**GDD for:**

# Circle

**Casual 2D Arcade**

“PET PROJECT” ™

Table of Contents

Circle 1

Design History 4

Version 0.01 4

Version 0.02 4

Version 0.03 4

Version 0.04 4

Version 0.05 5

Version 0.06 5

Version 0.07 5

Version 0.08 5

Version 0.09 5

Version 0.10 6

Version 0.11 6

Game Overview 7

Philosophy 7

Philosophical point #1 7

Philosophical point #2 7

Common Questions 7

What is the game? 7

Why create this game? 7

Where does the game take place? 7

What do I control? 7

How many balls will I control? 7

What is the main focus? 7

What’s different? 7

Feature Set 8

General Features 8

Gameplay 8

The Game Space. 9

Overview 9

Different colors 9

Changing colors 9

Rendering System 9

Overview 9

2D/3D Rendering 9

Camera 9

Overview 9

Shake effect 9

Zoom effect 9

Game Engine 9

Overview 9

Game Characters 10

Overview 10

Main Character 10

Enemies 10

Main character skins 10

User Interface 11

Overview 11

Main Gameplay Menu 11

Pause Menu 11

Main Menu 11

Choose difficulty mode Menu 11

Author info Menu 12

Difficulty modes 13

Overview 13

Modes Details 13

Music and Sound Effects 14

Overview 14

Background-gameplay Music 14

Menu Music 14

Gameplay-sounds 14

UI-sounds 14

Advertisement Usage 15

Overview 15

Advertisement services 15

P.S 16

# Design History

Brief explanation of the history of this document.

Change history will allow you to track the amount, quality and speed of work done. By evaluating the results, you can improve the quality of your work. **WHEN WORK END ADD PARAGRAPH WITH EVALUATING OF WORK.**

## Version 0.01

Version 0.01 first version of the document. Initial content:

1. Made a front page of the document
2. Made a content table.
3. I have designed the headers and footers of the document.

## Version 0.02

Version in which the game is briefly described in the "Game Overview" paragraph.

Included in the changes are:

1. Make 2 Philosophical points.
2. Answer on common questions.

## Version 0.03

Version 0.03 - Described Feature set.

Included in the changes are:

1. Added “General Feature”.
2. Added “Gameplay”.

## Version 0.04

Version 0.04 - Work on the game space has begun.

Included in the changes are:

1. Added “Game Space”.
2. Write overview for game space.
3. Add features for game space – “Different colors” and “Changing colors”

## Version 0.05

This version describes the “Rendering System” of “Game Space”

Included in the changes are:

1. Added “Rendering System”.
2. Write overview for rendering system.
3. Choose 2D Rendering.

## Version 0.06

This version describes how the camera will work in the game

Included in the changes are:

1. Added “Camera”.
2. Write overview for camera.
3. Add features for camera– “Shake Effect” and “Zoom Effect”.

## Version 0.07

The game engine has been selected in “Game Engine” paragraph.

## Version 0.08

Work was done on the description of the user interface

Included in the changes are:

1. Added overview of “User Interface”.
2. Write “Main Gameplay Menu”.
3. Write “Pause Menu”.
4. Write “Main Menu”.
5. Write “Choose difficulty mode Menu”.
6. Write “Author info Menu”.

## Version 0.09

For most of the actions are prescribed and selected sounds.

Included in the changes are:

1. Added overview of “Music and Sound Effects”.
2. Collect menu sounds
3. Collect background music.
4. Collect main menu music.
5. Collect UI sounds.

## Version 0.10

Described the game characters (main character and enemies).

Included in the changes are:

1. Added overview of “Gamer Characters”.
2. Describe main character
3. Describe enemies.
4. a system of skins for the main character has been invented.

## Version 0.11

Described all the difficulties that must be attached to the game

Included in the changes are:

1. Added overview of “Difficulty modes”.
2. Describe easy, medium and hard difficulties

# Game Overview

## Philosophy

### Philosophical point #1

During the development of the project is not the task to create something unique and unrepeatable. It is necessary to qualitatively and professionally repeat an existing idea.

### Philosophical point #2

This is definitely not a commercial project and no practical purpose to make money. To show the quality of my work is the main thing.

## Common Questions

### What is the game?

Describe the game is a paragraph. This is the answer to the most common question that you will be asked. What are you working on?

### Why create this game?

To show a high quality of the final product to a potential employer.

### Where does the game take place?

The player is on a colored canvas with obstacles flying by all the time.

### What do I control?

The player controls multiple directions of several balls that are on the same circle

### How many balls will I control?

Depends on the selected level of difficulty. It can be from 1 to 6 balls.

### What is the main focus?

The main focus is to set new records in different modes.

### What’s different?

Simple but attractive graphics.

# Feature Set

## General Features

* Different difficulty modes.
* 1 touch control.
* 2D graphics.
* Peaceful environment.

## Gameplay

The screen is constantly moving several balls (depending on the difficulty) in a circle.

Obstacles appear at random and fly in the direction of the player.

You need to click on the screen to change the direction of the balls. Thus the player evades the obstacles.

If the evasion is successful +1 point if not the game is lost.

# The Game Space.

## Overview

The space in which the player is located is one scene. There is a circle with N number of balls on it. The background can be different static colors or a gradient.

## Different colors

Each difficulty has a preset list of colors that can be painted on the background

## Changing colors

When you reach a certain point threshold, the light changes smoothly to the next light on the list.

