

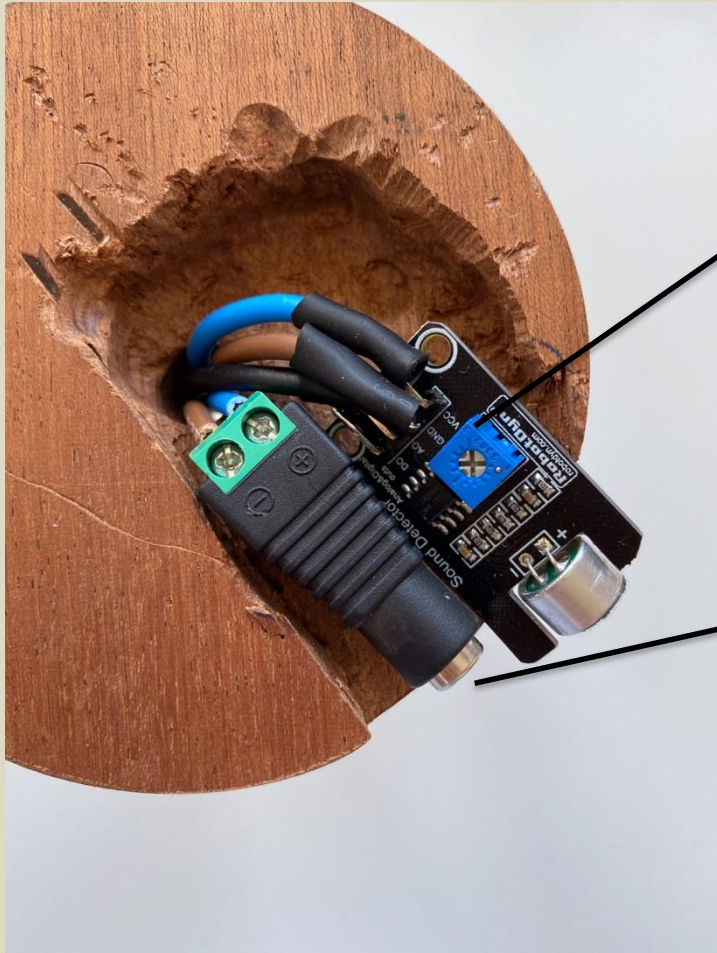
Music vizualizer

Paulo Šolić

GIG 3

Programiranje

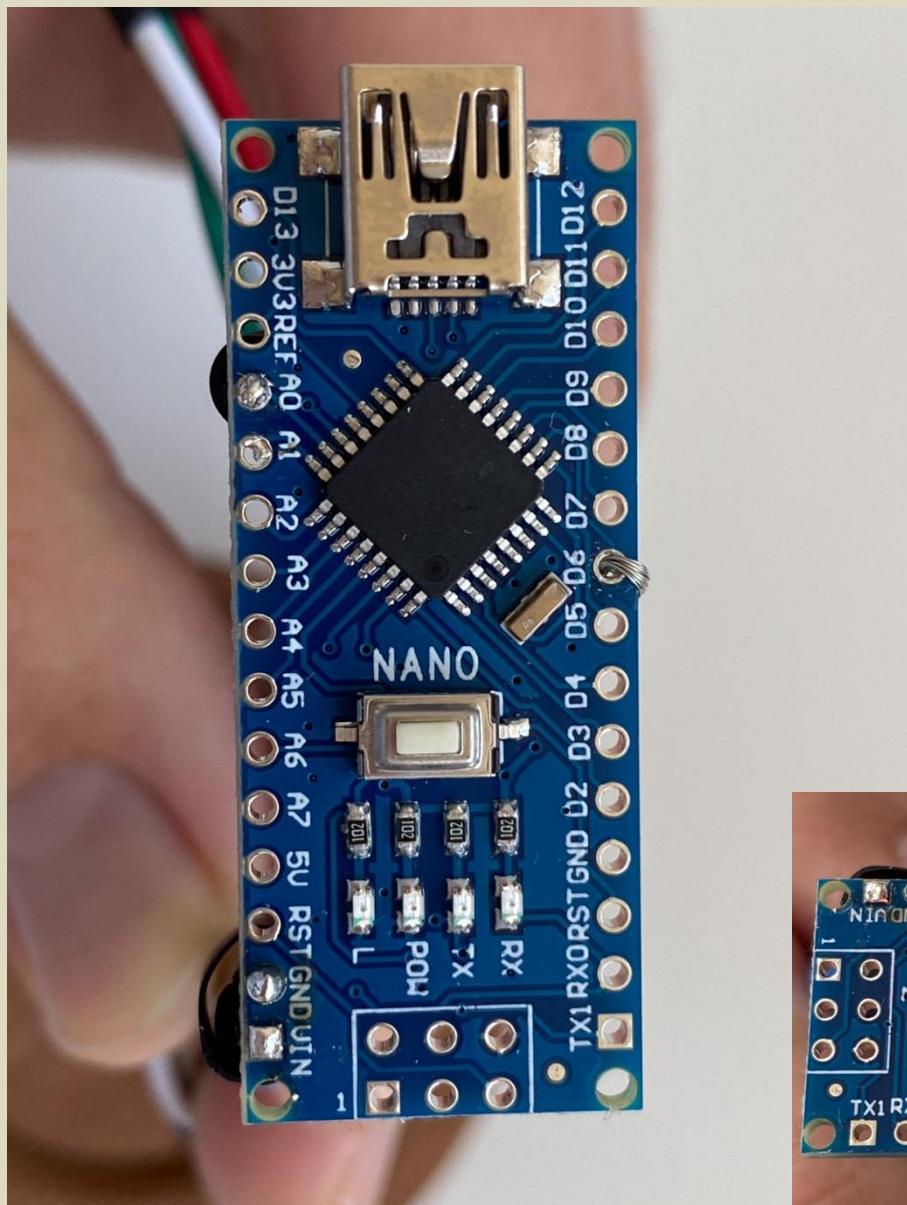
Strojna oprema:



