

Lunar lander game - Planning document

What will the game do?

I want to create a lunar lander game with a rocketship that is able to fly up using the spacebar key, in order to conduct a safe landing. I also want the game to either fail or succeed depending on the player's ability to control the thrusters of the rocketship.

What mechanics will I need?

- The rocket should be able to fall with gravity
- The rocket should be able to fly upwards when pressing the spacebar
- You should be able to click through the different states of the game
- The game should be able to restart after the result screen

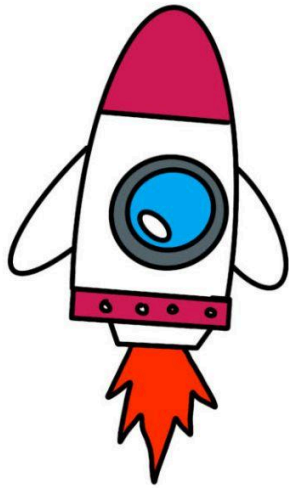
What do I need to style?

- A cute looking rocketship
- A starry background just like in the lecture
- A moon surface with craters in it

How will I write the code?

1. I will start by styling the rocketship itself and make it both moveable through x and y, but also scalable with a variable. Write the code for the starry background, code will be taken from *chapter 15: Example - Night sky*. And lastly I will style the moon surface.
2. Make 4 different game screens that will be used for *start, the game itself, fail, and success*.
3. I will add gravity to the rocketship as well as a landing/crash function using *gameIsRunning = "true" / "false"*. So that the game stops when the rocket reaches a certain level. I will then add a *keyIsDown* function that allows for the rocketship to fly upwards when the spacebar is pressed.
4. I will use the game states along with the *gameIsRunning = "true" / "false"* in order to move through the different stages. When clicking the mouse from the start screen, the state should go from "start" to "game", and when the state changes so will the screen that is shown. When the rocket ship has landed/crashed the game will stop and depending on whether you landed or crashed the state should go from "game" to "fail" or "success" I will do this by determining if the velocity was higher or lower than a certain number and therefore declare if the ship has landed or crashed.
5. By now I should have a functioning lunar lander game 😊

The upcoming page will show an image of my sketches that I made in procreate for my styling of the game itself (including rocketship, etc.), along with the other game screens.

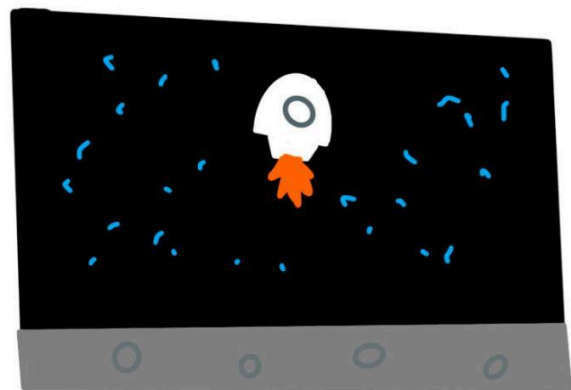


The style of
the rocket

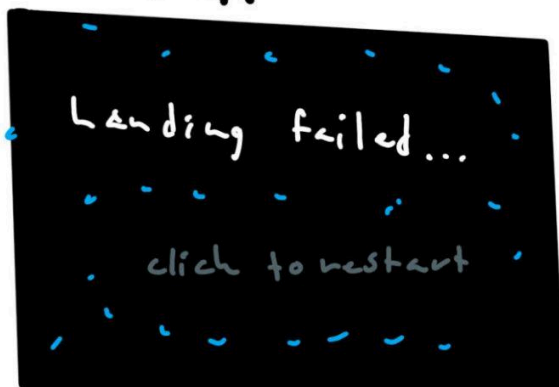
start



Game



Fail



Success

