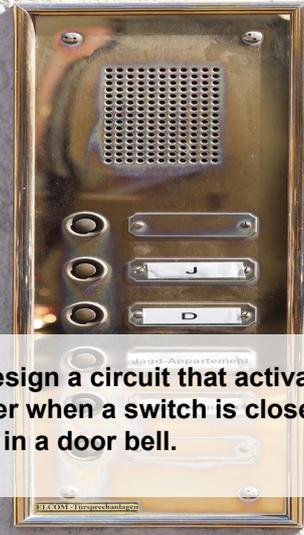


#1 Design a circuit that turns on and off a bulb as used in a torch



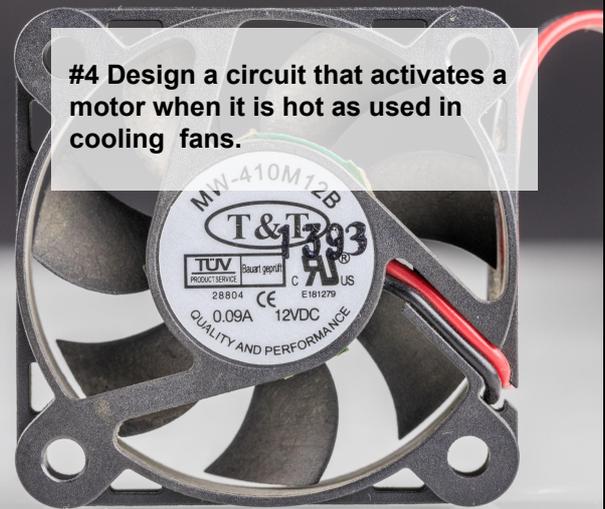
#2 Design a circuit that activates a buzzer when a switch is closed as used in a door bell.



#3 Design a circuit that activates a buzzer and a lamp at the same time when a switch is pressed as found in a child's game



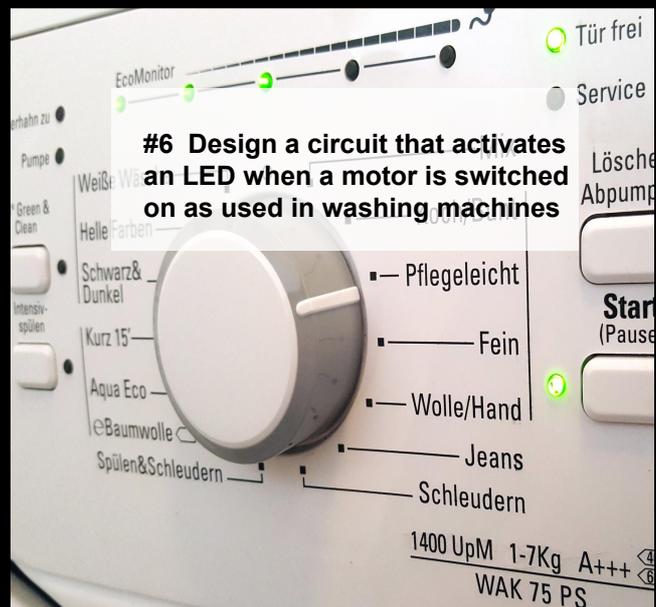
#4 Design a circuit that activates a motor when it is hot as used in cooling fans.

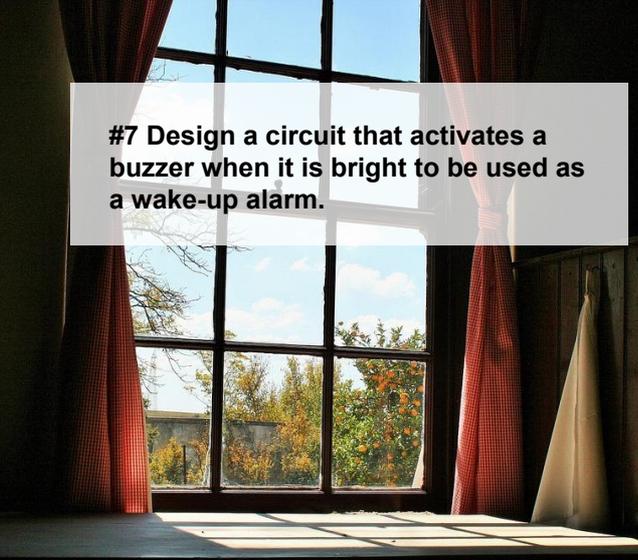


#5 Design a circuit that turns on a bulb when either of 2 switches is pressed as found in car interior lights.