RobotDyn® Microphone
- analogni zvok pretvarja v digitalni

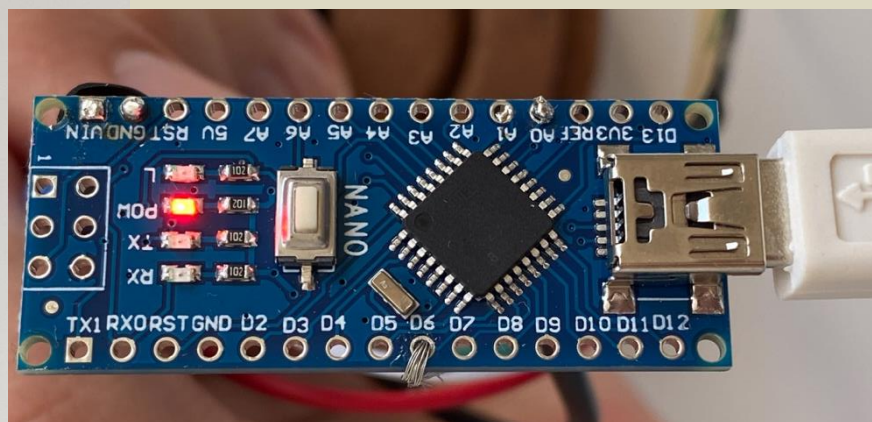
Adapter
- 5V





Arduino NANO

- A0 – dobijemo odčitek z mikrofona
- D6 – upravlja LED-icama
- GND – - tok
- UIN - + tok

