

TUTORIAL FOR SCRATCH

Tron



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Disclaimer

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For the Best Viewing Experience

1. Turn off Print Outline:

In the top menu, click on **View** and **uncheck Print Layout**. There should not be any gap between the pages now.

2. Show Document Outline:

In the top menu, click on **View** and **check Show document outline** or press Ctrl + Alt + A.

Introduction

In this Tutorial, we will cover how to make a Tron game in Scratch. No programming experience is required.

Have fun learning and welcome to Lavner Camps!

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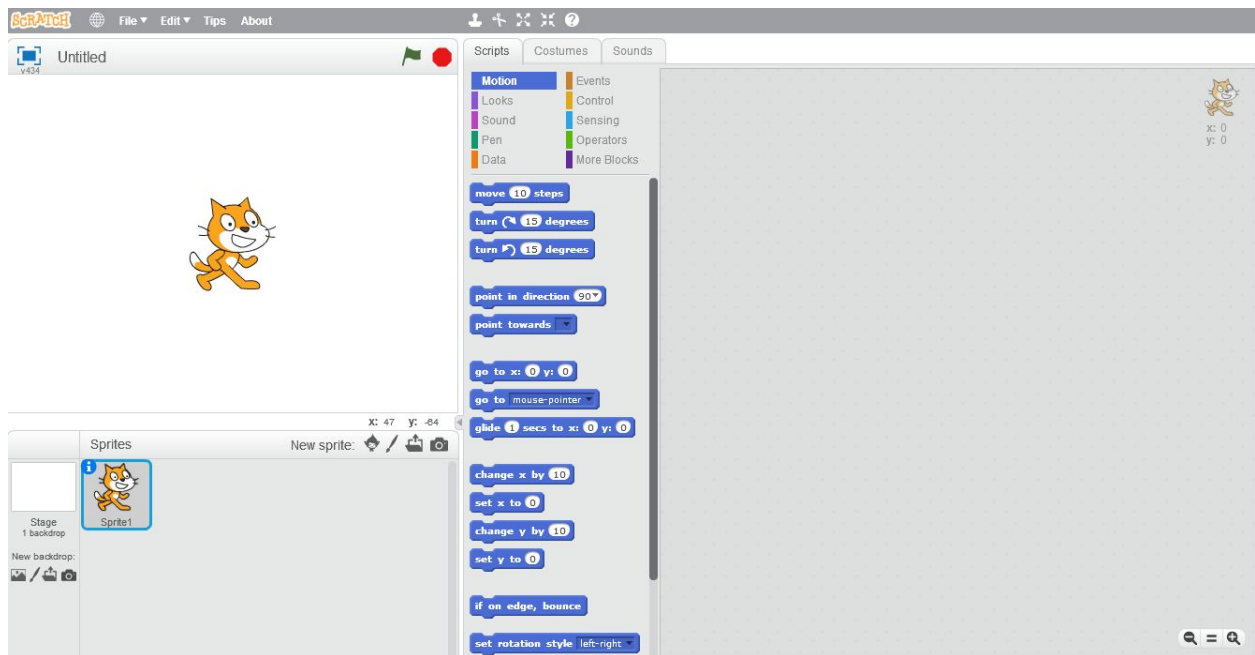
Phone: (610) 200 6264

Making a Tron Game

We will make a game called Tron Game. This is a two player game. There are 2 spaceships going around in different directions. When they move, they leave a trail behind in their color. If a spaceship touches the other spaceship's trail, they lose the game.

