DRIVERS
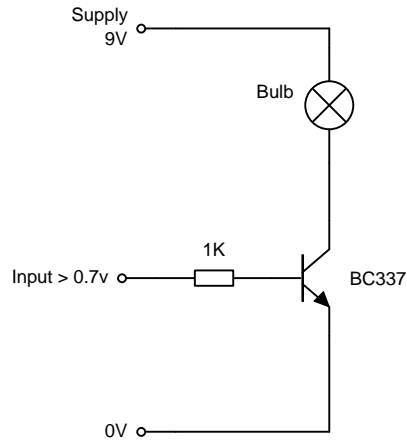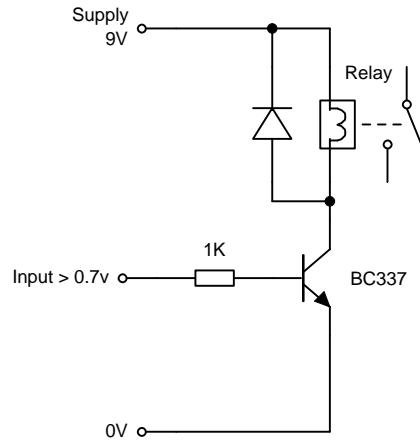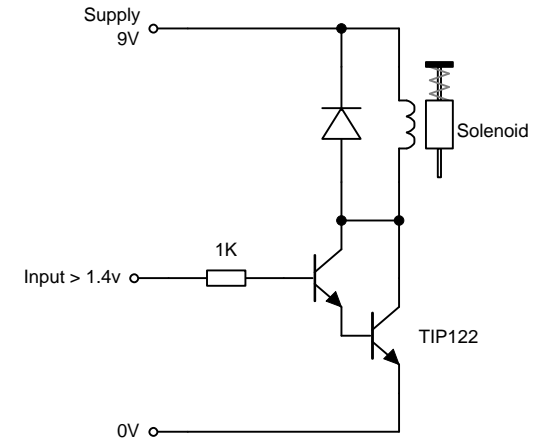
The following ar all examples of driver circuits that can be used on the outputs of logic gates for example. They provide current drive by using various types of transistors. The devices shown are suggested ones and can be changed. Remember to check that the transistor can deliver enough current by checking Ic and also use a protection diode if driving inductive loads (anything with a coil in it!).
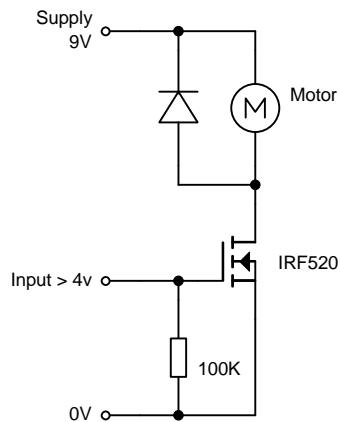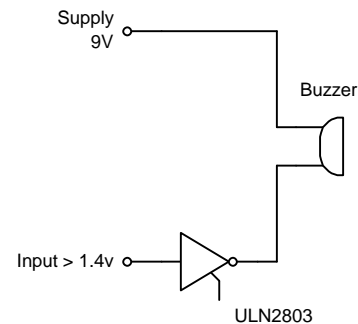
Supply 9V

Bulb

1K

Input > 0.7v

BC337

0V

Simple NPN driver
Can provide up to 400mA

Supply 9V

Relay

1K

Input > 0.7v

BC337

0V

Simple NPN driver
Note using a protection diode

Supply 9V

Solenoid

1K

Input > 1.4v

TIP122

0V

NPN Darlington driver
Can provide up to 5A

Supply 9V

Motor

Input > 4v

IRF520

100K

0V

MOSFETdriver
Can provide up to 10A

Supply 9V

Buzzer

Input > 1.4v

ULN2803

Integrated Darlington driver
Can provide up to 500mA, useful
if you need lots of drivers

Supply 9V

1K

Input < 8.3v

BC559

Bulb

0V
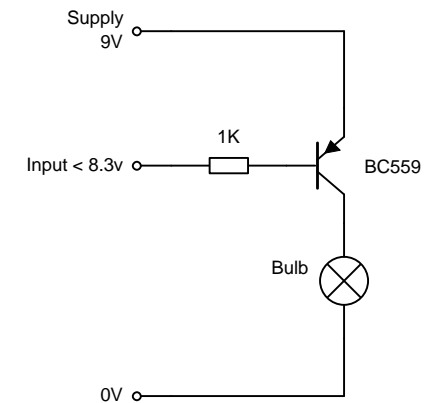
Simple PNP driver
Can provide up to 400mA.
Note switches on with low input

P Townshend