# Séquence/codation lumière

```
#include <Adafruit_NeoPixel.h>


Adafruit_NeoPixel pixels = Adafruit_NeoPixel(16, 9, NEO_GRB + NEO_KHZ800); //16 leds branchées sur 9
Adafruit_NeoPixel pixels2 = Adafruit_NeoPixel(16, 10, NEO_GRB + NEO_KHZ800);


long previousMillis = 0;
int interval = 150; // vitesse de rotation

int startIndex = 0;

void setup() {
  // put your setup code here, to run once:
  Serial.begin(9600);
  pixels.begin();
  pixels2.begin();
}

void loop() {
  // put your main code here, to run repeatedly:

  int potValue = analogRead(0);
  Serial.println(potValue);
  //float lum = potValue/1023.;


  long currentTime = millis();

  float pulse1 = (sin(currentTime/500.) + 1) /2.;
  float pulse2 = (sin(currentTime/450.) + 1) /2.;
  float pulse3 = (sin(currentTime/300.) + 1) /2.;

  if(currentTime - previousMillis > interval){
    startIndex ++;
    previousMillis = currentTime;
  }

if (potValue < 333) {

    for (int i = startIndex ; i < startIndex +5 ; i++) {
      pixels.setPixelColor(i%16, pixels.Color(0, 40, 140) );
      pixels2.setPixelColor(i%16, pixels2.Color(0, 255*pulse1, 85*pulse1) );
    }
    for (int i = startIndex +5 ; i < startIndex+10 ; i++) {
      pixels.setPixelColor(i%16, pixels.Color(30, 116, 255) );
      pixels2.setPixelColor(i%16, pixels2.Color(72*pulse2, 122*pulse2, 37*pulse2) );
    }
    for (int i = startIndex+10 ; i < startIndex+16 ; i++) {
      pixels.setPixelColor(i%16, pixels.Color(0, 255, 255) );
      pixels2.setPixelColor(i%16, pixels2.Color(196*pulse3, 188*pulse3, 42*pulse3) );
    }

}
else if ( potValue > 333 && potValue < 666) {
  for (int i = startIndex ; i < startIndex + 5 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(225, 255, 0) );
    pixels2.setPixelColor(i%16, pixels2.Color(49*pulse1, 192*pulse1, 255*pulse1) );
  }
  for (int i = startIndex + 5 ; i < startIndex + 10 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(200, 50, 0) );
    pixels2.setPixelColor(i%16, pixels2.Color(153*pulse2, 57*pulse2, 255*pulse2) );
  }
  for (int i = startIndex + 10 ; i < startIndex + 16 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(200, 30, 0) );
    pixels2.setPixelColor(i%16, pixels2.Color(220*pulse3, 21*pulse3, 255*pulse3) );
  }

}
else {
  for (int i = startIndex + 0 ; i <  startIndex + 5 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(157, 0, 255) );
    pixels2.setPixelColor(i%16, pixels2.Color(255*pulse1, 0, 221*pulse1) );
  }
  for (int i = startIndex+ 5 ; i < startIndex + 10 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(190, 30, 180) );
    pixels2.setPixelColor(i%16, pixels2.Color(255*pulse2, 34*pulse2, 200*pulse2) );
  }
  for (int i =startIndex+ 10 ; i <startIndex+ 16 ; i++) {
    pixels.setPixelColor(i%16, pixels.Color(70, 39, 255) );
    pixels2.setPixelColor(i%16, pixels2.Color(255*pulse3, 6*pulse3, 36*pulse3) );
  }

  pixels.show();
  pixels2.show();


}
```

## Couleurs dégraders avec une rotation de led

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ES2