



WARP: INTO THE ELECTROVERSE

Electronics Club Freshie Session 2021-2022

Hope you all enjoyed the session! Here are some problems you can solve to get a better understanding of Arduino and various sensors.

Submission Instructions:

*Note: Try to solve as many problem statements as you can and get featured on the **Electronics Club Instagram Page!***

If you have any personal projects that you would like to share, please do so too. We would like to see them all! We even encourage you to share them on the common WhatsApp Group too!

To submit your personal projects, make a folder in your google drive and add video explanations and code in your drive and share the link in the Google Form. Feel free to use Arduino hardware for the above tasks or your personal projects and upload a video of its working, if you have the relevant components with you.

Resources:

To submit, share the link for all your tinkers in this google form:

<https://forms.gle/51SoSYm3DFh1RU3JA>

To learn how to make your tinker public follow this youtube tutorial!

<https://www.youtube.com/watch?v=LiRCd59iJtw>

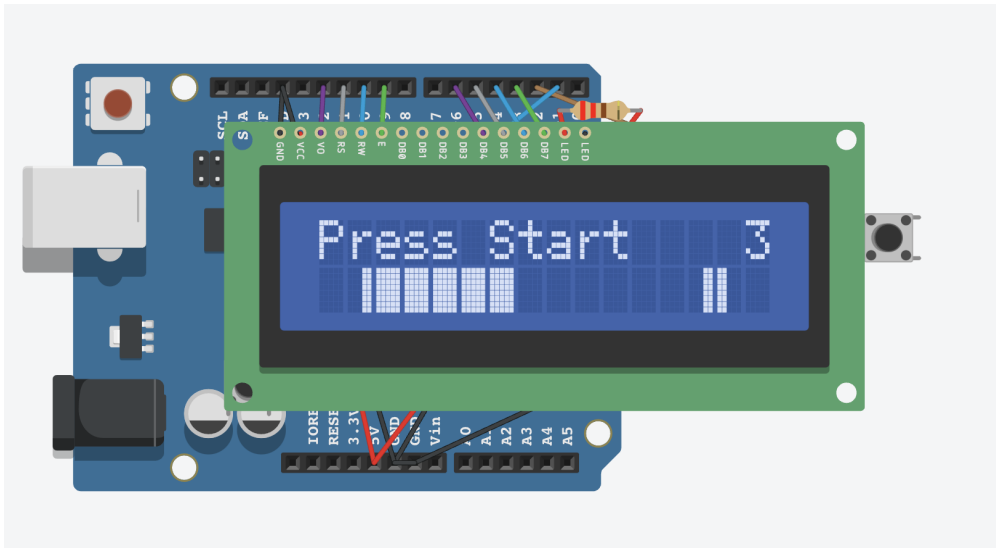
Submit your work by 09/01/2022



Problem - 1

Play this game and score about 60 points:

<https://www.tinkercad.com/things/6nSdspNbZXI>



Problem - 2

You go to a fair and want to play High-striker (strongman game). But just before your turn, the game malfunctions. To fix this, you have to Design a circuit using Arduino and a force sensor that imitates the game.

- The output should have a series of LEDs that glow up according to the amount of force that is applied.
- When maximum force is applied, a buzzer should ring

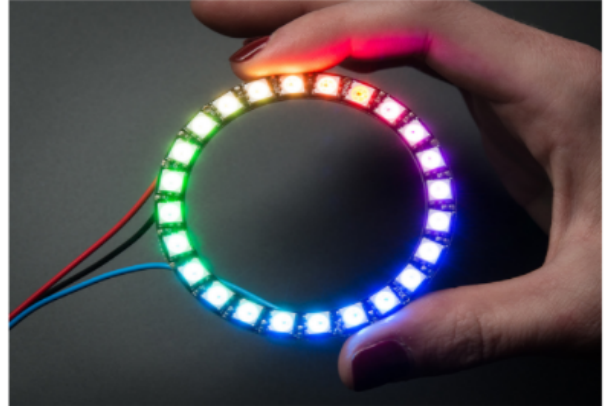
Bonus: Try using a neopixel LED strip and make it glow when maximum force is applied.





Problem - 3

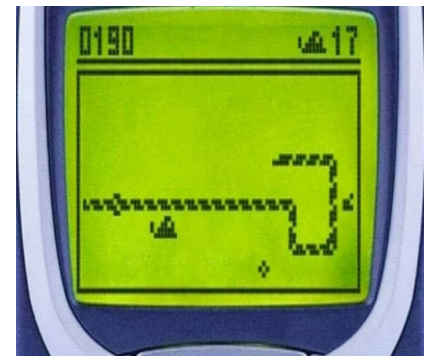
It's the holiday season and you are tasked with handling the music system for your family get-together. Unfortunately, the music system that you ordered got delayed and will surely not arrive in time for the party. So, you decide to make a circuit using the Neopixel LED Circular Ring to generate patterns and to play a festive song in the Piezo Buzzer to match the LED pattern. Try making it as creative as you can!



Problem - 4

You miss the old Nokia days and want to play a few of the classical games again. Unfortunately, you don't have a Nokia phone anymore. To play a game again, Design a circuit using Arduino, LED's (matrix) and push buttons/toggle switch to play the snake game.

You can build upon this circuit: [multiplexing](#)



ALL THE BEST!

Stay tuned for more information and surprises from our side! :)