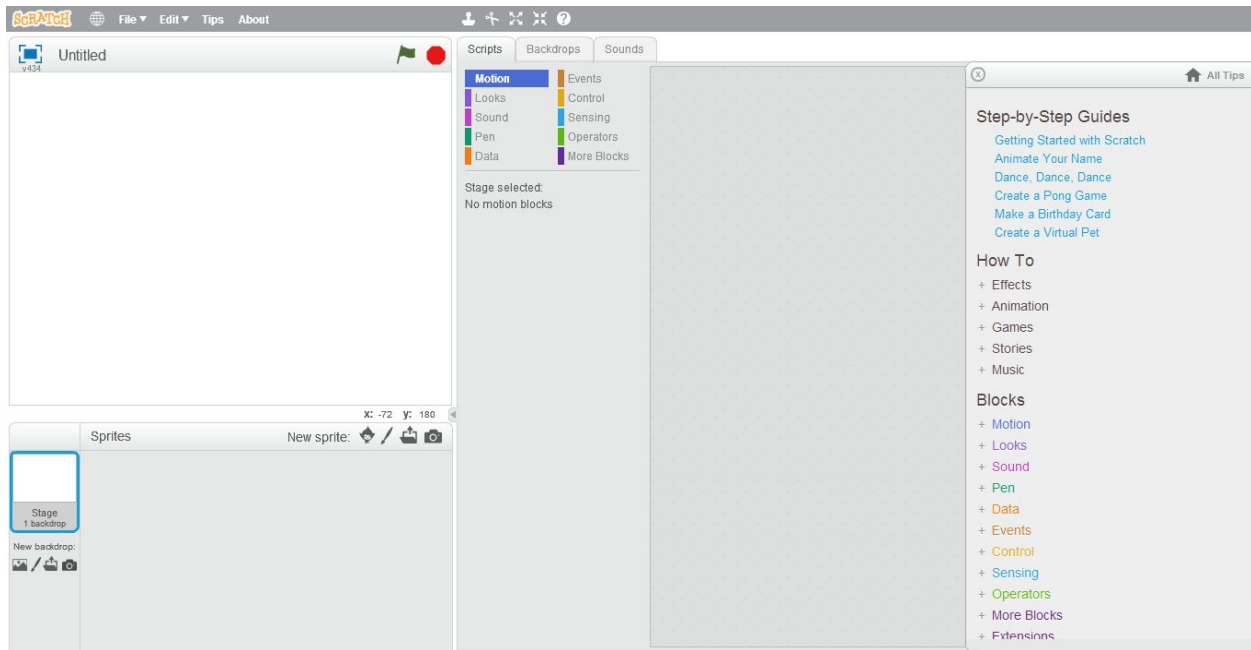
Start the game with “File” → “New”

You should have the usual blank template.

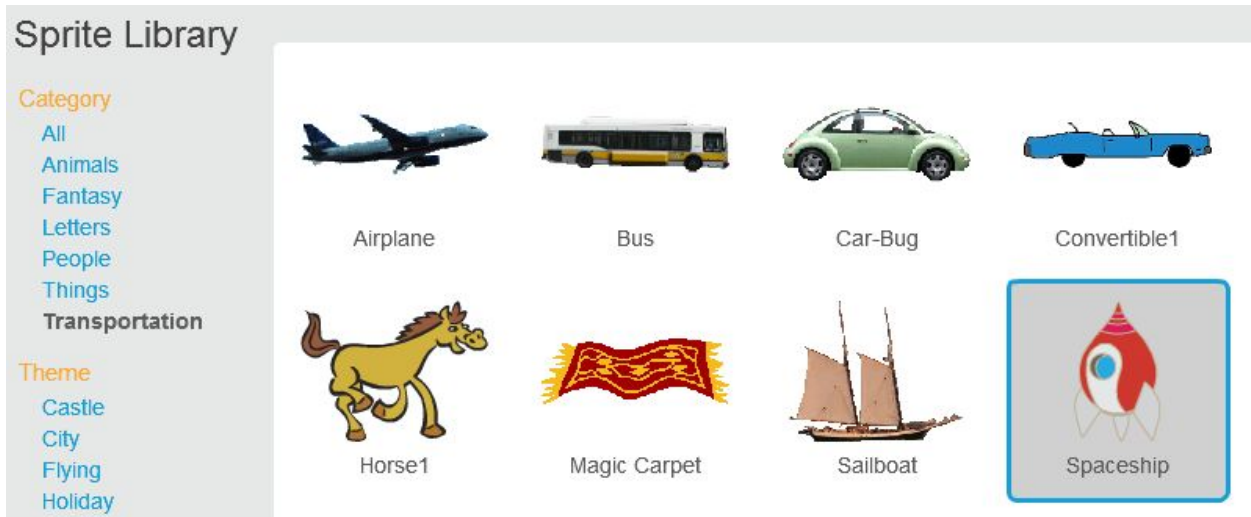


Now save your game. Saving often should become a habit.

We won't need the Cat in our game so go ahead and use the Scissor tool to delete it.



