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Department of Electronics Engineering

Your Project Title

Project Group Member Names

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VI sem,

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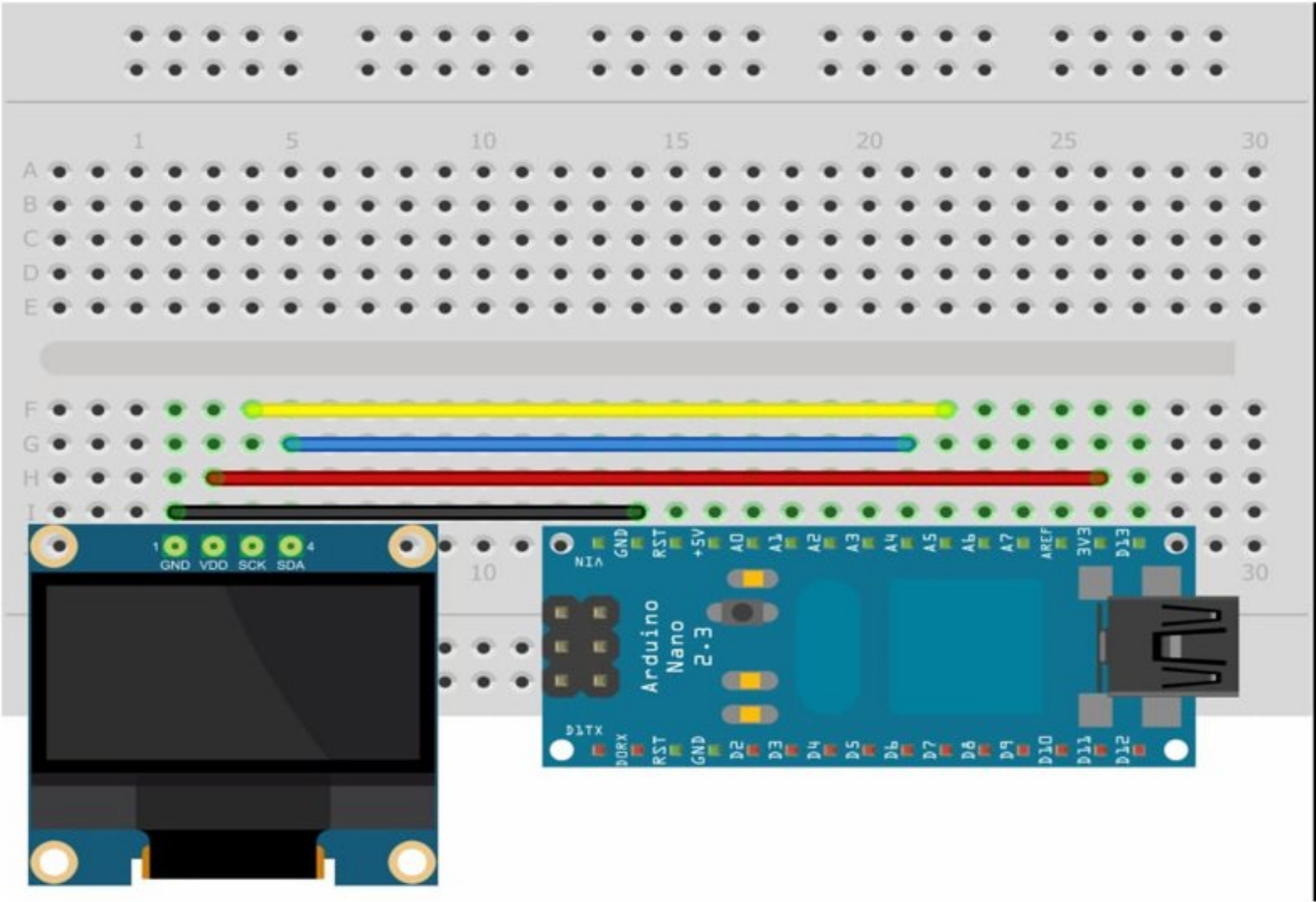
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Abstract: Here is the stopwatch displayed in the project we have used arduino nano and oled 0.96 display to keep a track on time. When we will give power supply to arduino nano through laptop we will get the time counter display on oled display and we can reset that stopwatch/timmer by pressing reset button on arduino nano.

