BASIC CIRCUIT - GENIE E18 PIC MICROCONTROLLER

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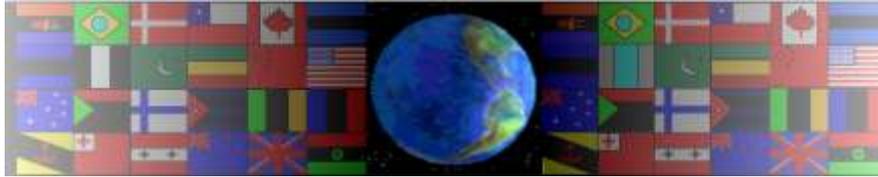
This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

BASIC CIRCUIT - GENIE E18 PIC MICROCONTROLLER

1. The incomplete layout of the basic GENIE E18 PIC microcontroller circuit, is seen below.

The circuit should include all the following components:

Download socket
4.5 t0 6 volt power supply
Push switch, to be used as the reset switch.
Resistors -   Three resistors - 4.7k, 22k and 100k.
Push switch.

Complete the circuit, by adding the missing components and connections.

PLEASE NOTE - NO INPUT OR OUTPUT COMPONENTS ARE NEEDED AT THIS STAGE.
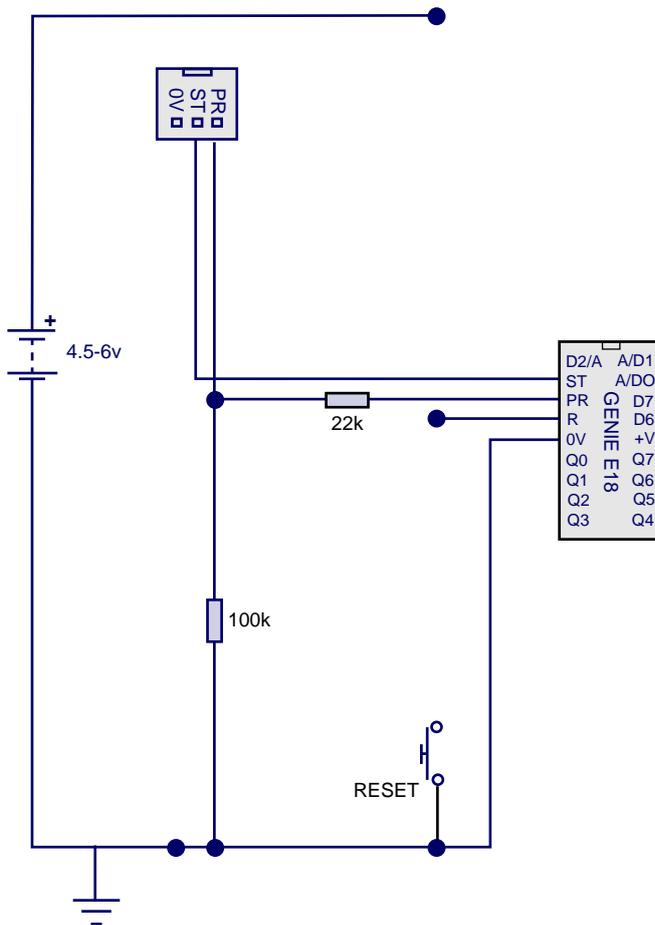
2. Draw the component symbols and connections necessary, to add an input (push to make switch) to A/D0.

3. Draw the component symbols and connections necessary, to add a low power output (LED) to Q0.

4. Add a 6 volt SPDT relay to the output Q6. You will need to include a diode, correctly positioned.

5. Why is it important to include a diode, when using a relay in a circuit of this type?

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6. The incomplete circuit diagram below, should show a primary circuit (a GENIE E18 microcontroller circuit) and a secondary circuit, comprised of a 12 volt supply and a 12 volt motor.

Complete the circuit diagram by adding the missing components and connections, using the correct symbols. There is no need to draw the entire GENIE E18 microcontroller circuit.

Label each component.

Label the primary and secondary circuits.

