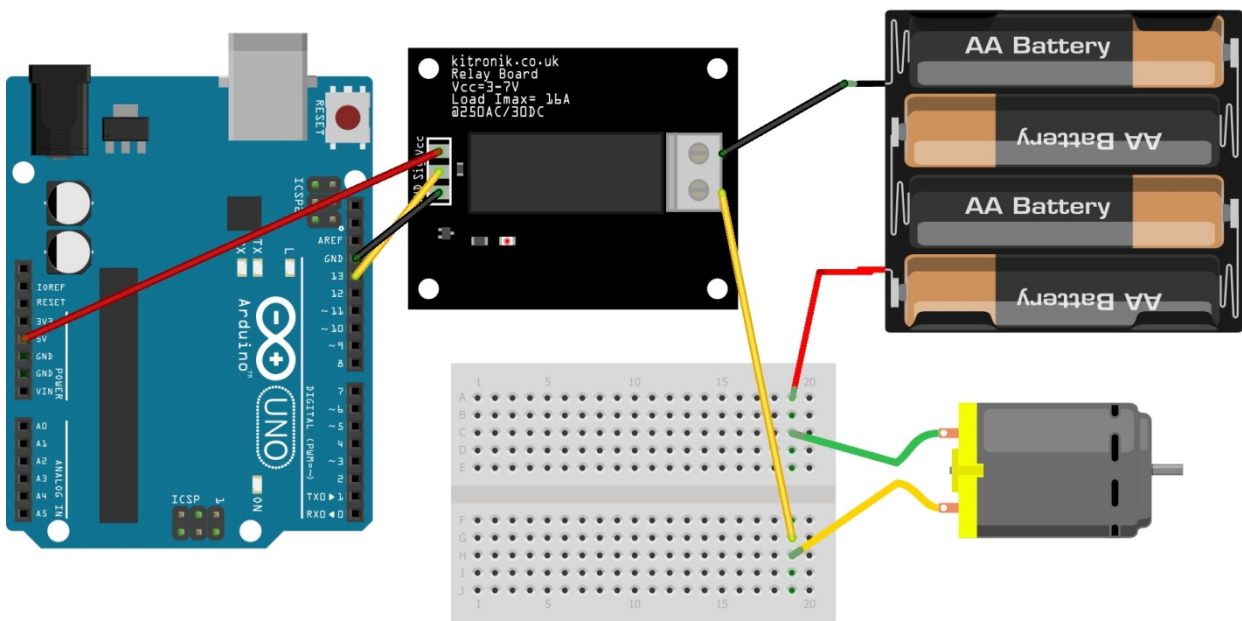
| | |
|-----------------------------|---------------------|
| Minimum Input Voltage | 3.8V |
| Nominal Input Voltage | 5V |
| Absolute Max Input Voltage | 7.2V |
| Relay Switching Point | 3.75V |
| Nominal Operating Current | 80mA |
| Nominal Operating Power | 400mW |
| Absolute Max Switching Load | 16A @ 30VDC/ 277VAC |
| SIG Threshold Voltage | 2.1V |

All values at 20°C

Pinout

| | |
|-----|----------------------------|
| Vcc | Board power supply (5V) |
| SIG | Input signal (active high) |
| GND | Common ground |

Using the Relay with an Arduino



Made with Fritzing.org

Connect the 5V pin on your Arduino to Vcc. Connect SIG to an output pin on your Arduino. Setting this pin high will trigger the coil switching the load on. Setting this pin low will release the coil and return the relay to its open position. Connect GND to the GND pin on your Arduino.

Then connect your load through the terminal block. The example above uses a motor powered by 4xAA batteries but any load within the voltage and current limit of the terminal will work.

Important Application Notes

Be careful when working with high voltages, especially as arcing may occur on switching! Attempting to switch the relay on and off very rapidly will not give reliable results.

Only use this board with mains voltages if you are suitably qualified to do so.