Next, click on **Choose sprite from library**. Select **Transportation** and then **Spaceship**

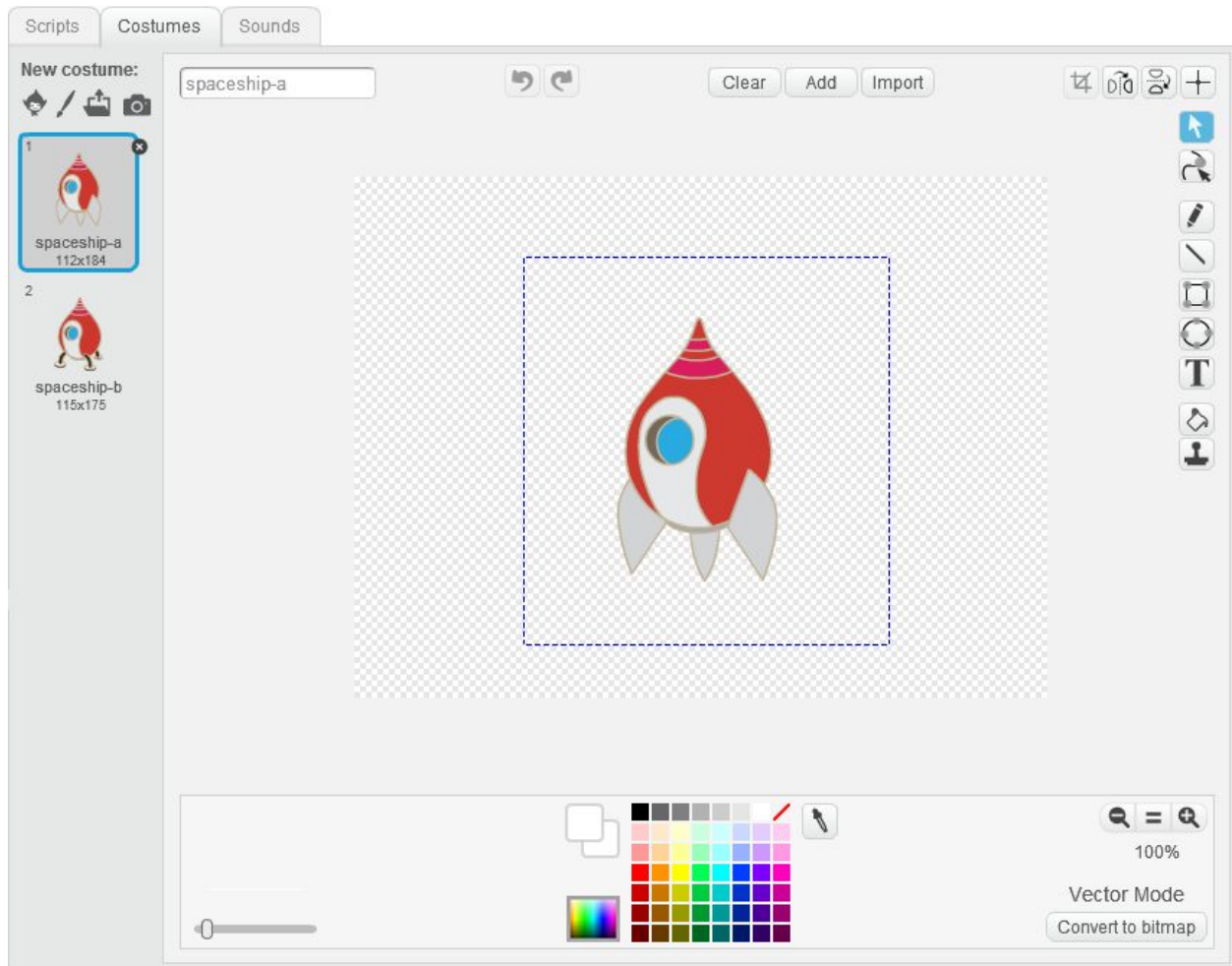


Your Sprite list should be like this

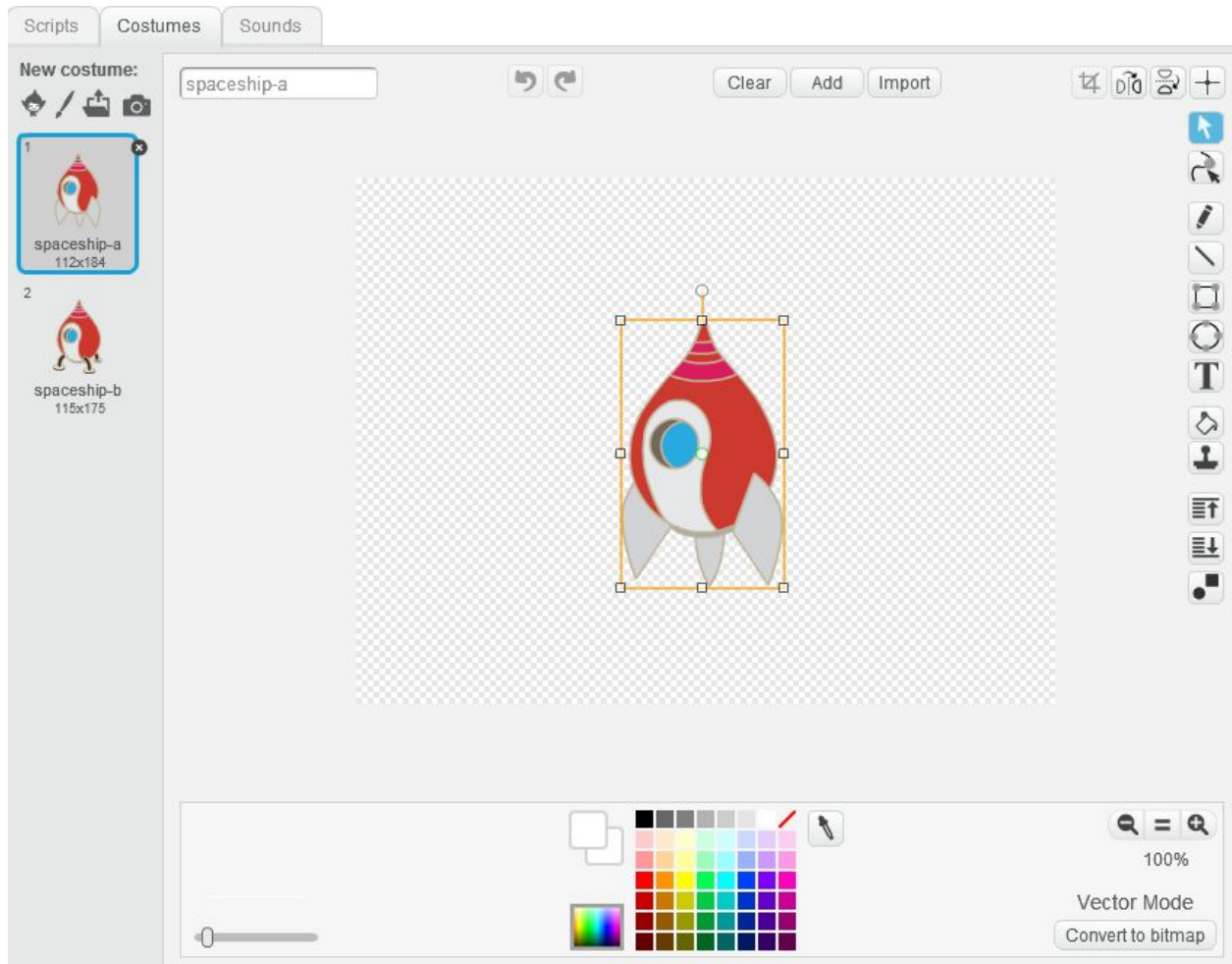


Now click on **Costumes** tab on the top of the screen

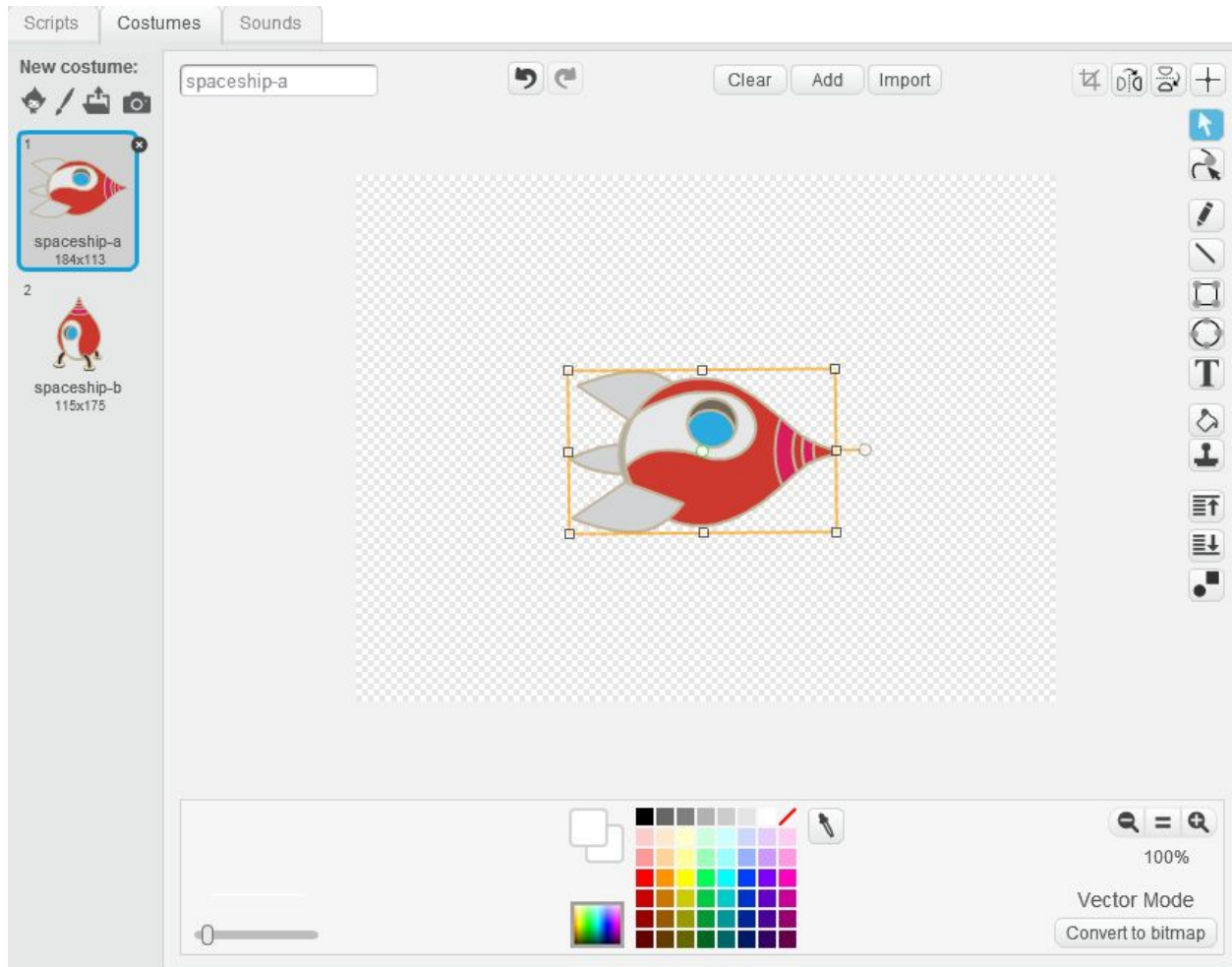
