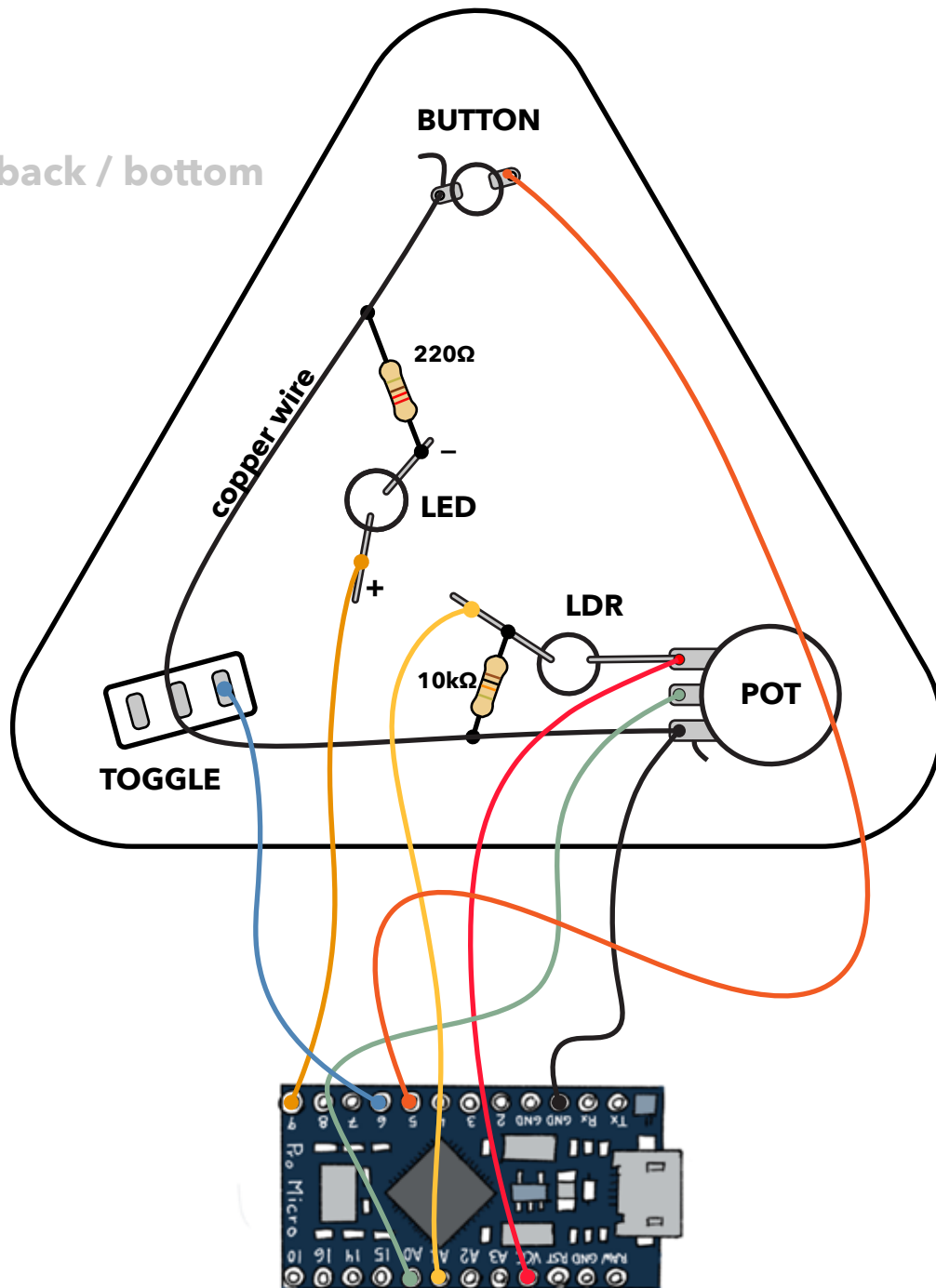


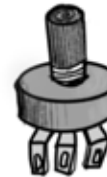
back / bottom



BUTTON momentary push button (digital input)



TOGGLE latching switch (digital input)



POT potentiometer (analog input)



LDR light dependant resistor (analog input)

