

instructables Arduino LED Matrix Display Instructions

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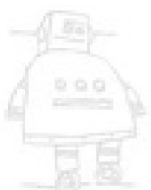


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Arduino LED Matrix Display



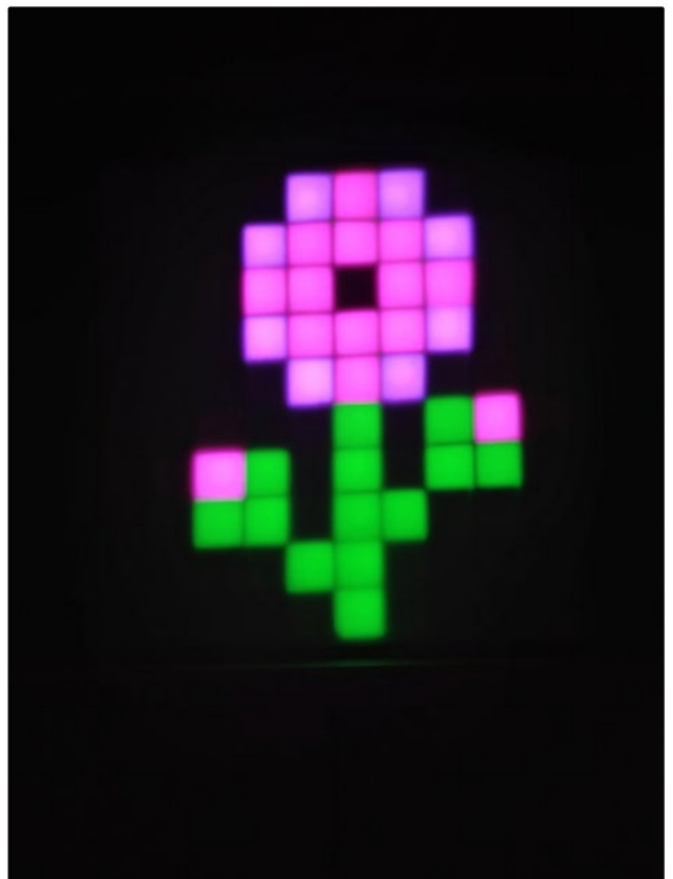
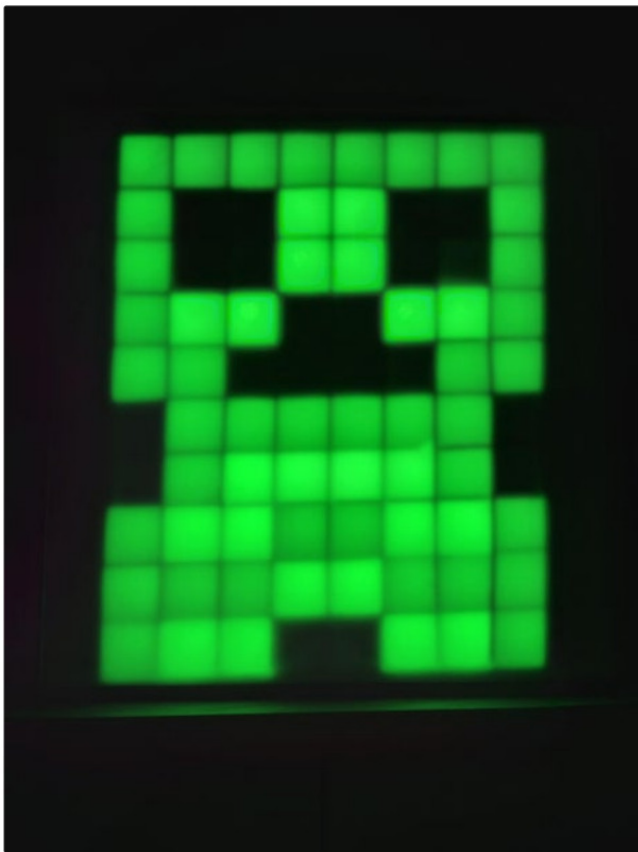
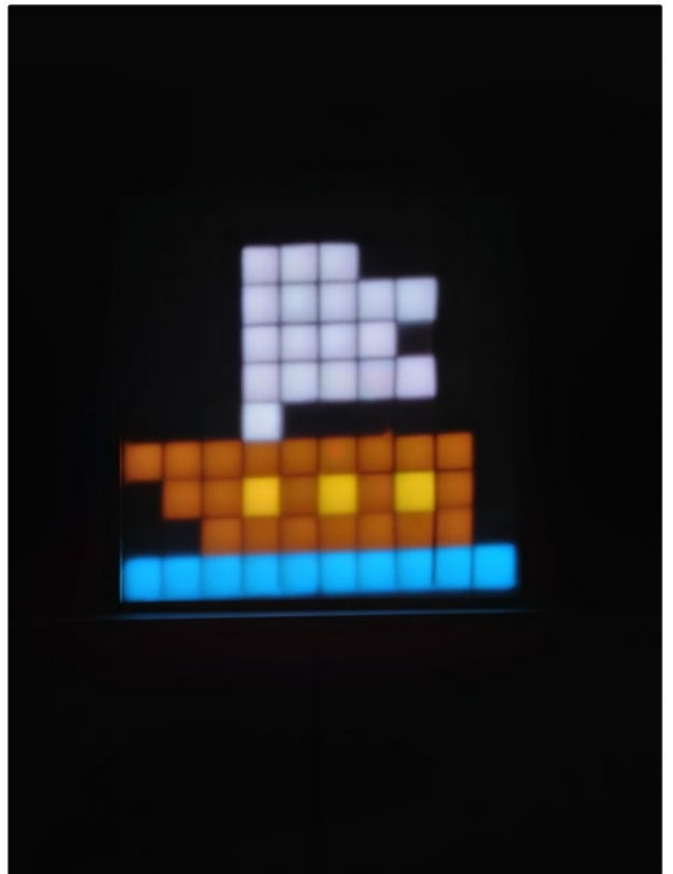
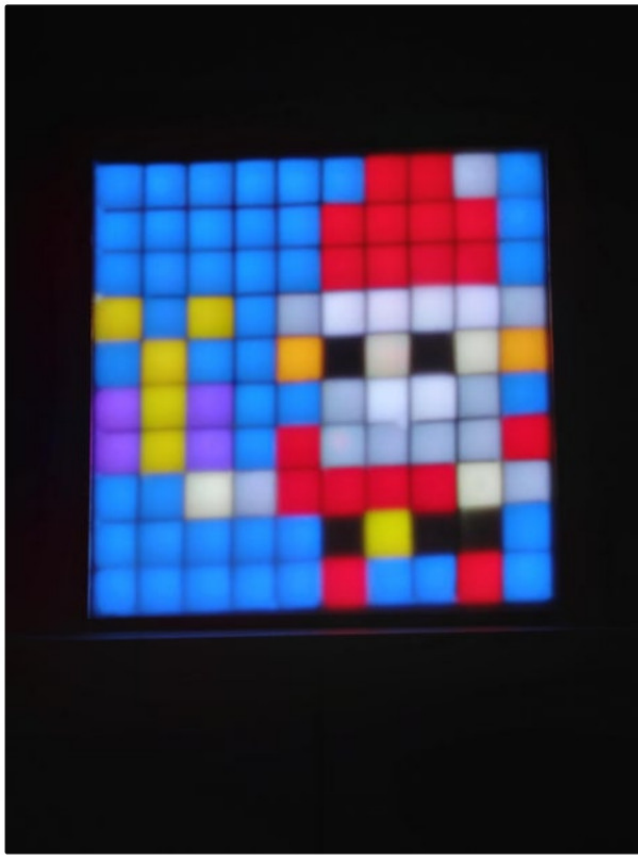
by [Giantjovan](#)