Draw a rectangle surrounding all the Spaceship like this



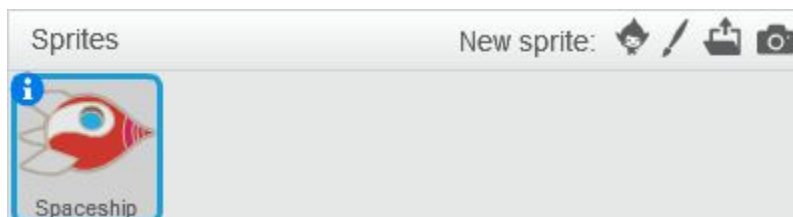
You should have this



Now click on the tip on top of the Spaceship and rotate the ship 90 degrees to the right. You will know when the mouse cursor changes its shape.



Now your Sprite list should be like this

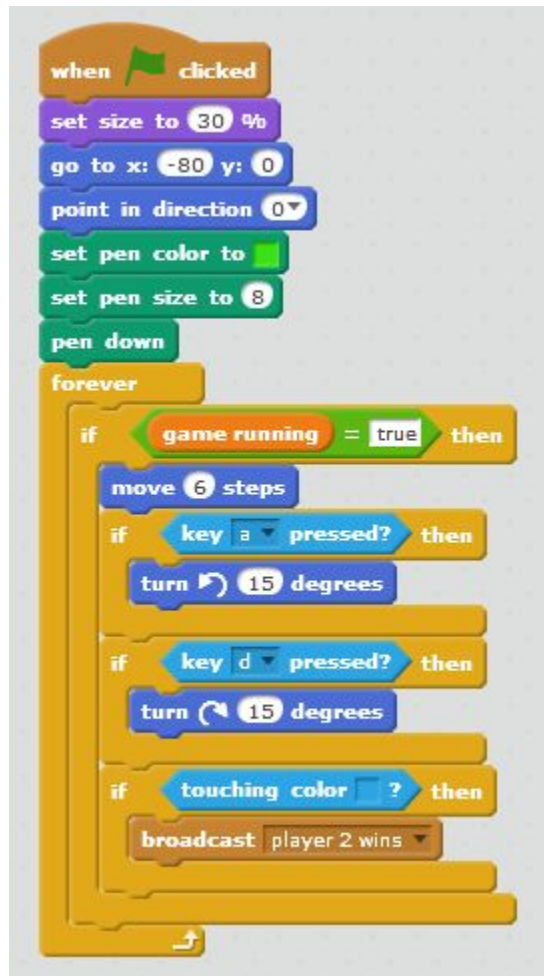


Coding Tron

In this game we will learn to use the **Pen tool**. The Pen tool allows sprites to draw paths on the screen. But before we add any code, let's go to "Data" and make a new variable called "game running".



