

ezSystem elab16m Project 1s: Alarm System

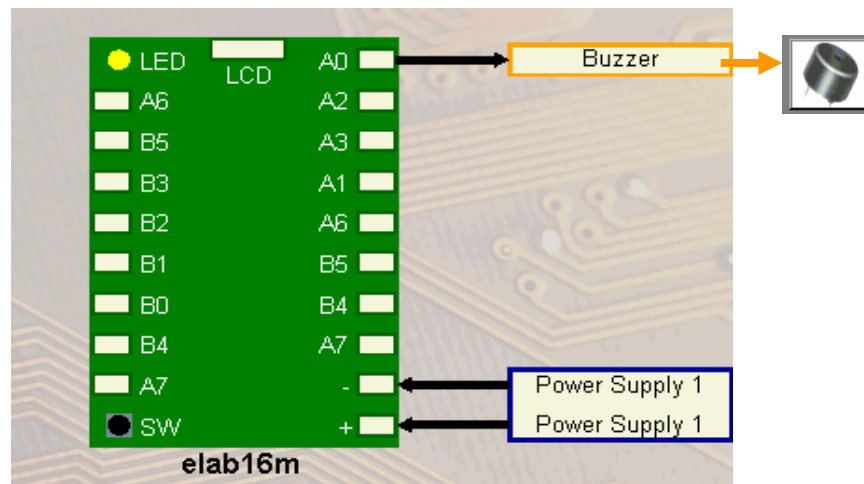
Project description:

The project is a simple alarm that uses the elab16m, a push button switch, LED and a buzzer.

When the push button switch is pressed, the buzzer and the LED will be activated.

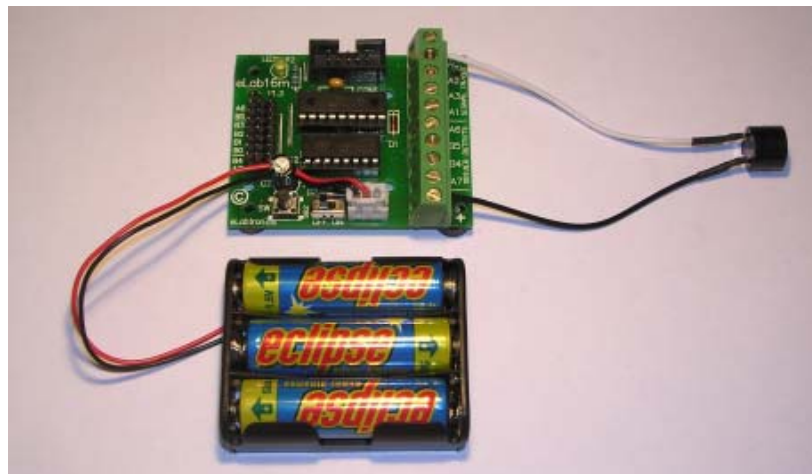
1. Design the Alarm System

Use ezCircuit Designer to construct an input/output (I/O) diagram



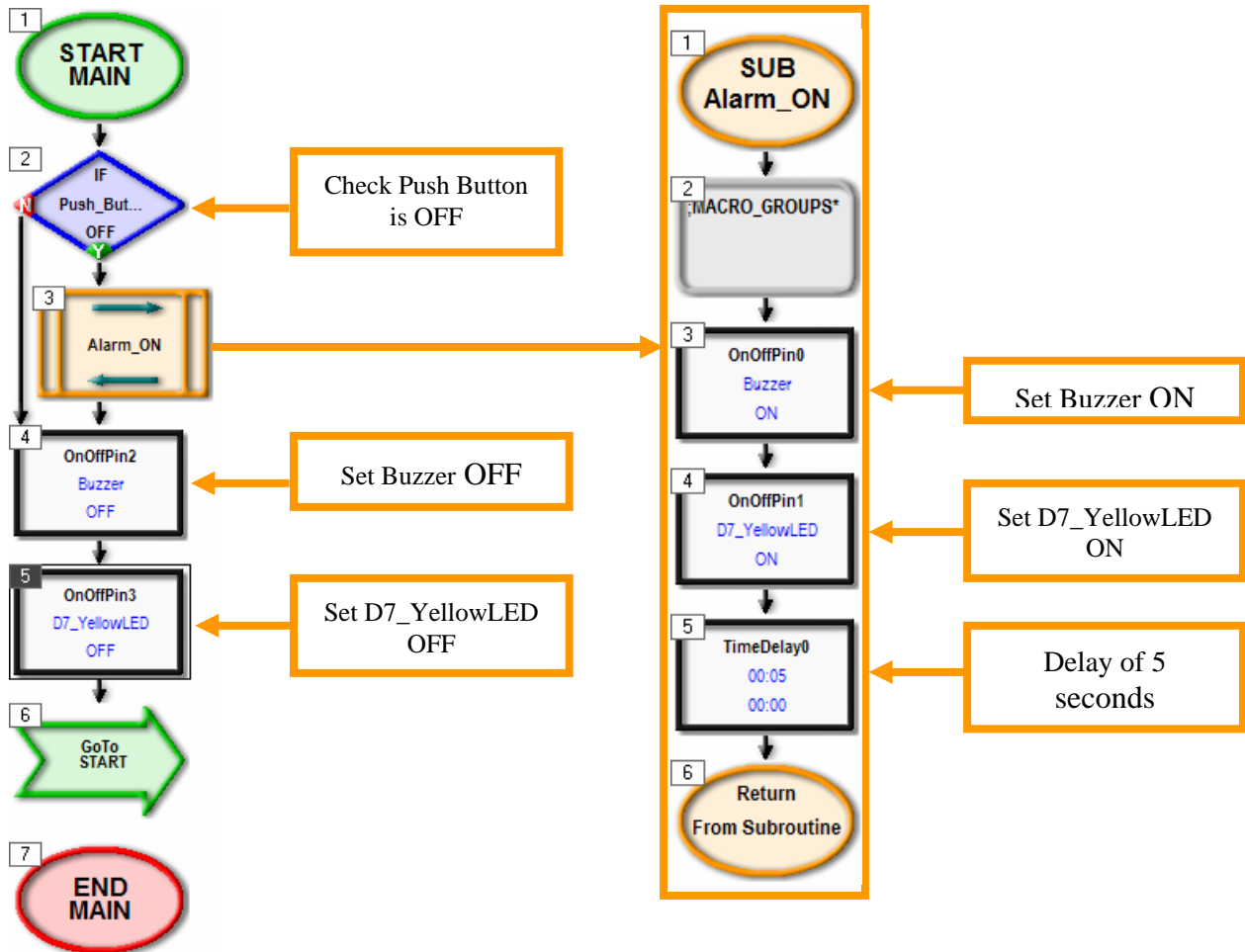
2. Build the Alarm System

Use ezCircuit Designer I/O diagram to connect the hardware



3. Program the Alarm System

Use ezCoreChart to program the functions of the alarm system



Extension:

There are areas where the alarm system could be improved. Work through the following challenges. Make small changes to the program and test run the program regularly.

The current alarm system program is not effective. If the intruder closes the door or the window the alarm will stop because the switch is “de-activated” to its normal condition.

1. Modify the Alarm System so that it continues to be in an alarm or activated condition until it is reset by turning the power off and then back on again.

This is still unsatisfactory because unless the alarm system is manually stopped it will continue to sound causing “noise pollution” which is not lawful.

2. Modify the Alarm System so that when activated the buzzer will be turned on for five seconds and then turned off for ten seconds and continue to loop until manually reset.