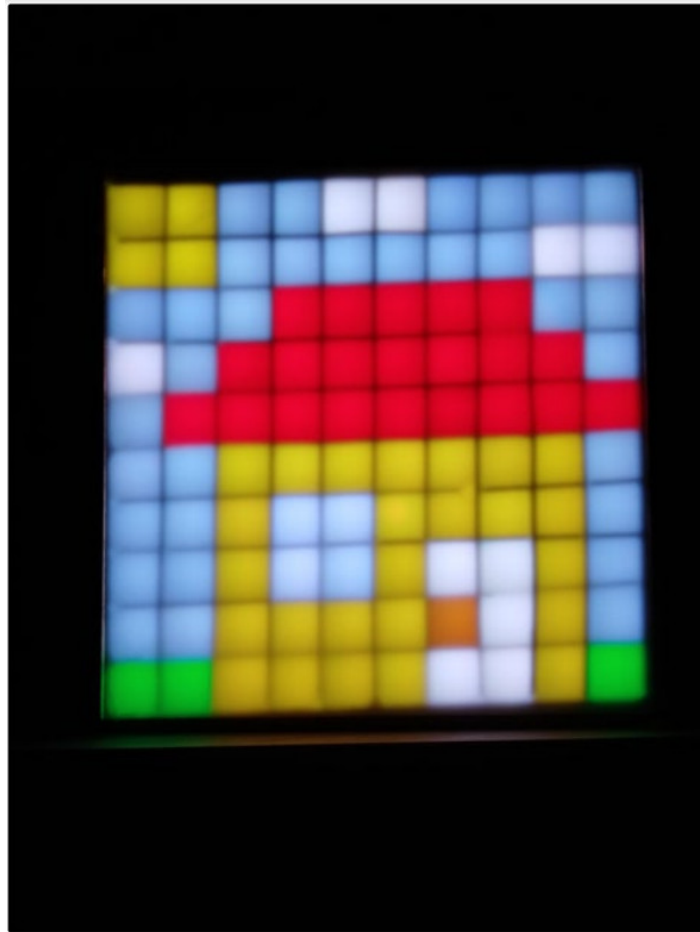
Recently I saw video of Great Scott, where he made 10×10 LED matrix using ws2812b RGB LED diodes. I decided to also make it. So now i will explain step by step how to make it.