TO
+ 6 volts

D2/A	A/D1
ST	A/DO
PR	D7
R	D6
0V	+V
Q0	Q7
Q1	Q6
Q2	Q5
Q3	Q4

GENIE E18

1k

MPSA14

TO
0 volts
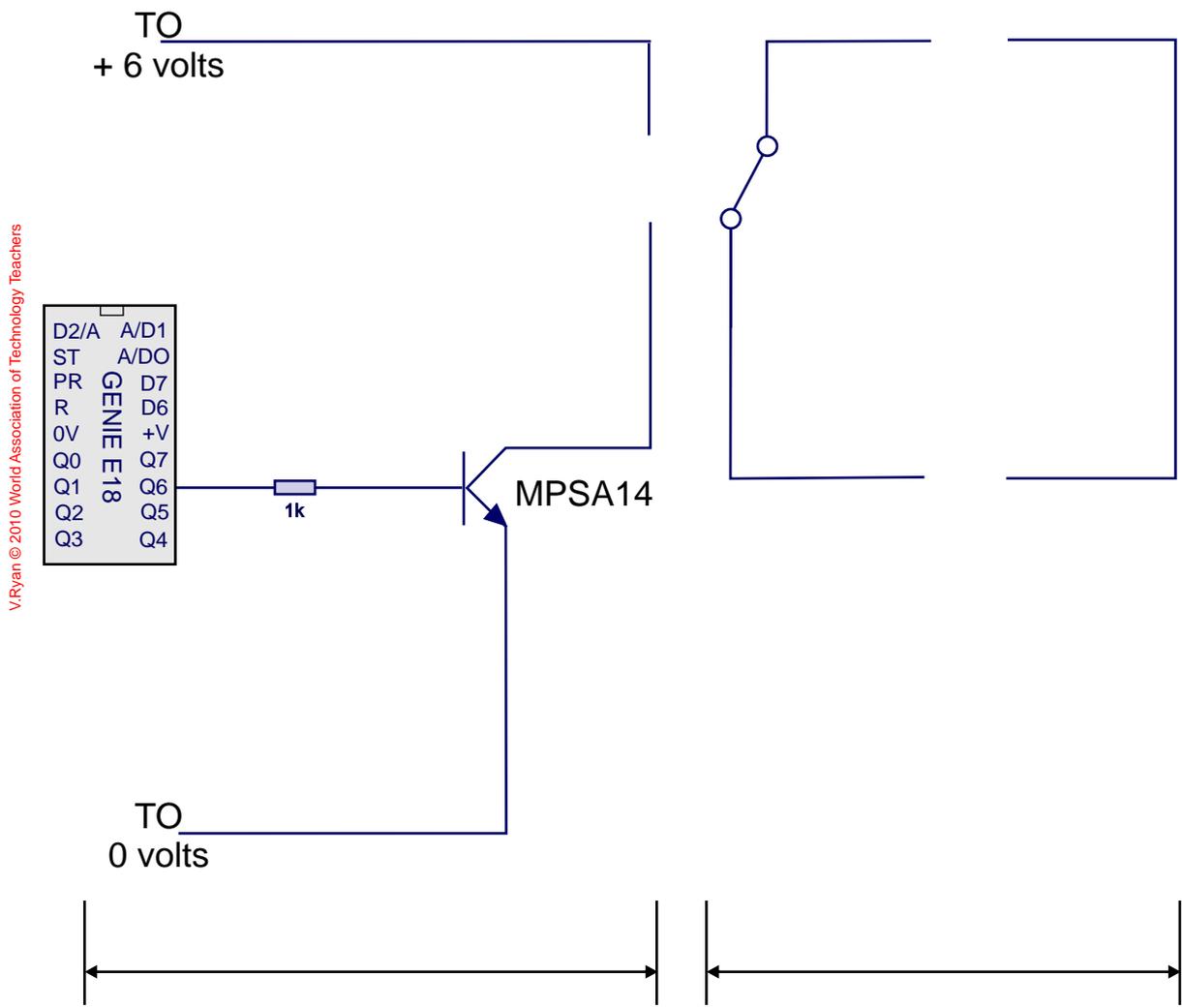
7. Why do you think the circuit above, is composed of a primary and secondary circuit?

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