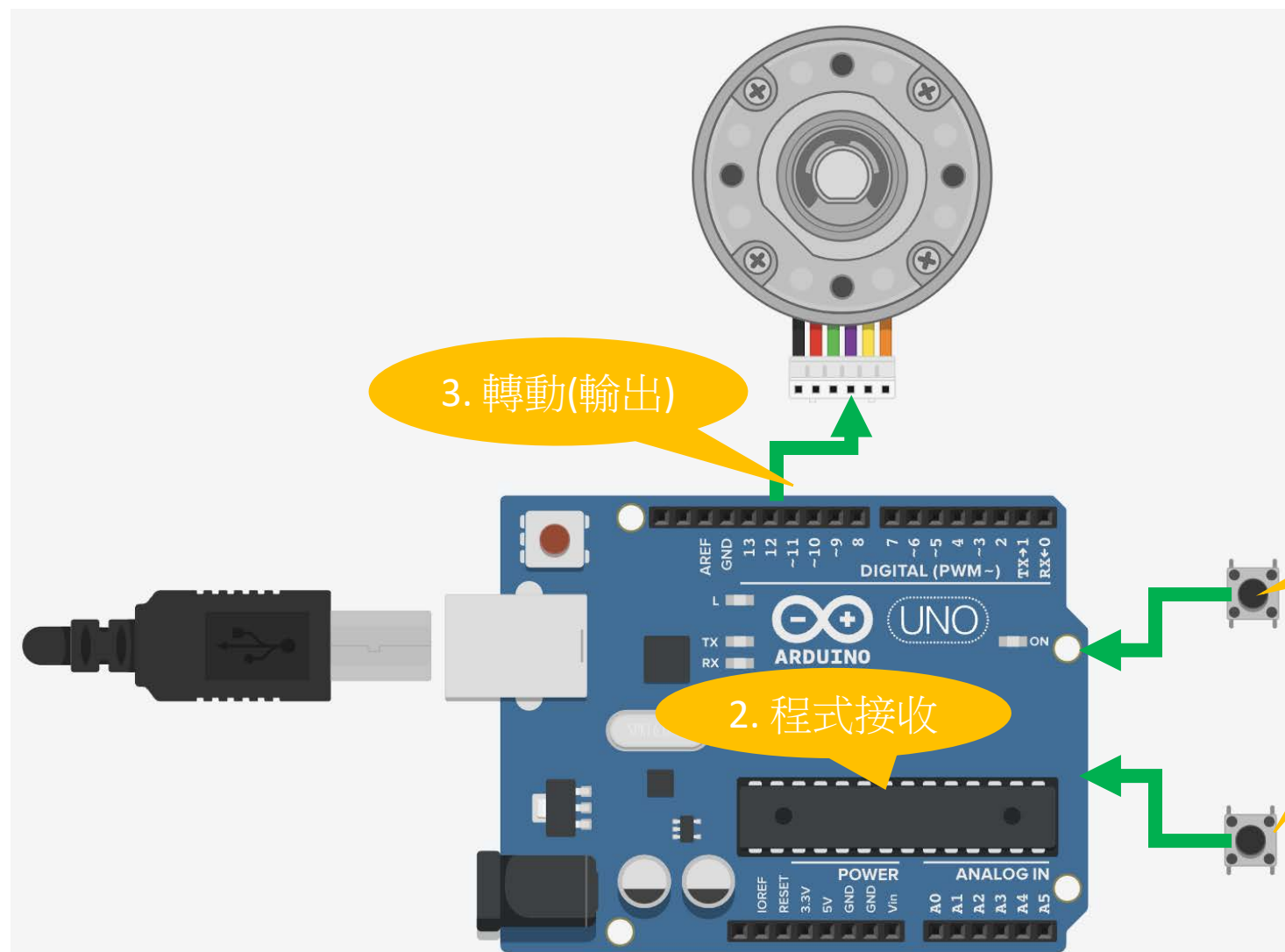


2023 年花蓮縣夢想起飛- 第 10 屆青少年發明展

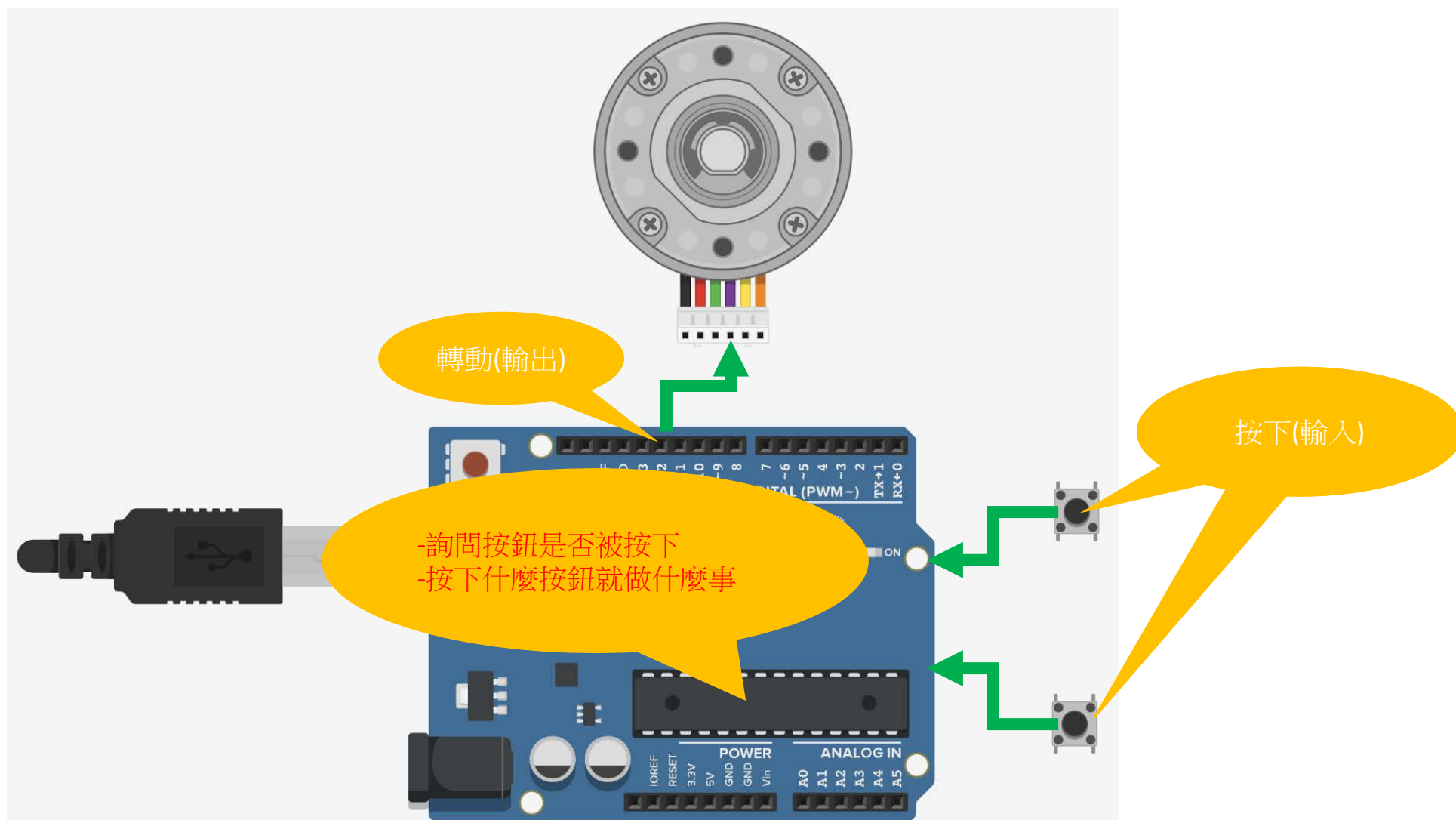
Simon

2023.11.07

操作流程



運作原理



程式

```
#include <Stepper.h>

// change this to fit the number of steps per revolution
const int stepsPerRevolution = 2048;
