

# Texas Workforce Commission, Girl CodeRunner @ UTSA

This handout is also available on this weblink: [https://tiny.cc/twc\\_day3](https://tiny.cc/twc_day3)

**Introduction to Scratch, getting started**  
**Basics of gaming – sprites and clickable actions**  
**Challenge: Create an educational game**  
**Challenge: Create a game of your choice**

## Task 0: Introduction


Welcome to the 3rd day of this 5-day camp! Today we will learn about creating computer games.

**PRIZES:** All girls who attend at least 4 out of 5 days will win a prize and a certificate. To get the prize and certificate, you will need to be present on the 5th day. You will also get tickets for completing the activities on each of the days. At the end, you will put all tickets in the box (only if you have attended 4 out of 5 days) and draw out two tickets for a grand prize — chromebook (a laptop/tablet). Note that getting more tickets improves your chances of winning the grand prize.

Have you wondered how video games are created and who creates them? Open internet explore or any other browser and go to “google.com”. Now search for “how are video games made” and “game engineer”. Discuss with your team on what you learnt.

**Assignment 0: Call and discuss with the student assistant what you found out.**

## Task 1: Introduction to Scratch, getting started

Open Scratch by clicking on the link shown next,  .

Now click on the following tutorial link

<https://scratch.mit.edu/projects/editor/?tutorial=all> and go to “Getting started” tutorial. Now follow the video and reproduce the tutorial.

**Assignment 1: Follow the video and show your creation to the student assistant.**

## Task 2: Basics of gaming – sprites and clickable actions

First we will go through a number of tutorials and then put the knowledge to practise by doing an example. Use the following hyperlink to get to a tutorials page and then click on the tutorials mentioned below. <https://scratch.mit.edu/projects/editor/?tutorial=all>

1. “Add a sprite”, shows how to choose a sprite (a character)
2. “Add a backdrop” shows how to add a backdrop
3. “User arrow keys” shows how to use arrow keys to move a sprite.
4. “Add effects” shows how to change the color, roll, etc.

5. “Make music” shows how to create music.

Can you make a single animation that uses at least 4 of the 5 video tricks mentioned above? You should have some element of clickable action, that is, something happens when either the mouse button is pressed or sprite is clicked. For example, if you choose an alien for the sprite you can choose space to be the backdrop. Then you play music as the alien is pressed and the alien moves around

**Assignment 2: Create your own clickable animation and show it to the student assistant.**

## Task 3: Create an educational game

First we will go through two tutorials and then put the knowledge to practise by doing the challenge. Use the following hyperlink to get to a tutorials page and then click on the tutorials mentioned below. <https://scratch.mit.edu/projects/editor/?tutorial=all>

1. “Make a clicker game”
2. “Animate a character”

Your goal is to make an educational game aimed to teach pre-school kids. For example, number or counting or colors or alphabets. First talk with your group members. Then decide the game you would like to create. Then brainstorm the details

**Assignment 3: After you have a clear idea, discuss the idea with the student assistant.**

After the student assistant approves the idea, create the educational game.

**Assignment 4: Call the student assistant and show it to him/her.**

**Note for the student assistant:** Use the camp log in to [scratch.mit.edu](https://scratch.mit.edu) and upload the project on scratch. After uploading is complete please tell the team to keep track of the project link, that is, for the scratch link, <https://scratch.mit.edu/projects/299017026/>, just keep a track of the project number 299017026, as we will need it on the WebDesign day.

## Task 4: Create a game of your choice

The final task is to create a game of your choice. Your goal is to create a fun game for others to play. Discuss what game you would like to create including things such as the characters, the tasks, the interaction between the character and the user (e.g., key press), and how points will be awarded. You can also search the internet for games. For each game consider the amount of details you will have to include to make the game and keep the game simpler in the interest of time. Once you have decided the game

**Assignment 5: After you have a clear idea for the game, discuss it with the student assistant.**

Once the game is approved, create the game using scratch. After you are done, invite your friends to play the game and improve on it as needed

**Assignment 6: Call the student assistant and show it to him/her**

**Note for the student assistant:** Use the camp log in to [scratch.mit.edu](https://scratch.mit.edu) to upload the project and give the details about the scratch project (the 9 digit number at the end of the link) to the team members for future use.