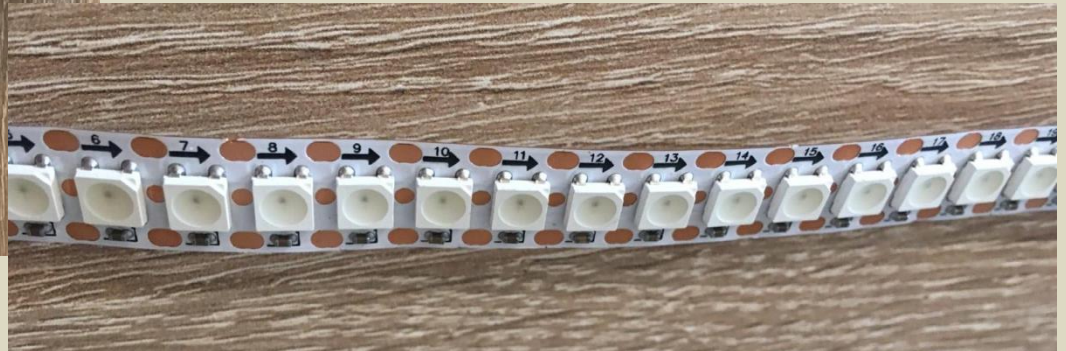
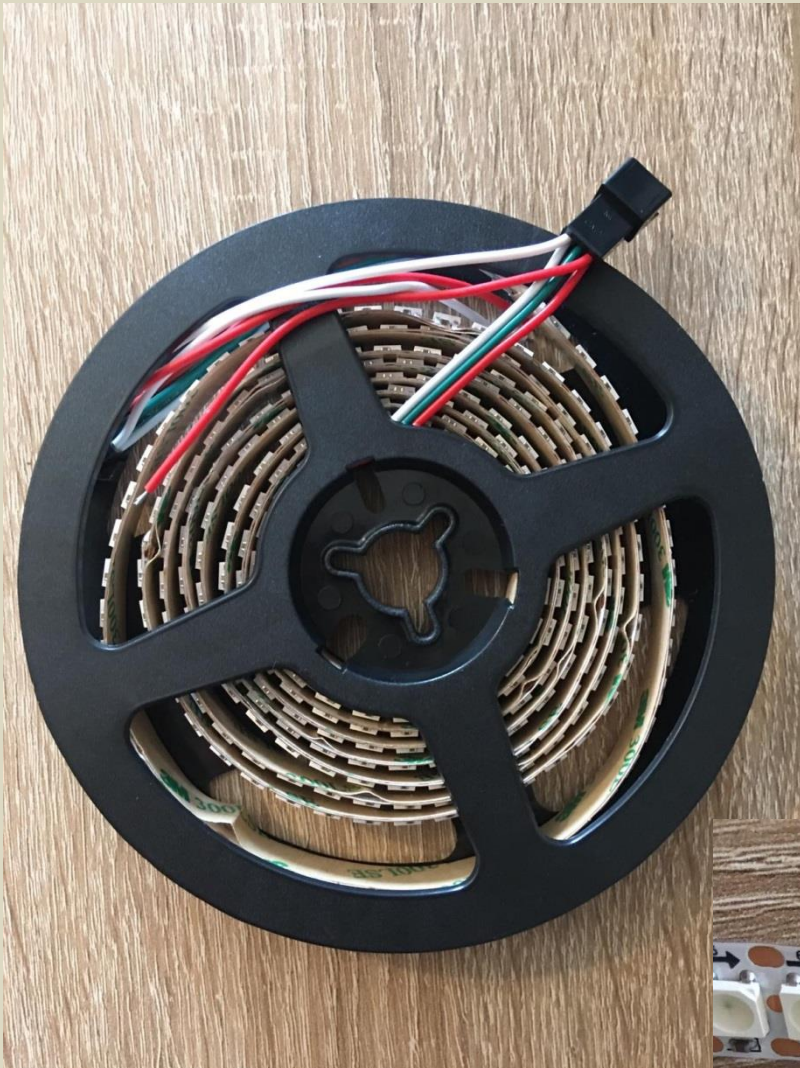




