實驗名稱	LinkIt 7697 D1 – D8 分別接到 LED，實作跑馬燈展示		
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1. 實驗目的

2. 實驗步驟

   1.LED 向左及向右執行花色展示

   2. 執行自定花色展示:

   所有 LED 亮滅兩次 -> 左移八次 -> 所有 LED 亮滅兩次 ->

   右移八次

3. 程式碼

```
const byte NUM = 8;
const byte led[] = { 8, 9, 10, 11, 12, 13, 14, 15};
const int delaytime = 100;
int i, j, k, x;


void setup() {
  Serial.begin(9600);
  delay(300);
  for (i = 0; i < NUM; i++)
  { pinMode(led[i], OUTPUT);
    digitalWrite(led[i], HIGH);
  }
}
void loop()
{
  for (x = 0; x < 2 ; x++) {
    for (i = 0; i < NUM ; i++)
    { Serial.println(i);
      Serial.println(led[i]);
      digitalWrite(led[i], HIGH);
    }
    delay(delaytime);
    for (i = 0; i < NUM ; i++)
    { Serial.println(i);
      Serial.println(led[i]);
      digitalWrite(led[i], LOW);
    }
  }
  delay(delaytime);
```

```
        for (j = 0; j < NUM ; j++)
        {
          digitalWrite(led[j], HIGH);
          delay(delaytime);
          digitalWrite(led[j], LOW);

        }
        delay(delaytime);
        for (x = 0; x < 2 ; x++) {
          for (i = 0; i < NUM  ; i++)
          { Serial.println(i);
            Serial.println(led[i]);
            digitalWrite(led[i], HIGH);
          }
          delay(delaytime);
          for (i = 0; i < NUM  ; i++)
          { Serial.println(i);
            Serial.println(led[i]);
            digitalWrite(led[i], LOW);
          }
        }
        delay(delaytime);
        for (k = NUM; k >= 0 ; k--)
        {

          digitalWrite(led[k], HIGH);
          delay(delaytime);
          digitalWrite(led[k], LOW);

        }
      }
```

4. 實驗結果及分析

5. 心得討論

6. 修正電路圖

7. 修正程式碼