Lecture challenge1

SYSTEM SPECIFICATION:

➢ Imagine you have only one pin available on your controller☹.
➢ which connects to an Analog-to-Digital Converter (ADC)☺.
➢ Though this pin you have to control various operations in the system.

OPERATIONS AND MODES:

Mode 0:

➢ System has no interrupt (Maskable interrupt).
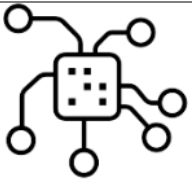➢ LCD display Mode0 in first line, No Maskable in second line.

Mode 1:

➢ System has interrupt (Maskable interrupt).
➢ EXTI0 is enabled.
➢ LCD display Mode1 in first line, E: EXTI0 in second line.
➢ EXTI0 toggle LED0.

Mode 2:

➢ System has interrupt (Maskable interrupt).
➢ EXTI0,EXTI1 is enabled.
➢ LCD display Mode1 in first line, E: EXTI0,EXTI1 in second line.
➢ EXTI0 set   LED0.
➢ EXTI1 clear LED0.

Mode 3:

➢ System has interrupt (Maskable interrupt).
➢ EXTI0,EXTI1 is enabled.
➢ LCD display Mode1 in first line, E: EXTI0,EXTI1 in second line.

- EXTI0 toggle LED0.
- EXTI1 toggle LED1.

LEGAL CHEATING:

- You go to your team mate and give you this circuit and said this is part of the solution can you code? ☺