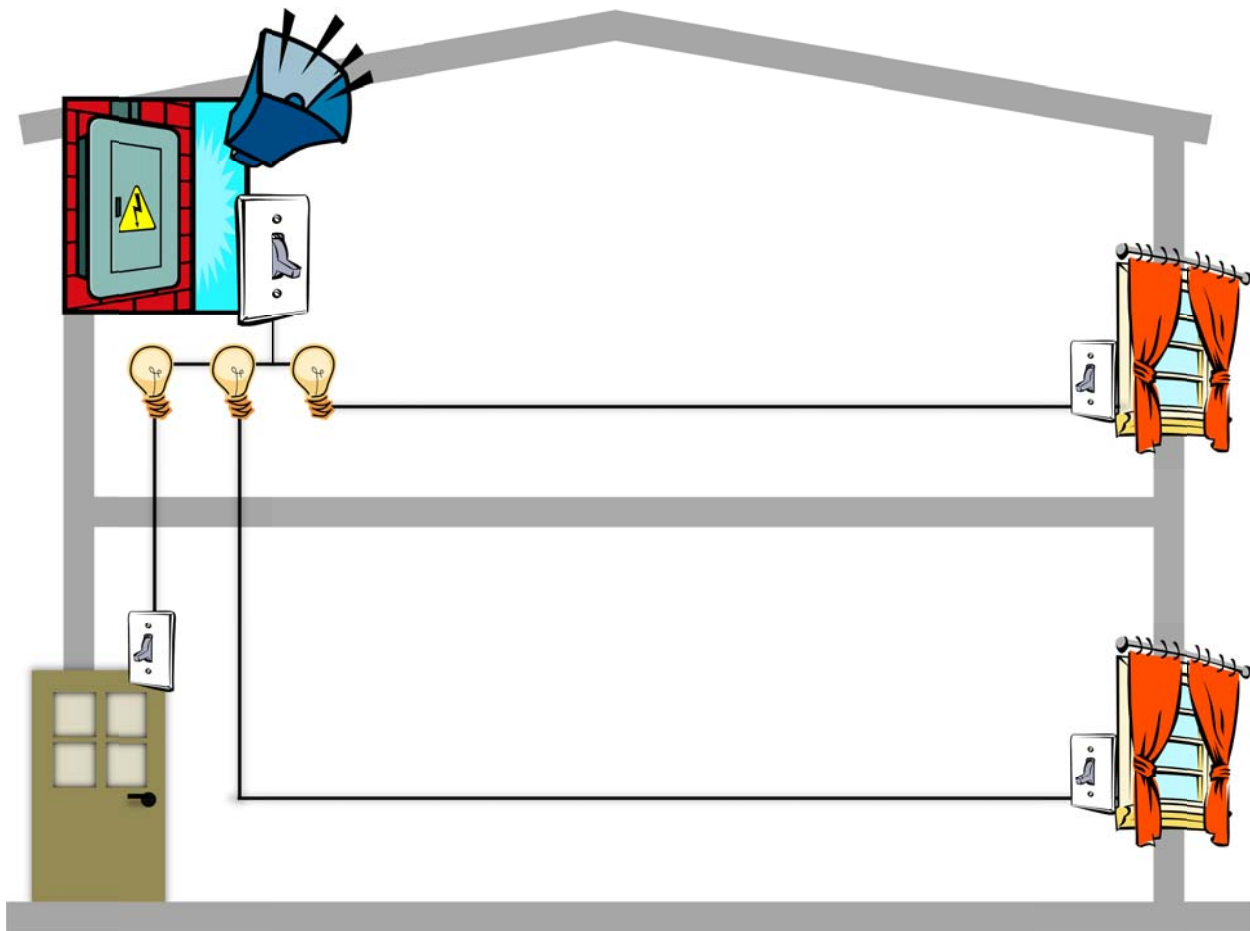


## Assignment 1



Design a home alarm system using PIC18F4550 microcontroller with the following requirements:

- Three main opening to be monitored for breaking in: the main door and two windows
- Each of the opening are equipped with a *magnetic door switch*<sup>1</sup>
- The condition of each *magnetic door switch* is indicated using an LED, where:
  - Alarm activated: blinking LED
  - A break-in attempt: continuous
- These magnetic switches are connected to a *main control panel*
- Inside *main control panel*, there are: *main alarm switch*, *siren*, and the indicator LEDs
- The *main alarm switch* is to either activate and de-activate the alarm system
- The *siren* is to generate warning tones in case of break-in

<sup>1</sup> making use of interrupt to monitor the events of the magnetic door switches