BÎRGU MARINA-CRISTIANA - 1221A

DIGITAL HOURGLASS

Introduction

In ancient times people used Hourglass to measure the passage of time. Hourglass is a simple device that consists of two glass bulbs that are connected vertically with a narrow neg and that allows the flow of sand or fluid from top to bottom. Most of the time the flow duration is about one hour that's why we call hourglass.

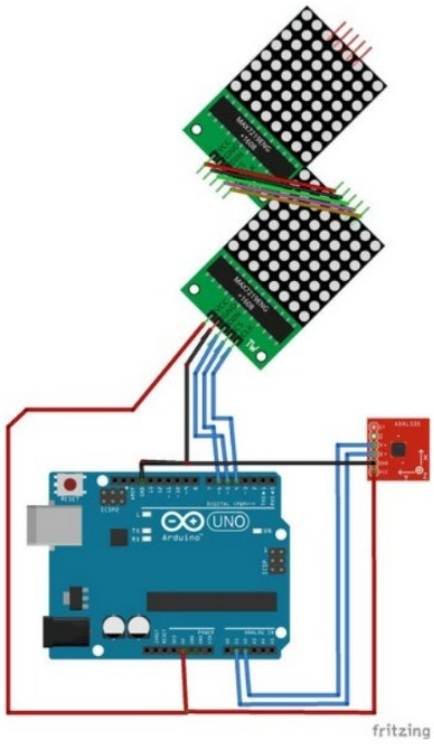
Description

First, we need to cascade two led matrices together that is we need to connect the Dout pin of the first matrix to the Din pin of the second matrix also connect the clock pin to clock and ds to ds. I used enameled copper wire to connect modules together. Also, I connected wires to Arduino and the accelerometer. Connect the VCC of the led matrix and accelerometer to the 5v pin of Arduino. Then connect the ground pins of Arduino, Ledmatrix, and accelerometer together. After that connect the CLK pin to Arduino D4 din to D5 and DS to D6. Connect the x-axis out of the accelerometer to A1 and Y-axis to A2.

Hardware Design

Components:

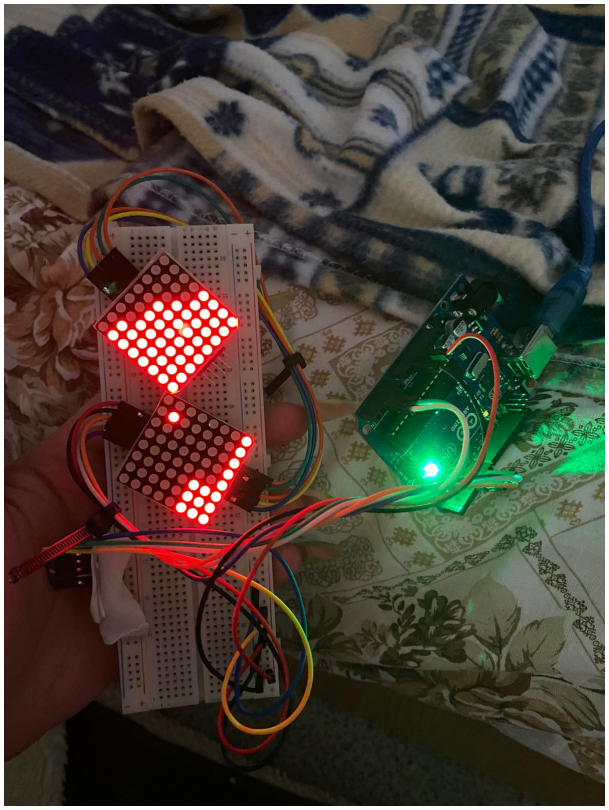
1. Arduino Uno
2. ADXL335 3 axis accelerometer
3. 2 pieces of 8*8 led matrix
4. Breadboard
5. Dupont Wires



Software Design

I worked in Arduino, C and C++.

Obtained Results



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Conclusions

I enjoyed working on this project and I am very happy because I found a creative way of using programming!