

Electronic Dice 3

5/8/20

```
/* This version continues the rolling
 * after the button is released.*/
```

```
int button = 4;
int dieA = 8;
int dieB = 9;
int dieC = 10;
int dieD = 11;
int rollSpeed = 43;
int Count = 200;
/* "Count" needs to be at least three
 * times higher than "rollSpeed".*/
```

```
int overRoll = 17;
/* "overRoll" is how long the dice
 * keeps going after the button is
 * released. */
```

```
int reps = 0;
/* Repetitions in "for" loop.*/
```

```
void setup() {
  pinMode(dieA,OUTPUT);
  pinMode(dieB,OUTPUT);
  pinMode(dieC,OUTPUT);
  pinMode(dieD,OUTPUT);
  pinMode(button,INPUT);
}
```

```
void ONE() {
  digitalWrite(dieA,HIGH);
  digitalWrite(dieB,LOW);
  digitalWrite(dieC,LOW);
  digitalWrite(dieD,LOW);
}
```

```
void TWO() {
  digitalWrite(dieA,LOW);
  digitalWrite(dieB,HIGH);
  digitalWrite(dieC,LOW);
  digitalWrite(dieD,LOW);
}
```

```
void THREE() {
  digitalWrite(dieA,HIGH);
  digitalWrite(dieB,HIGH);
  digitalWrite(dieC,LOW);
  digitalWrite(dieD,LOW);
}
```

```
void FOUR() {
  digitalWrite(dieA,LOW);
  digitalWrite(dieB,HIGH);
  digitalWrite(dieC,HIGH);
  digitalWrite(dieD,LOW);
}
```

```
void FIVE() {
  digitalWrite(dieA,HIGH);
  digitalWrite(dieB,HIGH);
  digitalWrite(dieC,HIGH);
  digitalWrite(dieD,LOW);
}
```

```
void SIX() {
  digitalWrite(dieA,LOW);
  digitalWrite(dieB,HIGH);
  digitalWrite(dieC,HIGH);
  digitalWrite(dieD,HIGH);
}
```

```
void loop() {
  while(digitalRead(button) == LOW);
  delay(50);
  while(digitalRead(button) == HIGH) {
    if((Count/41)%3 == 0){ROLLA();}
    if((Count/41)%3 == 1){ROLLB();}
    if((Count/41)%3 == 2){ROLLC();}
    Count = Count + 1;
    delay(1);
  }
  for(reps = 0;reps < overRoll;reps++){
    ROLLA();
    delay(rollSpeed);
    ROLLB();
    delay(rollSpeed);
    ROLLC();
    delay(rollSpeed);
  }
  if(Count%6 == 0){ONE();}
  if(Count%6 == 1){TWO();}
  if(Count%6 == 2){THREE();}
  if(Count%6 == 3){FOUR();}
  if(Count%6 == 4){FIVE();}
  if(Count%6 == 5){SIX();}
  Count = 200;
  delay(500);
}
```