// Adjustable range of 28BYJ-48 stepper is 0~17 rpm
const int rolePerMinute = 15;
int checkCnt = 0;
// initialize the stepper library on pins 8 through 11:
Stepper myStepper(stepsPerRevolution, 8, 10, 9, 11);

void setup() {
  pinMode(3, INPUT);
  pinMode(4, INPUT);
  myStepper.setSpeed(rolePerMinute);
}

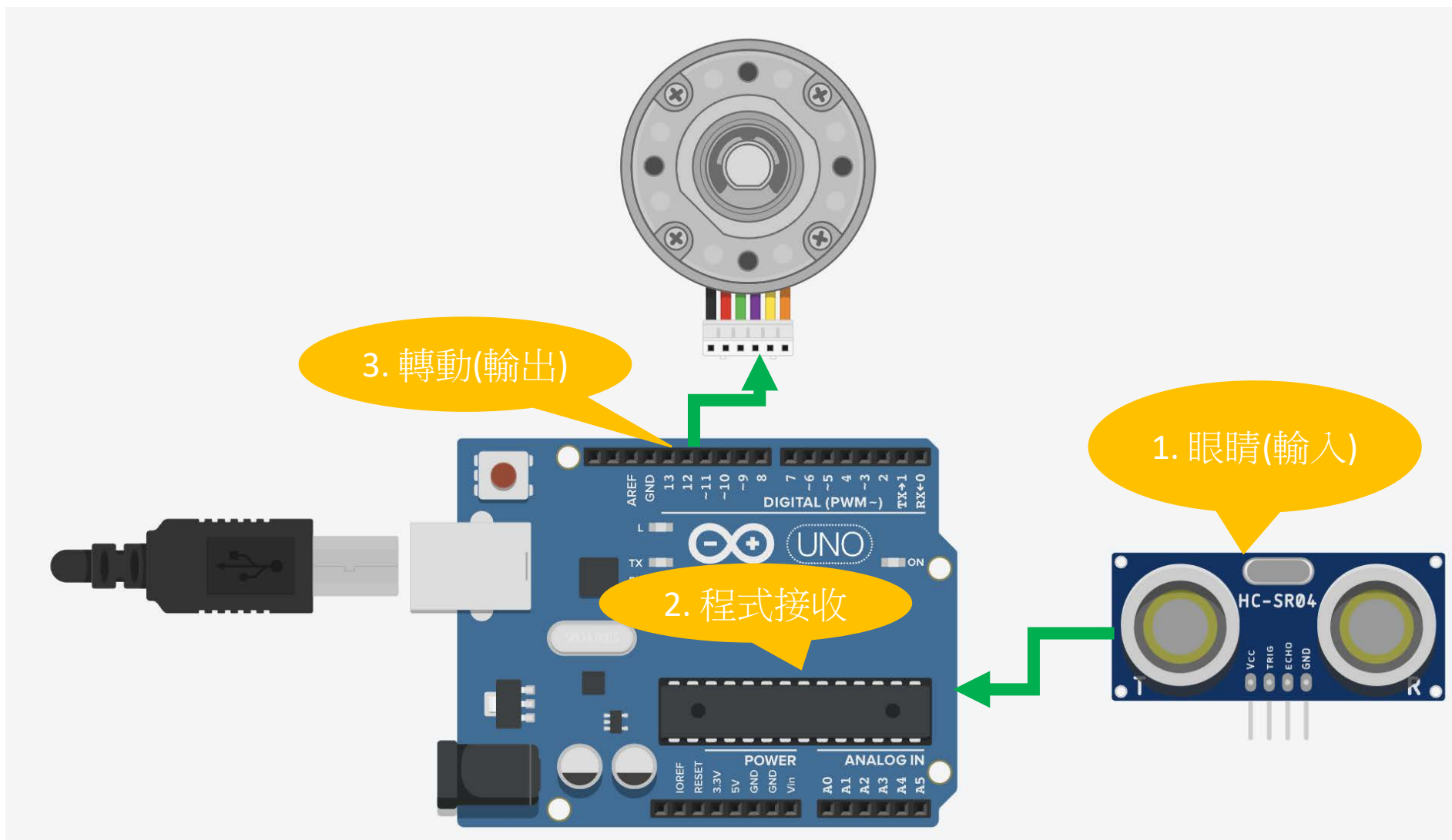
void loop() {
  if (digitalRead(3) == HIGH) {
    myStepper.step(-stepsPerRevolution * 4);
  }
  if (digitalRead(4) == HIGH) {
    myStepper.step(-stepsPerRevolution * 8);
  }
  delay(10);
}
```

按下(輸入)

