

```

int layers[] = {2, 3, 4};
int columns[] = {5, 6, 7, 8, 9, 10, 11, 12, 13};

int delayTime = 100;

int patterns[][3][3] = {
  {{1, 0, 0},
   {0, 1, 0},
   {0, 0, 1}},

  {{0, 0, 1},
   {0, 1, 0},
   {1, 0, 0}},

};

void setup() {

  for (int i = 0; i < 3; i++) {
    pinMode(layers[i], OUTPUT);
  }
  for (int i = 0; i < 9; i++) {
    pinMode(columns[i], OUTPUT);
  }
}

void loop() {
  for (int patternIndex = 0; patternIndex < sizeof(patterns) / sizeof(patterns[0]); patternIndex++) {

    displayPattern(patterns[patternIndex]);

    delay(delayTime);
  }
}

void displayPattern(int pattern[][3]) {

  for (int layer = 0; layer < 3; layer++) {

    digitalWrite(layers[layer], HIGH);
  }
}

```

```
for (int col = 0; col < 3; col++) {  
  
    digitalWrite(columns[col * 3], pattern[layer][col]);  
    digitalWrite(columns[col * 3 + 1], LOW);  
    digitalWrite(columns[col * 3 + 2], LOW);  
  
    delayMicroseconds(100);  
  
    digitalWrite(columns[col * 3], LOW);  
    digitalWrite(columns[col * 3 + 1], LOW);  
    digitalWrite(columns[col * 3 + 2], LOW);  
}  
  
digitalWrite(layers[layer], LOW);  
}  
}
```