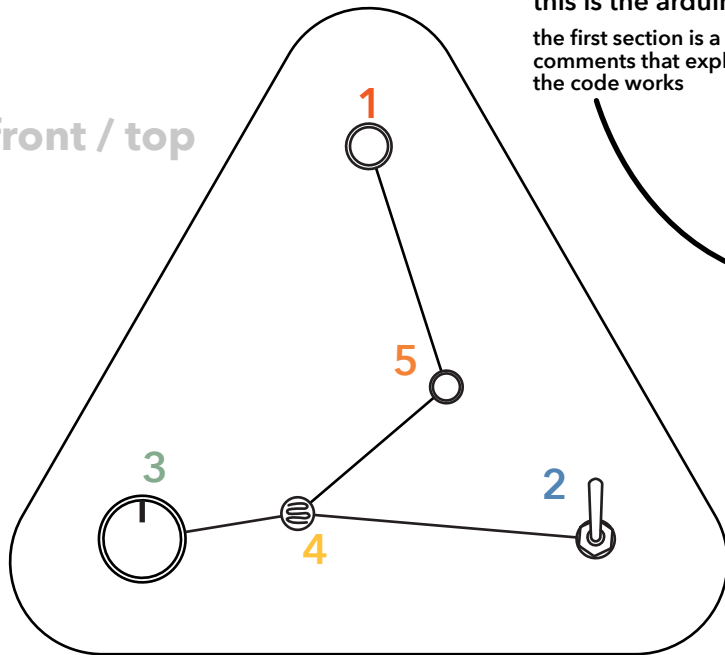


LED light emitting diode (digital output)



RESISTORS 10kΩ for the LDR and 220Ω for the LED

front / top



this is the arduino code
the first section is a block of
comments that explains how
the code works

the functional code starts here



1 BUTTON



5 LED
LIGHT EMITTING DIODE



2 TOGGLE



4 LDR
LIGHT DEPENDANT RESISTOR



3 POTENTIOMETER (DIAL)

```
* Digital Inputs
* 1 momentary push button connects to pin 5 (midi note C4/60)
* connect one leg to the pin 4 and one leg to ground
* 2 toggle switch connects to pin 5 (midi note D4/62)
* connect one leg to the pin 4 and one leg to ground
*
* Analog Inputs
* 3 potentiometer connects to pin A0 (CC 10)
* 4 Light Dependant Resistor(LDR) connects to pin A1 (CC 11)
*
* Digital Output
* 5 LED connects to pin 9 (midi note E4/64)
*
* behavior =====
*
* 1 when button on pin 5 is pressed, a MIDI Note On message is sent for
* note C4 (midi note 60). When the button is released, a MIDI Note Off message is sent.
*
* 2 When toggle on pin 6 is switched, a MIDI Note On message is sent for note D4(62) .
* When the toggle is returned, a MIDI Note Off message is sent.
*
* 3 Turn the potentiometer connected to A0, continuous messages will be sent to CC 16
*
* 4 The light dependant resistor connected to pin A1 will send continous messages to CC 17
*
* 5 An LED connected to pin 9 turns on and off with note E4 (midi note 64)
*
* ~ You can add buttons, LEDs and other sensors/actuators to support your ideas.
* Look at the Control_Surface examples (File > Examples > Control Surface) to learn how
* connect other components/ (PWM LEDs, LCD screens, encoders multiplexers, LED rings, etc)
*/
```

```
#include <Control_Surface.h> // Include the Control Surface library

USBMIDI_Interface midi; // Instantiate a MIDI over USB interface.

// NoteButton objects that send MIDI note events when a button or toggle is pressed/released
NoteButton buttons[] {
  { 5, MIDI_Notes::C(4) }, // Push button on pin 5
  { 6, MIDI_Notes::D(4) }, // toggle switch on pin 6
};

// CCPotentiometer objects that send MIDI CC messages when an analog sensor is changed (0-127)
CCPotentiometer potentiometers[] {
  { A0, 0x10 }, // Analog pin (A0) connected to potentiometer, midi controller number (10)
  { A1, 0x11 }, // {Analog pin (A1)connected to LDR, midi ontroller number (11)}
};

// NoteLED objects receive midi note events from the computer to turn LEDs on and off
NoteLED leds[] {
  { 9, MIDI_Notes::E(4) }, // Pin of built-in LED, Note C4 on MIDI channel 1
};

void setup() {
  Control_Surface.begin(); // Initialize Control Surface
}

void loop() {
  Control_Surface.loop(); // Update the Control Surface
}
```