Supplies:

- 100 LEDs ws2812b LED Strip, i made a mistake here. Better choose 96 LEDs per meter, insted of 144LEDs per meter.
- Wire about 20m
- Soldering Wire
- Cardboard
- Plexiglass
- Arduino (Nano is the smallest and best option)
- Cardboard
- Wood
- Glue

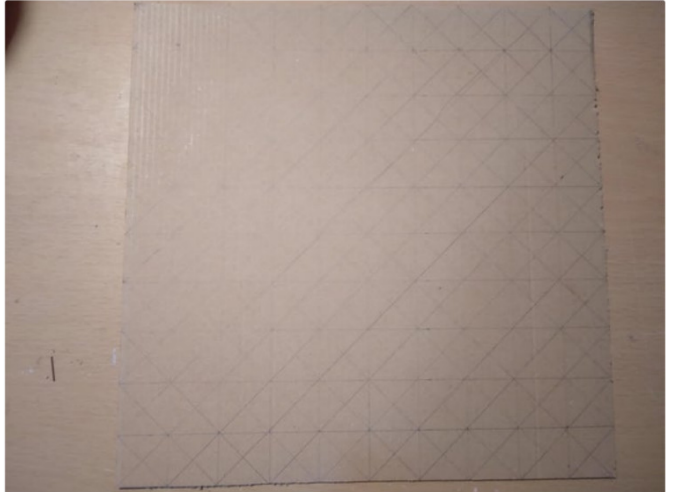
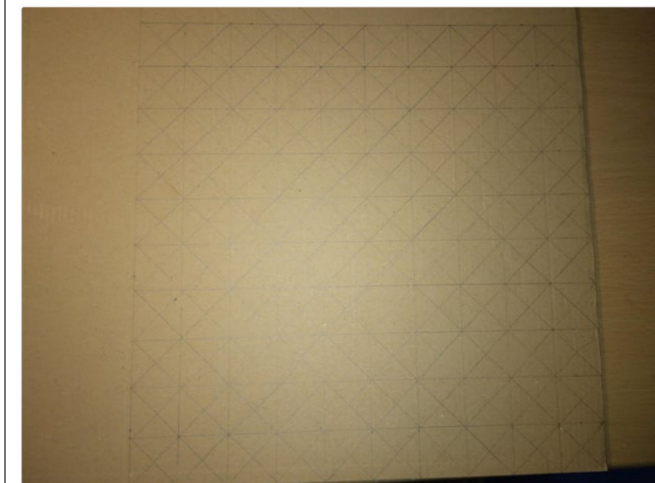






Step 1: First Step

Make small squares on the cardboard. Like I did!