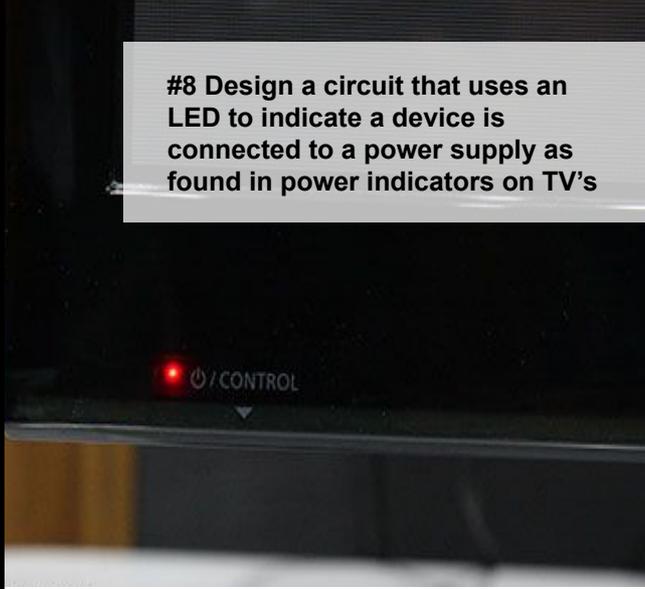


#6 Design a circuit that activates an LED when a motor is switched on as used in washing machines

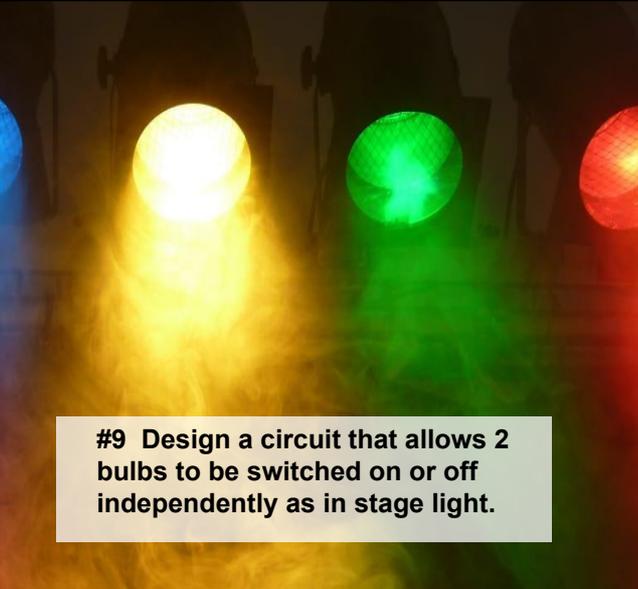




#7 Design a circuit that activates a buzzer when it is bright to be used as a wake-up alarm.



#8 Design a circuit that uses an LED to indicate a device is connected to a power supply as found in power indicators on TV's



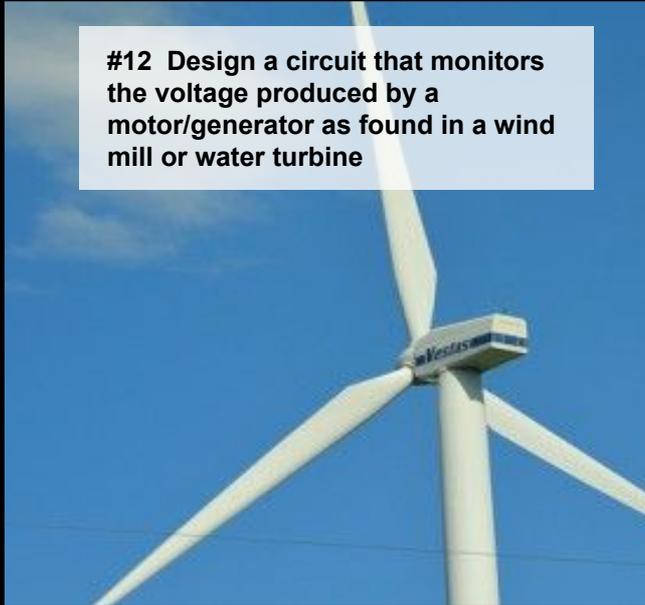
#9 Design a circuit that allows 2 bulbs to be switched on or off independently as in stage light.



#10 Design a circuit that turns on a lamp when light falls on a sensor as found in a car parking space locator



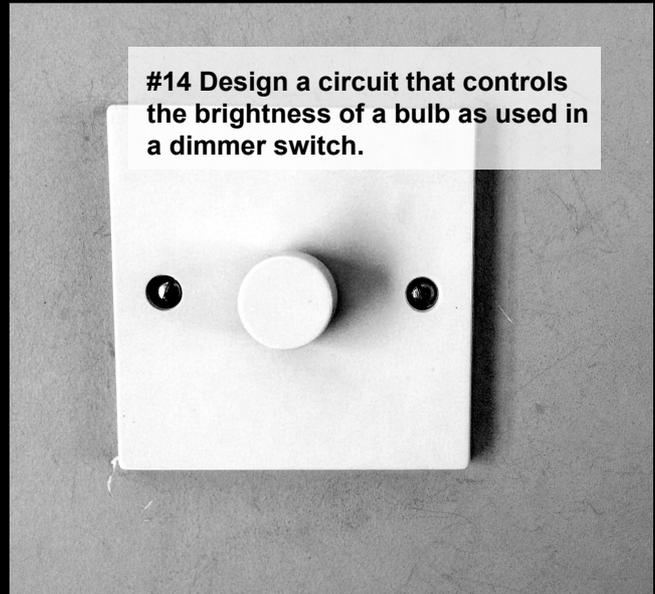
#11 Design a circuit dims the brightness of a bulb as used in a night light.