Circuit and Working:

Fig. 1: project circuit diagram



Part List:

Table 1: Components

components	Part Number	Unit Price	Quantity	Total Price
Arduino nano	1		1	325
oled	2		1	325
Arduino nano cable	3		1	55
Total			3	705

Construction :

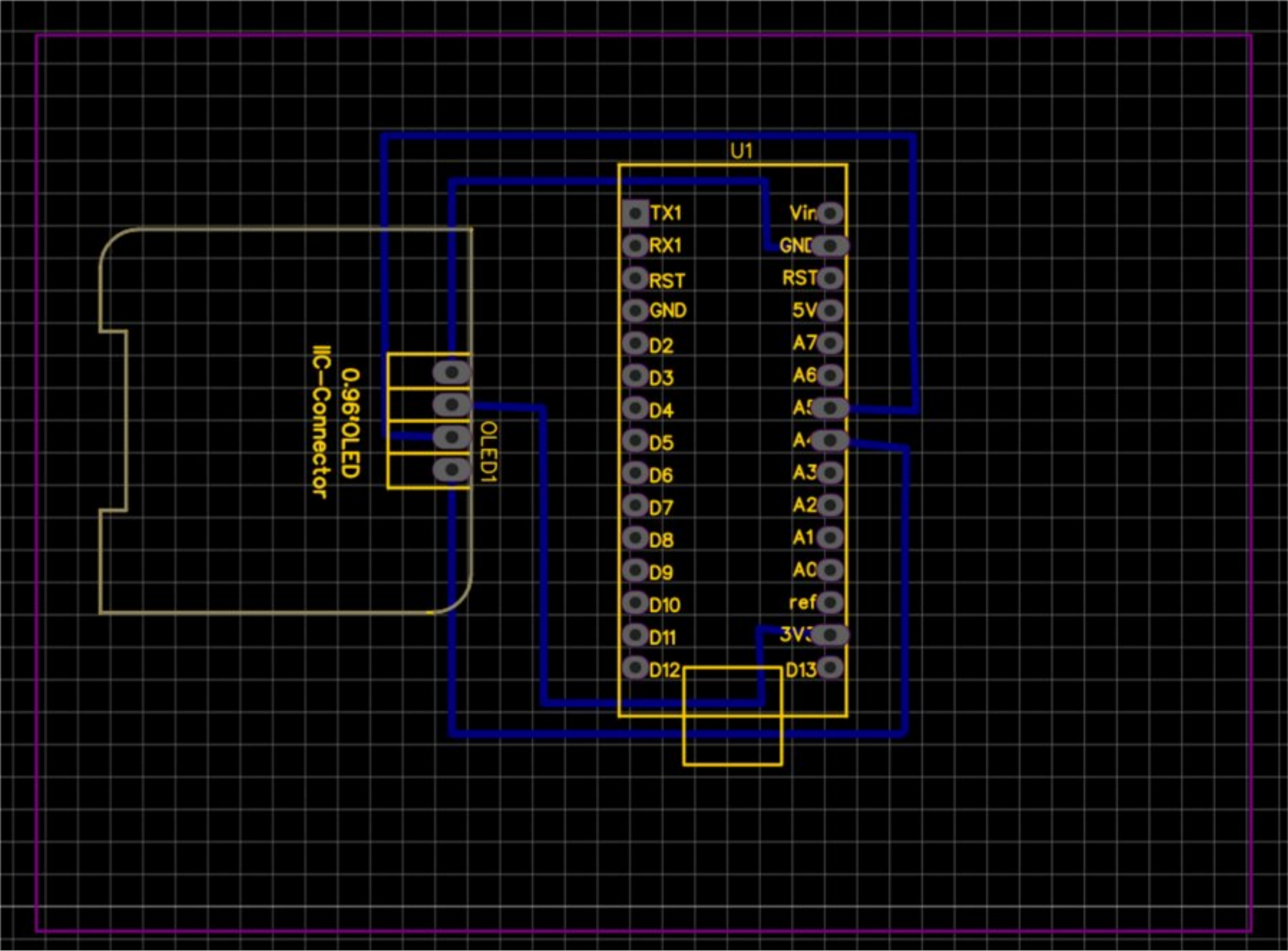


Fig. 2: Schematic

Table 2: footprints

S.No.	Componets	Footprint Name
1	ARDUINO NANO ATMEGA328P (MINI USB) Copy	ARDUINO NANO ATMEGA328P (MINI USB) PCB
2	0.96OLED_4P_MODULE_JX	0.96OLED_4P

