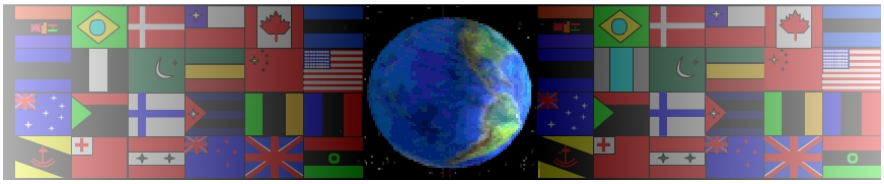
PIC-MICROCONTROLLER AND SENSOR

On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

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 .

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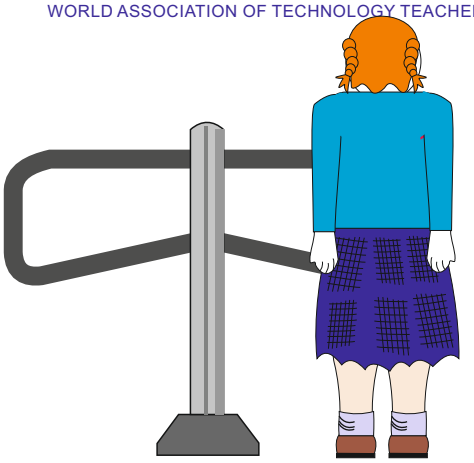
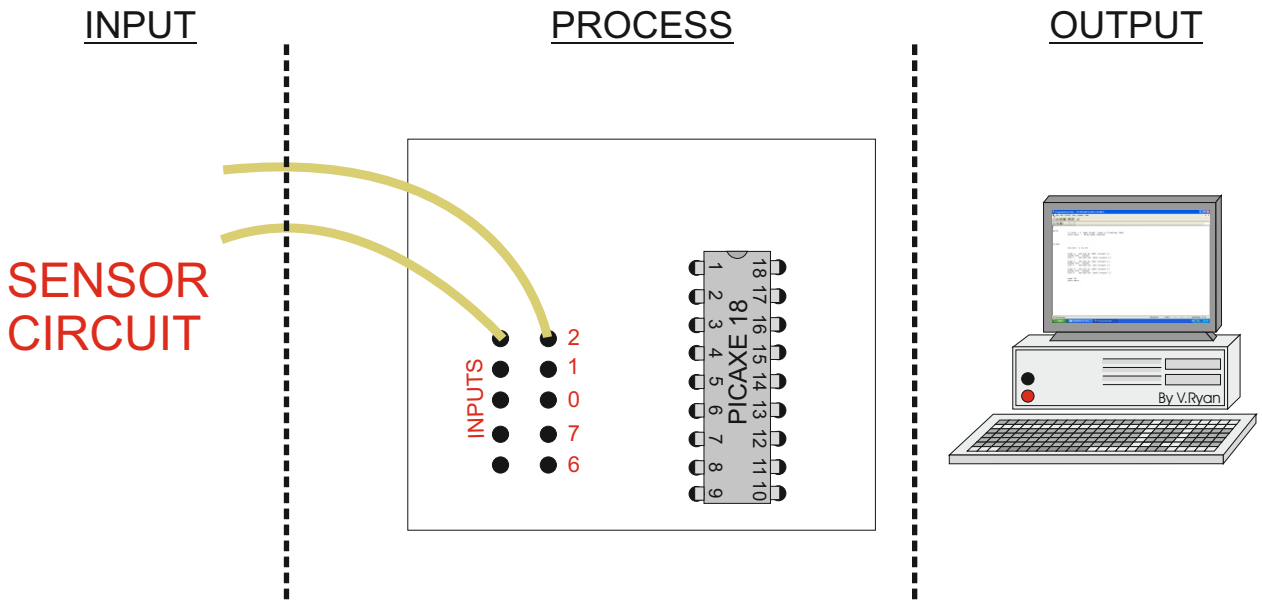


The diagram opposite shows a typical turnstile at the entrance to a theme park. As the customer pays he/she is allowed to enter the park. The owners want to install an automatic system that counts customers as they enter. This would allow the total number of people inside the theme park to be calculated accurately.

Why is it important for the park managers to know precisely how many people are inside the park?

A PIC Microcontroller circuit or computer is to be used to continually update the total number of people I the theme park. A simple layout to the circuit is shown below.



A sensor circuit is to be used to detect people as they enter the park. Describe a simple circuit that could be used.

Draw the circuit diagram for your suggested sensor circuit in the space opposite.