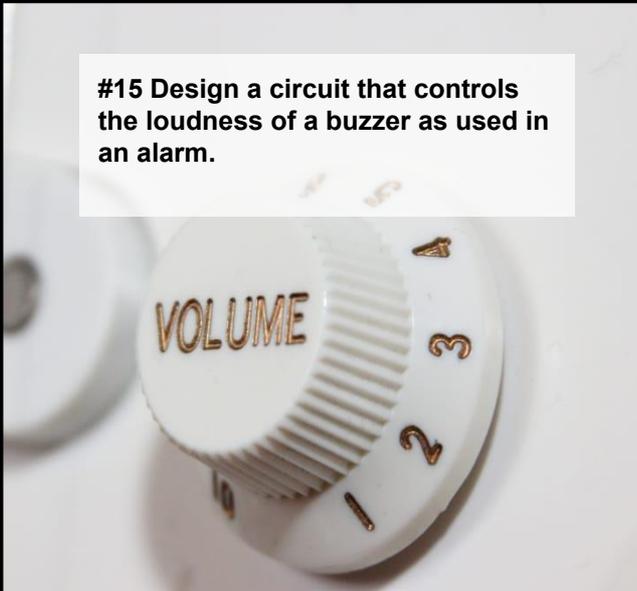
#12 Design a circuit that monitors the voltage produced by a motor/generator as found in a wind mill or water turbine



#13 Design a circuit that controls the speed of a motor as used in a fan.



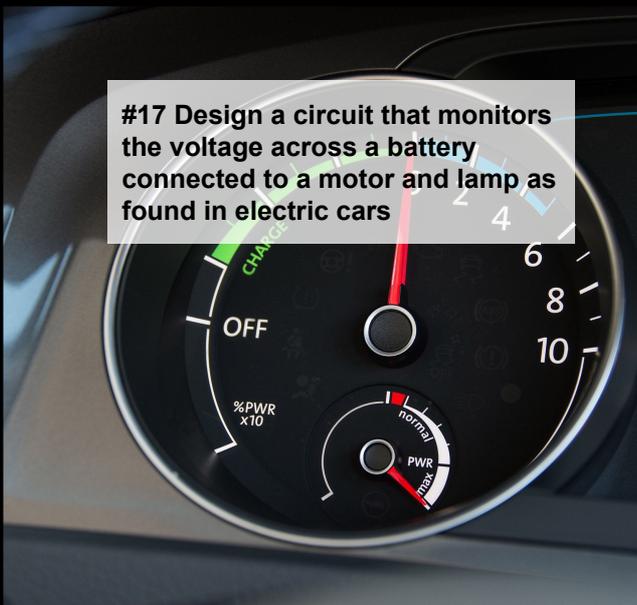
#14 Design a circuit that controls the brightness of a bulb as used in a dimmer switch.



#15 Design a circuit that controls the loudness of a buzzer as used in an alarm.



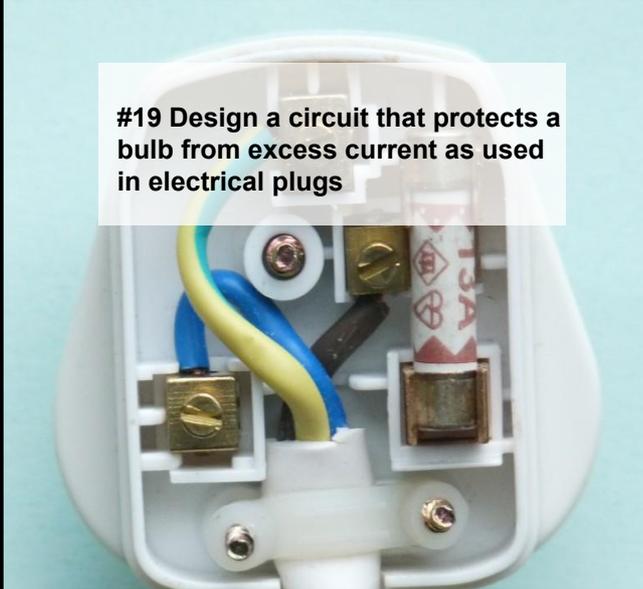
#16 Design a circuit that prevents a motor turning in the wrong direction as used in an escalator