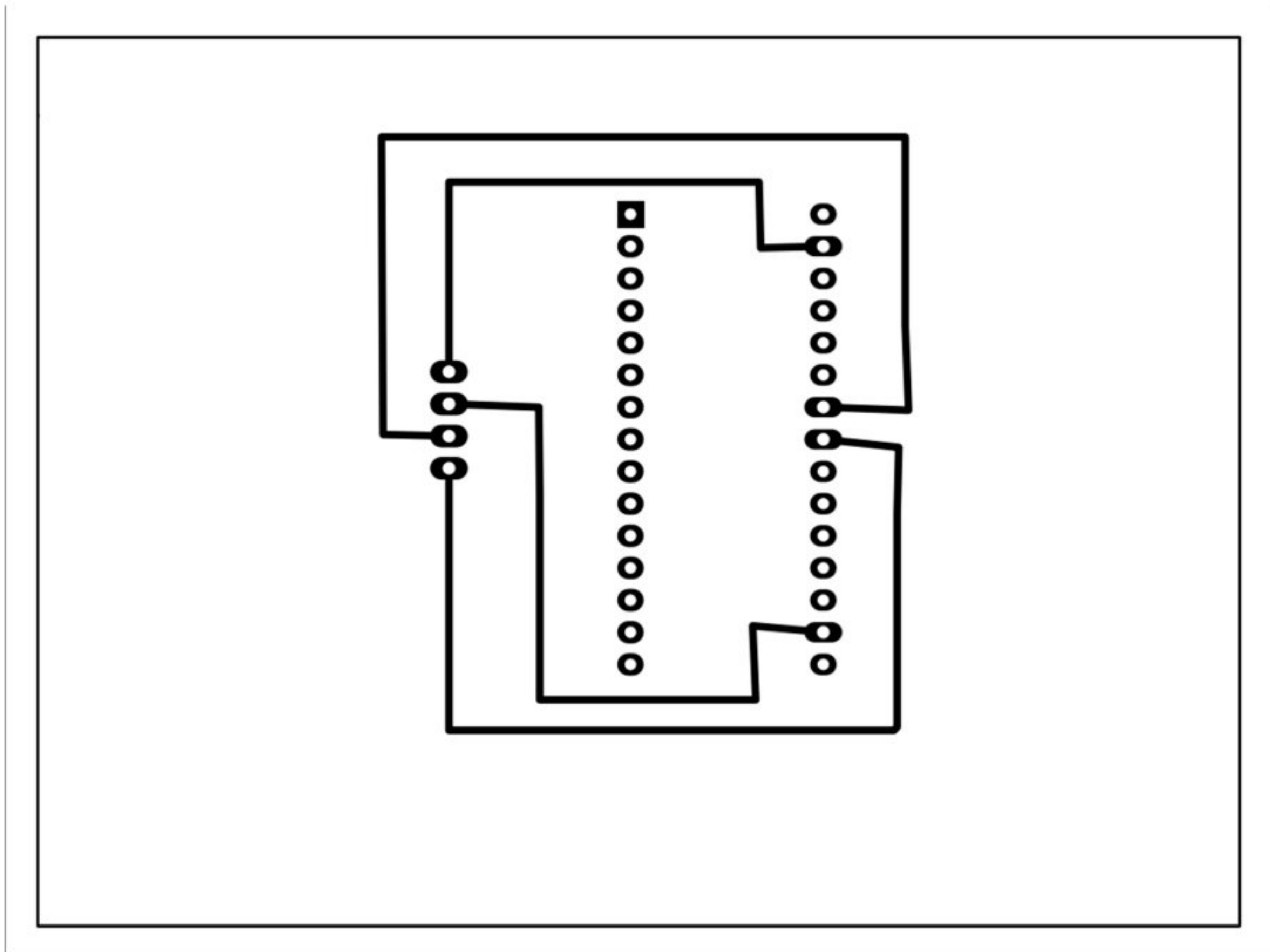


Fig. 3: PCB Layout

Program: - (if any)

```
#include <Adafruit_SSD1306.h>

#define SCREEN_WIDTH 128
#define SCREEN_HEIGHT 64
#define OLED_RESET -1

Adafruit_SSD1306 display(SCREEN_WIDTH, SCREEN_HEIGHT, &Wire, OLED_RESET);

void setup() {
    display.begin(SSD1306_SWITCHCAPVCC, 0x3C); // Initialize the OLED display

    display.clearDisplay();
    display.setTextColor(WHITE);
    display.setTextSize(2);
}

void loop() {
    display.clearDisplay();

    // Get current time
    unsigned long currentTime = millis();
    int seconds = (currentTime / 1000) % 60;
    int minutes = ( (currentTime / 1000) / 60 ) % 60;
    int hours = (currentTime / (1000 * 60 * 60)) % 24;

    // Format the time as a string
    String timeStr = String(hours) + ":" + (minutes < 10 ? "0" : "") + String(minutes) + ":" + (seconds < 10 ? "0" : "") + String(seconds);

    // Display the time on the OLED display
    display.setCursor(0, 0);
    display.println("Stop Watch");
    display.println(timeStr);
    display.display();

    delay(1000); // Update the time every second
}
```