Now go ahead and add in the following code



Let's take a look at this from top to bottom. When the green flag is clicked, we will set the ship size to 30%, move it to its original position, point it upward, set pen color to "Green", set pen size to 8 and have the pen down (drawing mode). Then we will start the forever loop, in the loop we will check if the game is running using variable "game running". If it is, we will have the ship move 6 steps. If player 1 moves left (pressing 'a') or right (pressing 'd'), we will rotate the ship accordingly. If the ship touches the color "Blue" (from player 2), we will broadcast the event "player 2 wins".

You can try running the game to test this out a little. Obviously there is only one ship right now, but it's good to test your game often as you work.

You should see something like this:

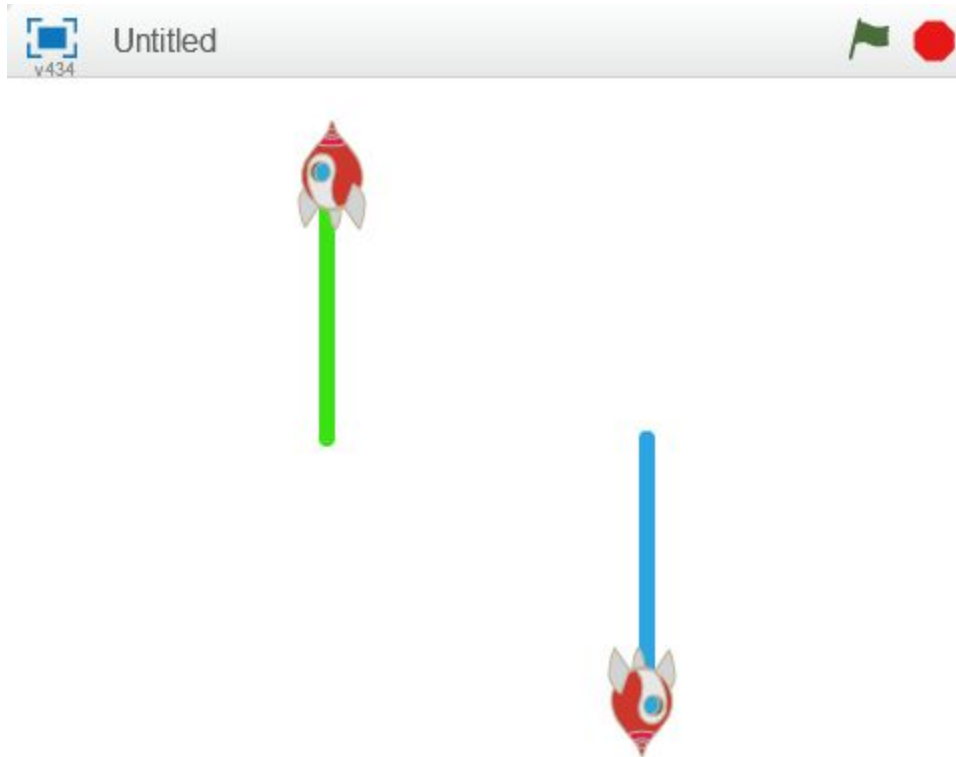


Now let's add some messages for winning and losing!



Feel free to customize these however you want.

Your screen should be similar to this when started



Now, click on the “Stage” and add in the following code



Great, now you're done with the Tron Game. Congratulations!

Addons for Tron

Now that you have completed Tron, it is the time for some addons to your game to make it more interesting and challenging.

You can try some suggestions below or make up your own. The possibilities are endless.

Some suggestions for addons:

- Add boost up sprites. For example, something that will give you extra speed or allow you to move through your opponents lines temporarily
- Add a third rocket with a different color
- Add Sounds, Music to your game

Always remember: have fun!

Extra Levels for Tron

To create extra levels, you just need to make new backdrops and reset the pens and the rocket positions.

You should make at least 3 extra levels. Be creative!