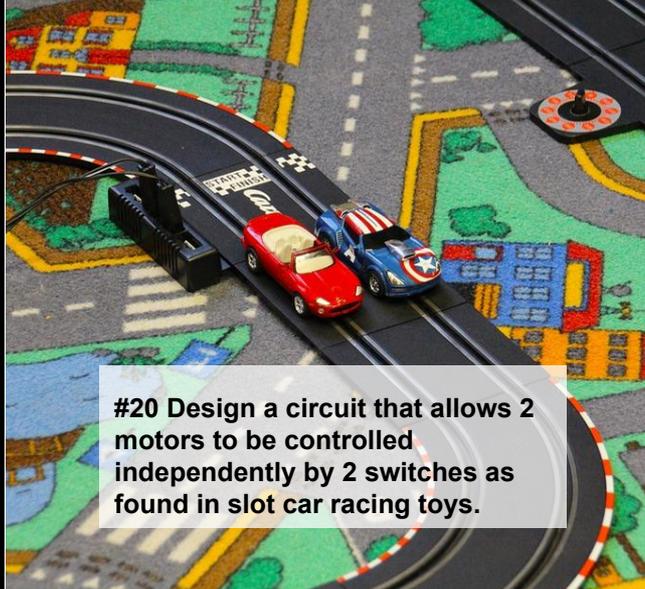
#17 Design a circuit that monitors the voltage across a battery connected to a motor and lamp as found in electric cars



#18 Design a circuit that has 2 bulbs connected in parallel as in a ceiling light



#19 Design a circuit that protects a bulb from excess current as used in electrical plugs



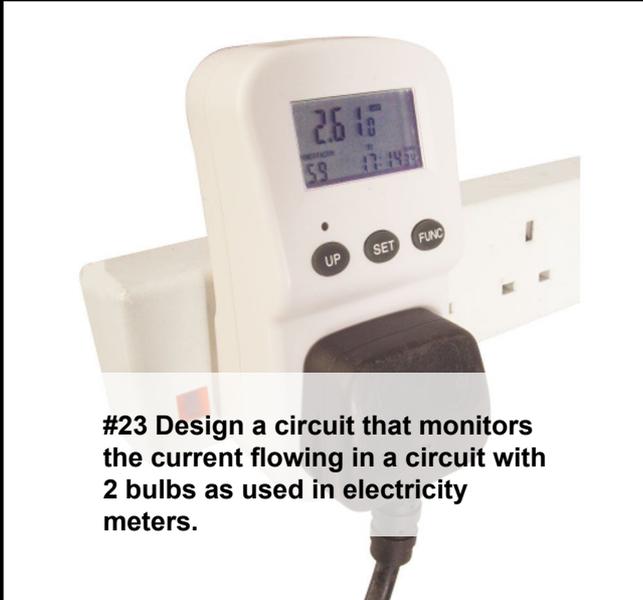
#20 Design a circuit that allows 2 motors to be controlled independently by 2 switches as found in slot car racing toys.



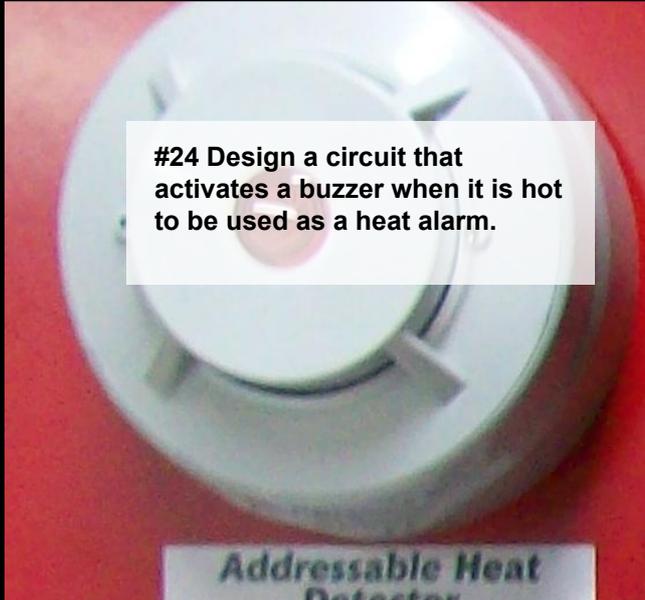
21 Design a circuit that requires 2 switches to be closed before a motor operates as a safety system in an electric lawnmower



#22 Design a circuit that monitors the voltage of a power supply as used in a car battery tester.



#23 Design a circuit that monitors the current flowing in a circuit with 2 bulbs as used in electricity meters.



#24 Design a circuit that activates a buzzer when it is hot to be used as a heat alarm.