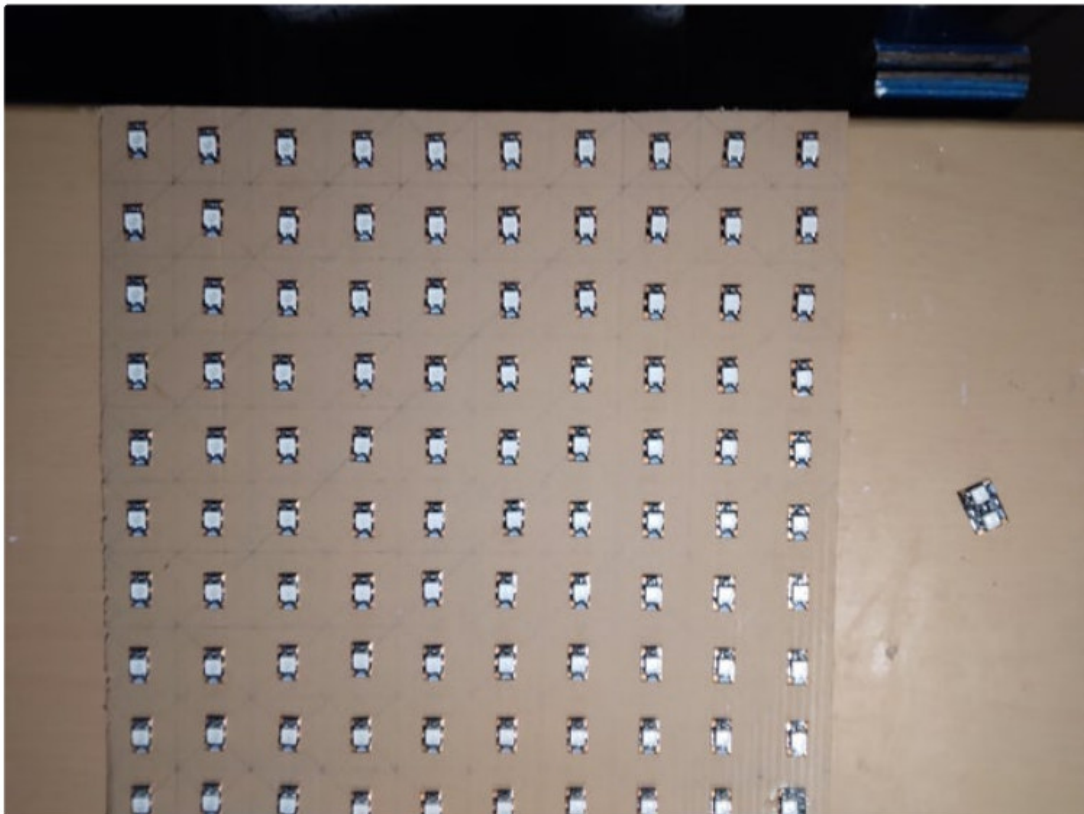


Step 2: Cut Strip

Cut strip...