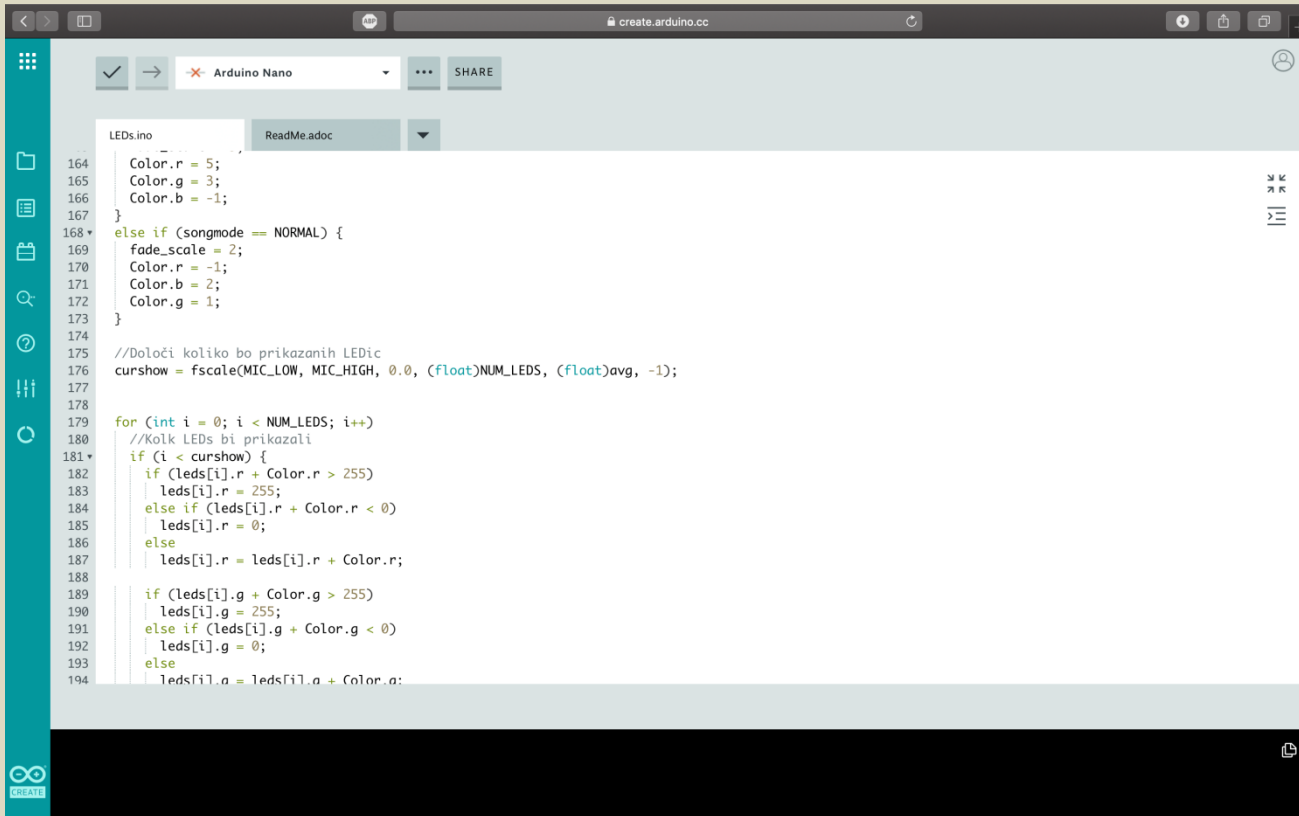
LED trak

- 30 LED/m
- RGB

- 144LED/m
- RGB



Softverska oprema:



The screenshot shows the Arduino Web Editor interface in a web browser. The browser's address bar displays 'create.arduino.cc'. The editor has a teal sidebar on the left with icons for file management, search, and other functions. The main workspace shows a C++ sketch named 'LEDs.ino'. The code includes comments in Slovenian and implements logic for controlling a series of LEDs based on a 'songmode' variable and a 'curshow' index. The code is as follows:

```
164 Color.r = 5;
165 Color.g = 3;
166 Color.b = -1;
167 }
168 else if (songmode == NORMAL) {
169   fade_scale = 2;
170   Color.r = -1;
171   Color.b = 2;
172   Color.g = 1;
173 }
174
175 //Določi koliko bo prikazanih LEDic
176 curshow = fscale(MIC_LOW, MIC_HIGH, 0.0, (float)NUM_LEDS, (float)avg, -1);
177
178
179 for (int i = 0; i < NUM_LEDS; i++)
180   //Kolk LEDs bi prikazali
181   if (i < curshow) {
182     if (leds[i].r + Color.r > 255)
183       leds[i].r = 255;
184     else if (leds[i].r + Color.r < 0)
185       leds[i].r = 0;
186     else
187       leds[i].r = leds[i].r + Color.r;
188
189     if (leds[i].g + Color.g > 255)
190       leds[i].g = 255;
191     else if (leds[i].g + Color.g < 0)
192       leds[i].g = 0;
193     else
194       leds[i].g = leds[i].g + Color.g;
```

Arduino Web editor

- C++
- FastLED.



<https://www.youtube.com/watch?v=5WP2Tjt9o2U>