

乱数を使用したランダム LED 点灯回路用 スケッチ

```
#define LED1 2
#define LED2 3
#define LED3 4
#define LED4 5
#define LED5 6
#define LED6 7
#define LED7 8
#define LED8 9
#define LED9 10
#define LED10 11
#define IN1 A0
#define IN2 13
unsigned int cnt = 0;
unsigned int cnt2 = 0;
unsigned int randomNumber;

void setup() {
  pinMode(LED1, OUTPUT);
  pinMode(LED2, OUTPUT);
  pinMode(LED3, OUTPUT);
  pinMode(LED4, OUTPUT);
  pinMode(LED5, OUTPUT);
  pinMode(LED6, OUTPUT);
  pinMode(LED7, OUTPUT);
  pinMode(LED8, OUTPUT);
  pinMode(LED9, OUTPUT);
  pinMode(LED10, OUTPUT);
  pinMode(IN2, INPUT);
  randomSeed(analogRead(A0));
  Serial.begin(9600);
}

void loop() {
  if ( digitalRead(IN2) == HIGH) {
```

```
cnt = 0;
cnt2++;
while (cnt < 30) {
  cnt++;
  randomNumber = random(2, 12);
  Serial.print("Number");
  Serial.print(" ");
  Serial.print(randomNumber);
  Serial.print(" ");
  Serial.print("cnt");
  Serial.print(" ");
  Serial.print(cnt);
  Serial.print(" ");
  Serial.print("cnt2");
  Serial.print(" ");
  Serial.println(cnt2);

  LED();
  delay(50);

}
}
}

void LED() {
  switch (randomNumber) {
    case (2):
      digitalWrite(LED1, HIGH);
      digitalWrite(LED2, LOW);
      digitalWrite(LED3, LOW);
      digitalWrite(LED4, LOW);
      digitalWrite(LED5, LOW);
      digitalWrite(LED6, LOW);
      digitalWrite(LED7, LOW);
      digitalWrite(LED8, LOW);
      digitalWrite(LED9, LOW);
      digitalWrite(LED10, LOW);
      break;
```

case (3):

```
digitalWrite(LED1, LOW);  
digitalWrite(LED2, HIGH);  
digitalWrite(LED3, LOW);  
digitalWrite(LED4, LOW);  
digitalWrite(LED5, LOW);  
digitalWrite(LED6, LOW);  
digitalWrite(LED7, LOW);  
digitalWrite(LED8, LOW);  
digitalWrite(LED9, LOW);  
digitalWrite(LED10, LOW);  
break;
```

case (4):

```
digitalWrite(LED1, LOW);  
digitalWrite(LED2, LOW);  
digitalWrite(LED3, HIGH);  
digitalWrite(LED4, LOW);  
digitalWrite(LED5, LOW);  
digitalWrite(LED6, LOW);  
digitalWrite(LED7, LOW);  
digitalWrite(LED8, LOW);  
digitalWrite(LED9, LOW);  
digitalWrite(LED10, LOW);  
break;
```

case (5):

```
digitalWrite(LED1, LOW);  
digitalWrite(LED2, LOW);  
digitalWrite(LED3, LOW);  
digitalWrite(LED4, HIGH);  
digitalWrite(LED5, LOW);  
digitalWrite(LED6, LOW);  
digitalWrite(LED7, LOW);  
digitalWrite(LED8, LOW);  
digitalWrite(LED9, LOW);  
digitalWrite(LED10, LOW);
```

```
break;
```

```
case (6):
```

```
    digitalWrite(LED1, LOW);  
    digitalWrite(LED2, LOW);  
    digitalWrite(LED3, LOW);  
    digitalWrite(LED4, LOW);  
    digitalWrite(LED5, HIGH);  
    digitalWrite(LED6, LOW);  
    digitalWrite(LED7, LOW);  
    digitalWrite(LED8, LOW);  
    digitalWrite(LED9, LOW);  
    digitalWrite(LED10, LOW);  
    break;
```

```
case (7):
```

```
    digitalWrite(LED1, LOW);  
    digitalWrite(LED2, LOW);  
    digitalWrite(LED3, LOW);  
    digitalWrite(LED4, LOW);  
    digitalWrite(LED5, LOW);  
    digitalWrite(LED6, HIGH);  
    digitalWrite(LED7, LOW);  
    digitalWrite(LED8, LOW);  
    digitalWrite(LED9, LOW);  
    digitalWrite(LED10, LOW);  
    break;
```

```
case (8):
```

```
    digitalWrite(LED1, LOW);  
    digitalWrite(LED2, LOW);  
    digitalWrite(LED3, LOW);  
    digitalWrite(LED4, LOW);  
    digitalWrite(LED5, LOW);  
    digitalWrite(LED6, LOW);  
    digitalWrite(LED7, HIGH);  
    digitalWrite(LED8, LOW);  
    digitalWrite(LED9, LOW);
```

```
digitalWrite(LED10, LOW);  
break;  
  
case (9):  
  digitalWrite(LED1, LOW);  
  digitalWrite(LED2, LOW);  
  digitalWrite(LED3, LOW);  
  digitalWrite(LED4, LOW);  
  digitalWrite(LED5, LOW);  
  digitalWrite(LED6, LOW);  
  digitalWrite(LED7, LOW);  
  digitalWrite(LED8, HIGH);  
  digitalWrite(LED9, LOW);  
  digitalWrite(LED10, LOW);  
  break;  
  
case (10):  
  digitalWrite(LED1, LOW);  
  digitalWrite(LED2, LOW);  
  digitalWrite(LED3, LOW);  
  digitalWrite(LED4, LOW);  
  digitalWrite(LED5, LOW);  
  digitalWrite(LED6, LOW);  
  digitalWrite(LED7, LOW);  
  digitalWrite(LED8, LOW);  
  digitalWrite(LED9, HIGH);  
  digitalWrite(LED10, LOW);  
  break;  
  
case (11):  
  digitalWrite(LED1, LOW);  
  digitalWrite(LED2, LOW);  
  digitalWrite(LED3, LOW);  
  digitalWrite(LED4, LOW);  
  digitalWrite(LED5, LOW);  
  digitalWrite(LED6, LOW);  
  digitalWrite(LED7, LOW);  
  digitalWrite(LED8, LOW);
```

```
digitalWrite(LED9, LOW);  
digitalWrite(LED10, HIGH);  
break;  
}  
}
```