Step 3: Glue Strip Like Shown

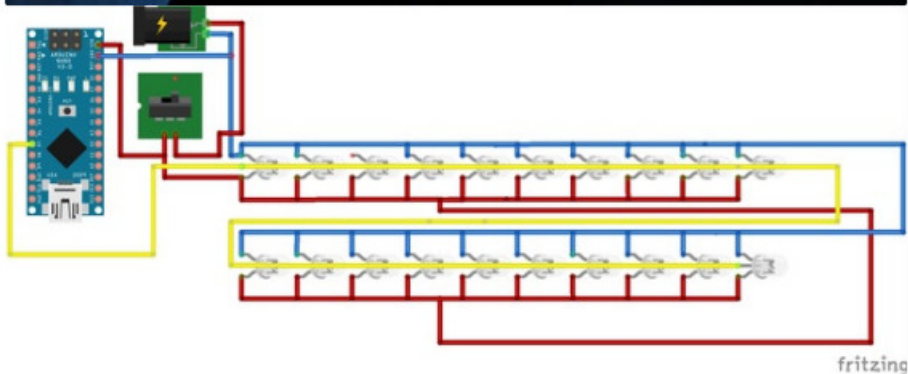
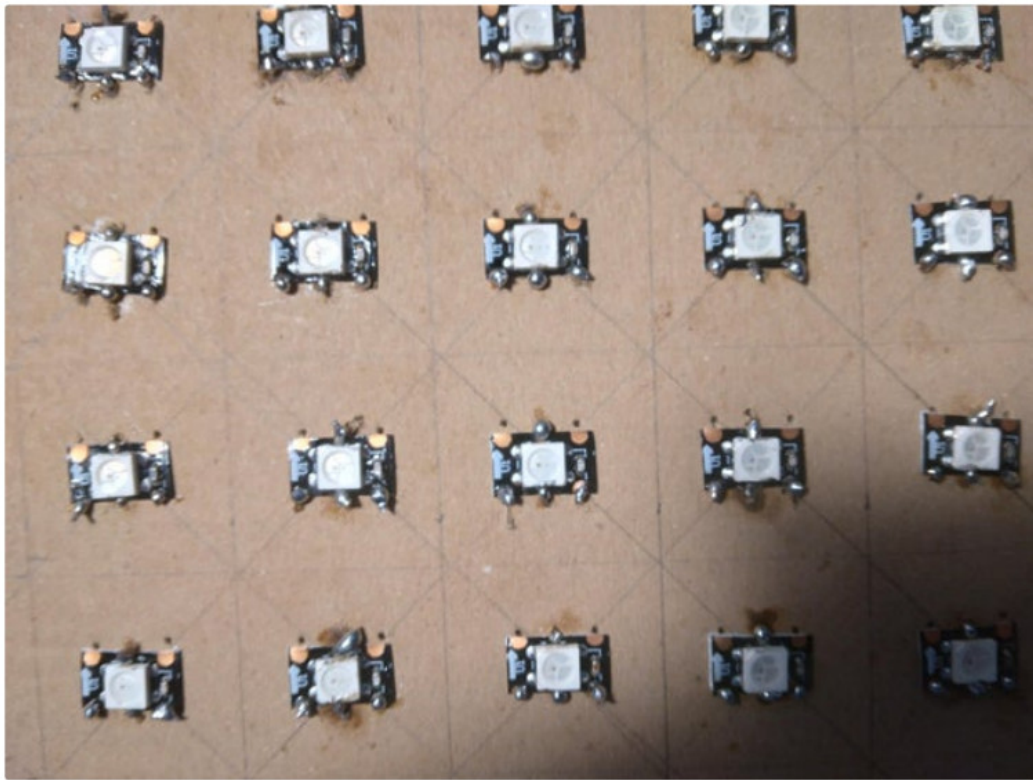


Step 4:

Soldering Part!

Solder strips like shown on circuit diagram.

Tip: Don't inhale soldering smoke, it is very bad for lungs. Instead make fan that will blow out smoke. On my prole you can also find that project!



Step 5: Testing

First you need to install libraries. Open Arduino IDE, Then go to Sketch, Include Library, Manage Libraries, Type Fast LED in search bar, than click install. You will also need to install Adafruit NeoPixel.

To test LEDs you will need to go to examples, Adafruit NeoPixel simple, you will need to change the number of LEDs in code and pin number. Click upload! If every LED light up all is good if not check soldering. If soldering is good and led don't work, replace it.

