

Space Groove

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Back Story

Travelling through the depths of space, you encounter several fields of asteroids. Your ship is affected by various gravity fields of the planets nearby limiting or supporting the movement of the ship, the asteroids, and the bullet fire rate so watch out! You find yourself in increasingly dangerous situations. You cannot warp until you know it is safe and the asteroids are gone because warping takes a long time and your ship must be absolutely still and vulnerable during the warping process. Will you be able to clear the field and warp to your destination safely?

User's Guide

The goal is to clear all of the asteroids on the screen in order to advance to the next level.

The difficulty is as followed (Character Acceleration, Fire Cooldown, Asteroid Speed, Asteroid Count):

Tutorial:	(0.25, 20, 1.0, 4)
Easy:	(0.50, 15, 1.5, 8)
Normal:	(1.00, 10, 2.0, 15)
Hard:	(1.20, 5, 2.5, 25)
Special:	(1.50, 2, 3.0, 100)

The title screen is also the help screen which lists the controls.

Press left or right to steer, up to accelerate, and space or z to shoot.

Module Documentation

In the outer SpaceGroove folder:

main.py is the central file that runs all the logic and allows for users to switch rooms.

Within the SpaceGroove folder in the HelpLevel and EndLevel folders, each contain one .py file that assists with the logic of each room. They allow the user to set up and view the text on the screen.

Within the SpaceGroove folder in the remaining SpaceGrooveLevel - SpaceGrooveLevel5 folders, each contain three .py files for each level.

The resources.py file loads the music, sounds, and images for the level from the data folder.

The objects.py file defines the behavior of how each image interacts with one another.

The spaceroom(""/"2"/"3"/"4"/"5").py file handles user events, and communicates with the object and resource files. This file also communicates with the main.py file when the level is over by returning a number.

Cheats

The cheats are simply to hit F2-F6 on the title screen for a level select.

F2 goes to the first level

F3 goes to the second level

F4 goes to the third level

F5 goes to the fourth level

F6 goes to the fifth level

Acknowledgements

About half of the resources come from the 0600asteroids folder, with the setup of the title and end level from the 0500teddyreiner folder.

Music loop comes from: Thursday in the Danger Room by Run the Jewels remixed in Audacity

Sound effects come from:

The Legend of Zelda Ocarina of Time from Nintendo remixed in Audacity (when you win/lose a level), (bullet being shot)

Kirby's Air Ride from Nintendo (bullet hitting an asteroid)

Background level image comes from Super Smash Bros. for Wii U by Nintendo ran through a couple of filters.

Autobiographical Info

Prior to this assignment, I have never coded in Python before due to being a transfer student who instead took Intro to Programming in Java instead. The struggles I had with this assignment was learning Python on the go and dealing with syntax issues for several hours, as well as finding how to get pygame correctly downloaded on my Linux machine for home use. Then I had to learn how different files communicated with each other in python to get everything to run properly without only having a giant main.py file. I have worked on a game before with a friend in C# about 6 years ago as an on and off fun project, so I have little game programming experience. <https://www.youtube.com/watch?v=wZLer33dGRs> is the game I worked on with the author of the YouTube video. One of the things I have experience in the past with is working with sound effects and music in Audacity, so that was an easier part of the project for me.