



Galactic Glide

Brandon Corbin, Francisco Sanchez, Caden Trca, John Gionti

Version: 1.0

Overview

Galactic Glide is a space shooter game inspired by Galaga. As a skilled spacecraft pilot, you are called upon to join the fight against an alien race known as the Zaxons and defend humanity's space colonies from their relentless attacks. With your trusty spacecraft at your command, you must battle through wave after wave of enemy ships, taking down as many as you can and earning points and power-ups along the way.

Game Description

Objective

The objective of Galactic Glide is to score as many points as they can and survive as long as possible to become the new Galactic Glide champion. With this in mind, the game features a leaderboard for each difficulty which players can view through the main menu. Can you climb to the top and become the ultimate Galactic Glide champion?

Gameplay

On starting the game, players are greeted with a main menu screen. Here, players can adjust game settings, view an informational help menu, look at the high-score leaderboard, and start a game. When starting a game, the player is prompted to select between easy, normal, or hard difficulty.

Once loaded into the game, the player must destroy enemy ships and obstacles while avoiding their projectiles. The enemies will get stronger over time, so players have access to powerups that have a set chance to drop from enemies. Players can upgrade their ship's speed, power, and fire rate to defeat the enemies more efficiently.

Every 30 seconds, a boss will spawn. These enemies are special because they are stronger and will stay on the screen until defeated. On defeating a boss, there is a set chance to drop a common powerup, restore some of the player's health, or add a score multiplier that lasts for the rest of the game.

This gameplay loop continues until the player runs out of health. At that point, the player will receive a game over screen. If the player gets a high score, they can add their initials to a persistent leaderboard that tracks their score and the amount of time that game lasted. There is a leaderboard for each difficulty and is viewable from the main menu. From the game over screen, the player can either restart the game or return to the main menu.

For players looking for an extra challenge, the hard difficulty features a limited number of shots in addition to difficult enemies. These shots regenerate over time, but the shot is instantly

refunded if the shot hits an enemy. The hard difficulty is distinct because every shot requires strategy.

Controls

Action	Description
Mouse	Menu Interaction
W / Up Arrow	Move Up
A / Left Arrow	Move Left
S / Down Arrow	Move Down
D / Right Arrow	Move Right
Spacebar	Shoot
P	Pause Game

Assets Used

- Images
 - Player1 Sprite: https://www.reddit.com/r/PixelArt/comments/jy89x7/new_spaceship_that_i_made_i_am_still_quite_new_to/
 - Player2 Sprite: <https://freepngimg.com/png/80338-sprite-asteroids-character-fictional-game-video-wing/download>
 - Powerup Sprites: <https://opengameart.org/content/power-up-icons>
 - Settings Icon: <https://creazilla.com/nodes/3235326-grey-settings-icon>
 - Help Icon: Made in 3D Paint
 - Player Laser: <https://opengameart.org/content/assets-free-laser-bullets-pack-2020>
 - Asteroid: <https://opengameart.org/content/brown-asteroid>
 - Asteroid1: <http://pixelartmaker.com/art/b02b88d8461a4fb>
 - Asteroid2: https://www.vhv.rs/viewpic/iwwmbwR_pixel-art-asteroid-sprite-hd-png-download/
- Sound files
 - Theme Music: <https://freesound.org/people/joshuaempyre/sounds/251461/>

- o Player Laser: https://freesound.org/people/sonically_sound/sounds/612877/
- o Player Death: <https://freesound.org/people/suspensiondigital/sounds/389706/>
- o High Score: <https://freesound.org/people/EVRetro/sounds/495005/>
- o Button: https://freesound.org/people/MATRIXXX_/sounds/658266/
- o Player Damage: <https://freesound.org/people/Autistic%20Lucario/sounds/142608/>
- o Enemy Death: https://freesound.org/people/MATRIXXX_/sounds/441497/
- o Meteor_Destroyed: <https://pixabay.com/sound-effects/stone-debris-109593/>

User Menu

Installation Instructions

To run this game in Processing, some libraries will be needed. All of them can be downloaded from the default library browser (Sketch > Import Library > Manage Libraries...).

- ControlP5
- Sound
- Sprites

After installing the above libraries, simply open GalacticGlide.pde in Processing to run the game.

How to Play

Maneuver your spacecraft (WASD) to avoid enemy fire and obstacles while shooting down enemy ships (press or hold the spacebar) to increase your score. Collect power-ups along the way to defeat increasingly difficult foes. Aim for a new high score in each difficulty! Use “P” to pause the game and start right where you left off again when you are ready to unpause.

Roles and Responsibilities

Item	Brandon	Francisco	Caden	John
README	I	R	I	A
Code Structure	R	C	A	R
UI Implementation	R	C	R	C
Enemy AI	A	I	R	I

Animations	A	R	C	I
Scoring System	R	A	R	C
Powerups	A	I	C	R
Health System	C	R	I	A
Difficulty System	C	A	C	R

R: Responsible (worked on the item)

A: Accountable (reviewed the item)

C: Consulted (added input to the item)

I: Informed (made aware of the item)