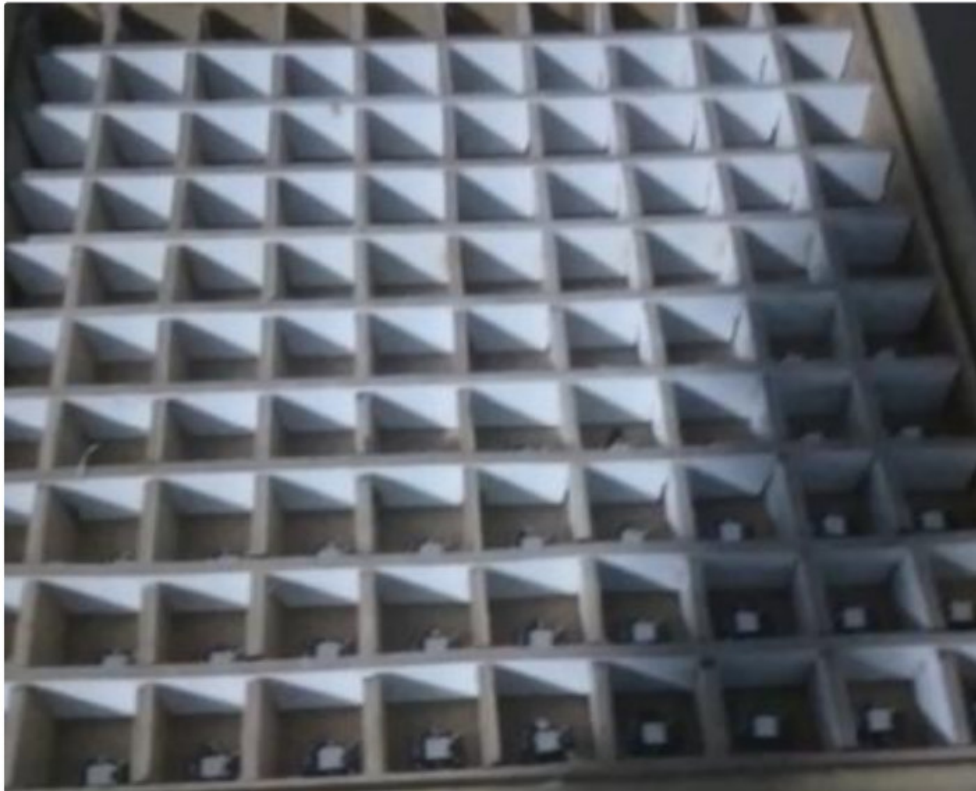
Step 6:

Making Box

You need to make box with your dimensions. Use wood, it is the best choice. Drill a hole for Arduino, power cable and switch.

Step 7: Grid

You will need to separate LEDs. You can do this by making grid using wood. This grid needs to be perfect, there can't be any mistakes (different height, width...). Good Luck with making grid. This step took me most of my time.



Step 8:

Finishing

Glue grid to the LEDs with some glue. Then put that LEDs in box you made. Glue Arduino, power cable and switch. Cut the plexiglass on appropriate size and put it on top of the box. Glue the plexiglass with some super glue. Test if everything works.

Step 9:

Making Animations

Download and unzip this file:

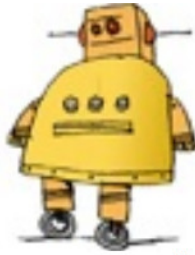
<https://github.com/TylerTimoJ/LMCS2>

Open the folder and go to LED Matrix Serial folder, and open Arduino code. Change the number of LEDs and pin in the code. Upload the code and close the Arduino IDE. Open LED Matrix Control software. Chose COM port and go to the draw mode in the upper left angle. Now you can draw. When you nish drawing go to the Save FastLED Code. Open the saved file and copy the code. Again go to LED Matrix Serial folder, and open Arduino code. In void loop section past the code of FastLED, and delete void serialEvent() and everything in it. Upload the code and you can now disconect Arduino and PC. You are now good to go.

Step 10: End


I am only 13 years old and my English are not the best, but I hope I hlepded you with making this project. Here is how mine look like. I added just 2 animations, but you can add many more. Bye!

<https://youtu.be/bHIKcoTS8WQ>







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Documents / Resources

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|---|--|
|  | instructables Arduino LED Matrix Display [pdf] Instructions Arduino LED Matrix Display, Arduino, LED Matrix Display, Matrix Display |
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References

-  [Yours for the making - Instructables](#)
-  [Arduino LED Matrix Display : 10 Steps \(with Pictures\) - Instructables](#)
-  [Giantjovan's Activity - Instructables](#)
-  [GitHub - TylerTimoJ/LMCS2: LED Matrix Control Software 2](#)

Manuals+.