Testing:

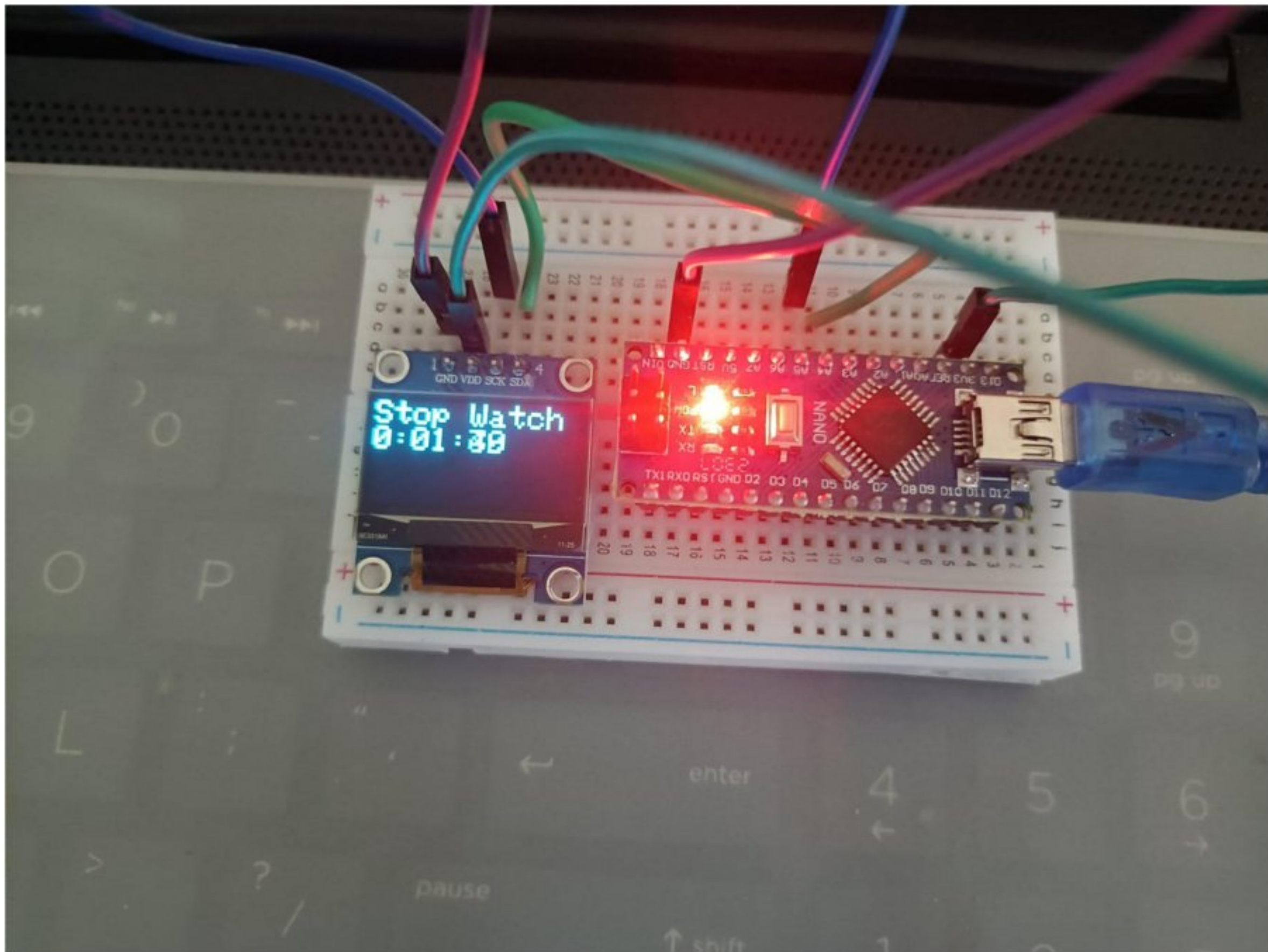


Fig. 4: Photograph of your project with output

Applications:

- **Stopwatches are used to measure elapsed time. They are often used in sports, such as track and field, to measure the time it takes for an athlete to run a certain distance.**
- **The stopwatch function is also present in many electronic devices such as wristwatches, computers, cell phones, and portable music players.**
- **Measures elapsed time much more accurately than is possible with the help of pressing the buttons.**
- **Digital electronic stopwatches are far more accurate timepieces than mechanical because of their crystal oscillator timing element.**