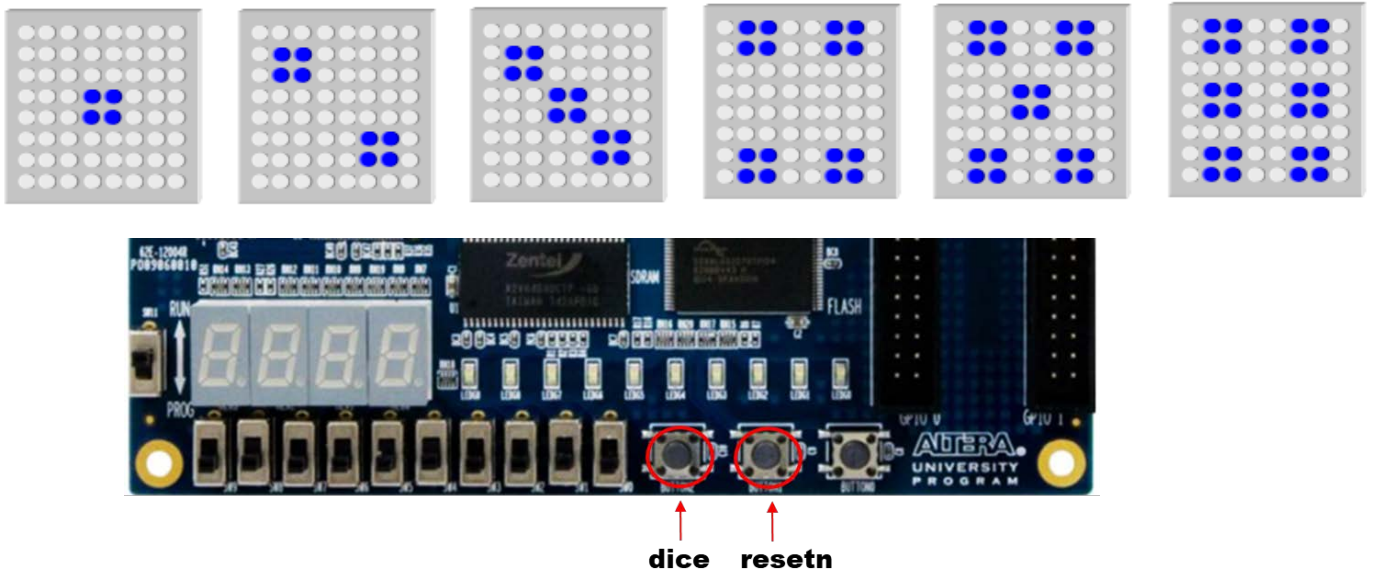# Lab 9 – 8x8 Led Matrix

Lab 9.1:
使用 8x8 led matrix 實現 ”擲骰子”.

- Use Button2 as an active-low asynchronous reset to turn off the 8x8 led matrix.
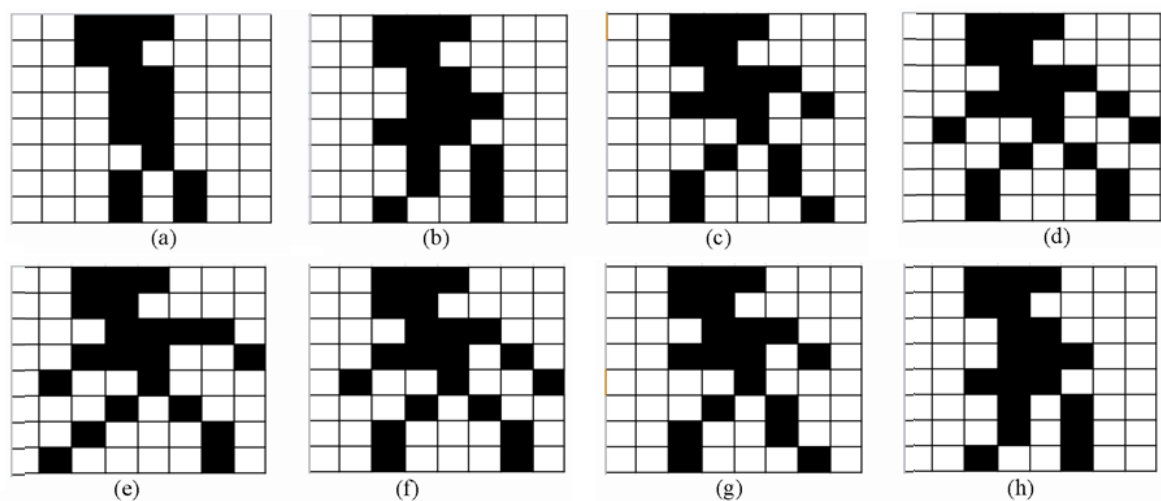- Each time Button3 is pressed, a new "random" dice number is shown.
- 六個骰子的圖案如下

dice   resetn

Lab 9.2:
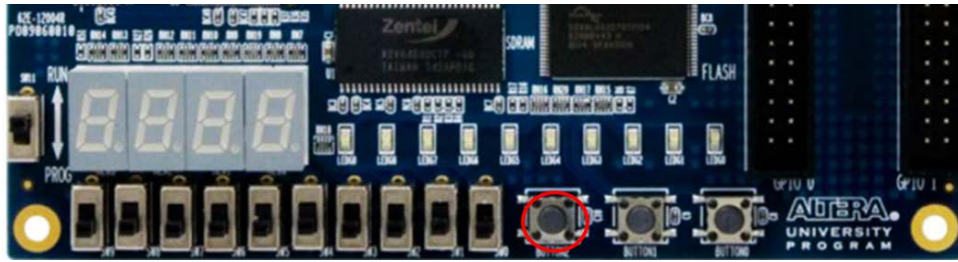### 使用 8x8 led matrix 實現 ”小綠人”

With reference to "led8x8shift.vhd", implement the behavior of "little green man" as follow,

- 小綠人的移動圖案

小綠人動作分解圖

- 小綠人以2Hz的速度進行移動,
- 按一下 Button3, 小綠人停止移動, 再按一下 Button3, 恢復移動.

8x8 Leds
control

Lab-report:

Submit a lab report on **ilearn** by 11:00pm the day before of next lab. (The lab report must be a **PDF** file.) Your Lab report should include the following items:

1) VHDL design for lab 9.1.

2) VHDL design for lab 9.2.