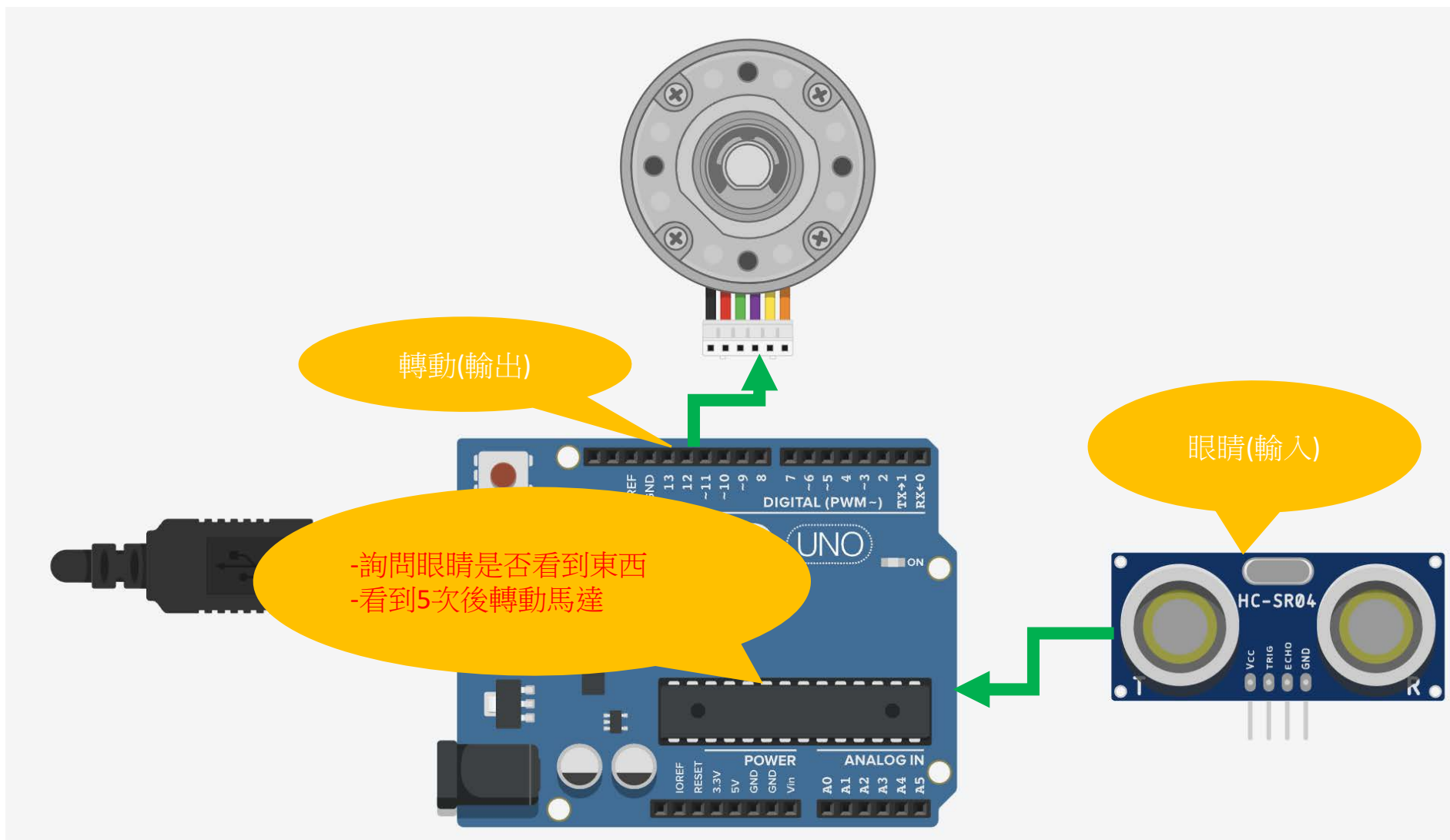
轉動(輸出)

-詢問按鈕是否被按下
-按下什麼按鈕就做什麼事

操作流程



運作原理



程式

```
#include <Stepper.h>

// change this to fit the number of steps per revolution
const int stepsPerRevolution = 2048;
// Adjustable range of 28BYJ-48 stepper is 0~17 rpm
const int rolePerMinute = 15;
// initialize the stepper library on pins 8 through 11:
Stepper myStepper(stepsPerRevolution, 8, 10, 9, 11);

int X = 0;
int useConter = 0;
int triggerCnt = 5;
int isIn = false;
long readUltrasonicDistance(int triggerPin, int echoPin)
{

}

void setup() {

}

void loop() {
  X = 0.01723 * readUltrasonicDistance(12, 13);
  if (X < 6 && !isIn)
  {
    digitalWrite(0, HIGH);
    delay(1000);
    isIn = true;
    useConter++;
    if(useConter > 5)
    {
      digitalWrite(1, HIGH);
      myStepper.step(stepsPerRevolution * 0.5);
      delay(1000);
      myStepper.step(-stepsPerRevolution * 0.5);
      delay(1000);
      useConter = 0;;
      digitalWrite(1, LOW);
    }
    digitalWrite(0, LOW);
  }

  if (X >= 50 && isIn)
  {
    isIn = false;
  }

  delay(10);
}
```

眼睛(輸入)

轉動(輸出)

-詢問眼睛是否看到東西
-看到5次後轉動馬達