

Multiple PICAXE interrupts

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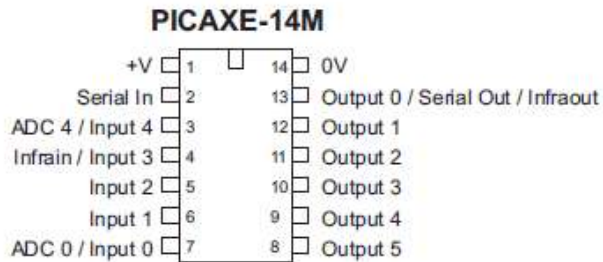


Intro: Multiple PICAXE interrupts

This Instructable tells you how to set up multiple picaxe interrupts.

You will need:

- 1 x PICAXE chip (any), I will draw a circuit diagram for a 14M
- 2 x diode
- 2 x switch
- 1 x LED
- 1 x 330R resistor
- 3 x 10K resistor
- 1 x 22K resistor
- 1 x 3.5 mm serial plug
- 1 x PICAXE programming cable + software
- breadboard/verroboard
- some wire



step 1: Make circuit to program chip

To program the chip, build the circuit below:

- Connect the serial in on the chip to a 22K resistor.
- Connect a 10K resistor to the end of this.
- Connect the joint to section "B" on the jack.
- Connect the 10K resistor to negative.
- Connect part "C" of the jack to negative.
- Connect serial out on the chip to the centre pin ("A") on the jack.
- Connect the chip to positive and negative.

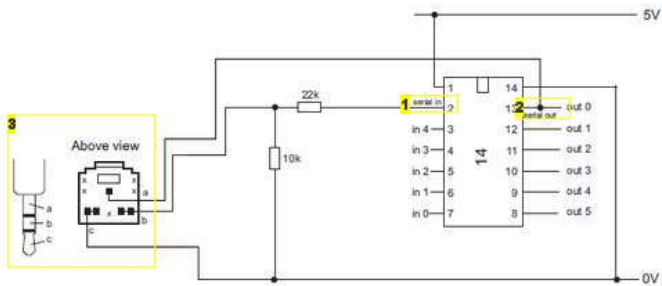
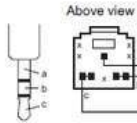


Image Notes

1. SERIAL IN
2. SERIAL OUT
3. 3.5mm stereo jack

To connect the two switches:

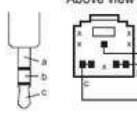
Repeat this for both switches, but connect the ends of the diodes to the same input.



1. switch

To connect the LED:

Connect the other end to a 300R resistor.



1. LED
2. 330R resistor

Connect the circuit to a computer, and open the programming software. Enter the following code: (This code is for the circuit in the diagram below)

```
main:
goto main
```

high 5
pause 5000
low 5

This code sets an interrupt for pin 3, which is connect to both switches by diodes.

main:
This is a label for a routine named "main"

goto main
This runs the routine "main". These two lines of code constantly loop, doing nothing. This is to show the interrupt.

interrupt:
This is a label for a subroutine called "interrupt", which is run when pin 3 is triggered.

high 5
This sets pin 5 (connected to the LED) to high, which turns on the LED.

pause 5000
This tells the code to wait for 5000 milliseconds (5 seconds) before continuing.

low 5
This sets pin 5 to low, which turns off the LED.

setint %00001000,%00001000
This renables the interrupt again, because it is disabled when it is triggered.

return
This tells the code to return to the point at which the subroutine was activated (when either switch was pressed)

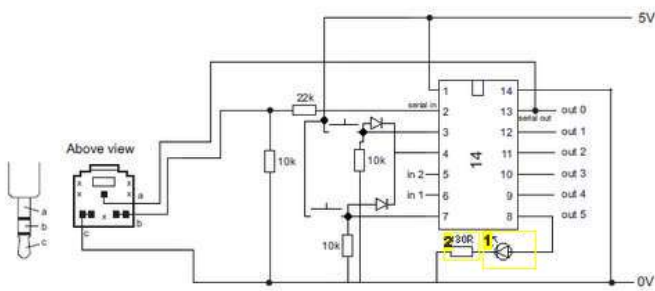


Image Notes
1. LED
2. 330R resistor

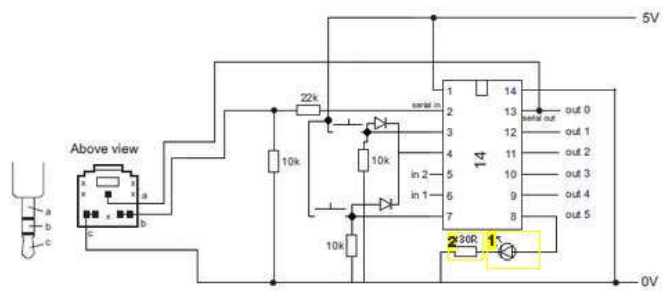
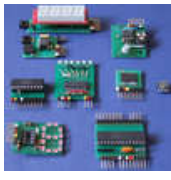


Image Notes
1. LED
2. 330R resistor

step 5: Test

When you press either switch, the LED should turn on for 5 seconds, then off again.

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