## Rendering System

### Overview

Standard engine rendering with post processing must be added. Not a strong vignette effect. Some orbs may glow as a separate option as a skin.

### 2D/3D Rendering

Use the 2D URP template.

## Camera

### Overview

The camera is always in the same place. Various effects can be applied to the camera.

### Shake effect

Appears when a player is defeated. Light camera shake on x y axes.

### Zoom effect

When you get the glasses, the camera smoothly zooms in a short distance.

## Game Engine

### Overview

Use Unity 2021.3 LTS as the game engine. No complex technology is used

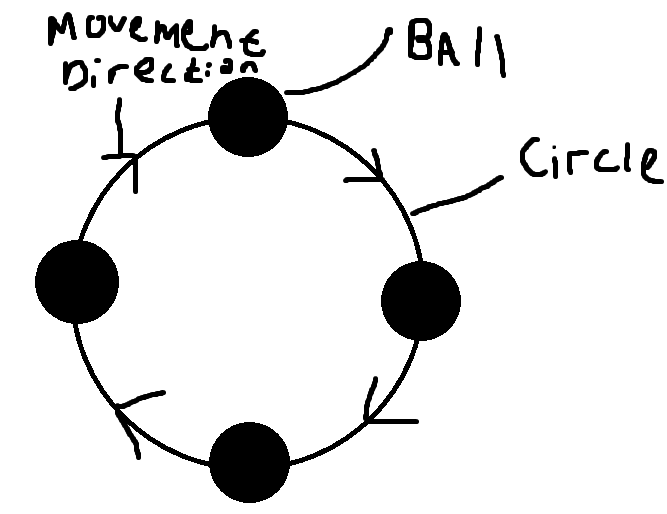
# Game Characters

## Overview

The main character is a number of circles that move in a circle. Enemies are objects that fly toward the player. The appearance of all the characters is not very complicated geometric shapes. Various graphic effects can be applied to them. Each character can have a different appearance - skins

## Main Character

Simple scheme of character:



Technical Requirements:

* Ability to adjust the number of balls.
* Ability to adjust the size of the circle on which the balls move.
* Each ball is a prefab that has been prepared.
* The speed is adjustable.
* You can choose the direction of movement at the beginning.

## Enemies

Enemies are balls that fly toward the player.

## Main character skins

Skins are customizable. You can change the color and shape.

Shapes:

* Triangle.
* Square.
* Circle.
* Hexagon.

Colors:

* Rainbow.
* Zebra.
* [Colorful fluid](https://images.fineartamerica.com/images/artworkimages/mediumlarge/2/abstract-art-colorful-fluid-painting-patricia-piotrak.jpg)
* Standard colors

# User Interface

## Overview

First of all, let us define the following concepts: **Widget** - an independent element of the user interface, **Menu** - a set of widgets.

The menus can be **gameplay** and **non-gameplay**. Gameplay menu is a user interface with which the player interacts during gameplay. Non-Gameplay menu is a user interface that is not associated with gameplay. It can provide access to gameplay or show any information.

UI should be **minimalist** and **flat**.

[References link.](https://dribbble.com/shots/14902579-Tetris-Mobile-App-Design-Exploration?utm_source=Clipboard_Shot&utm_campaign=anjaruntoro&utm_content=Tetris%20Mobile%20App%20Design%20Exploration&utm_medium=Social_Share&utm_source=Clipboard_Shot&utm_campaign=anjaruntoro&utm_content=Tetris%20Mobile%20App%20Design%20Exploration&utm_medium=Social_Share)

## Main Gameplay Menu

* + **Type**: Gameplay Menu.
  + **Where called**: This user interface appears in the main gameplay.
  + **What include**: There should be the following widgets: Score Counter, the difficulty of the gameplay, the button that calls the pause menu.
  + **Location**: All elements are at the top of the screen and are arranged horizontally. For a detailed layout of the widgets, see the layout scheme.
  + **ADD FIGMA SCHEME.**

## Pause Menu

* + **Type**: Gameplay Menu.
  + **Where called**: Called on top of all menus during the gameplay, when you click on the related button.
  + **What include**: The menu consists of the following widgets: continue button, main menu button, exit button.
  + **Location**: The menu is located in the middle of the screen, and all elements in it are arranged vertically. For a detailed layout of the widgets, see the layout scheme.
  + **ADD FIGMA SCHEME.**

## Main Menu

* + **Type**: Non-Gameplay Menu.
  + **Where called**: Called when starting the main menu scene
  + **What include**: Game logo, last result, play button, best score button, author info button.
  + **Location**: The menu is located in the middle of the screen, and all elements in it are arranged vertically. For a detailed layout of the widgets, see the layout scheme.
  + **ADD FIGMA SCHEME.**

## Choose difficulty mode Menu

* + **Type**: Non-Gameplay Menu.
  + **Where called**: Called when you click on the related button.
  + **What include**: Game logo, menu title, easy mode button, medium mode button, hard mode button, back button.
  + **Location**: The menu is located in the middle of the screen, and all elements in it are arranged vertically. For a detailed layout of the widgets, see the layout scheme.
  + **ADD FIGMA SCHEME.**

## Author info Menu

* + **Type**: Non-Gameplay Menu.
  + **Where called**: Called when you click on the related button**.**
  + **What include**: title, description, GitHub button, Telegram button, back button.
  + **Location**: The menu is located in the middle of the screen. For a detailed layout of the widgets, see the layout scheme.
  + **ADD FIGMA SCHEME.**

# Difficulty modes

## Overview

The gameplay is represented by different difficulty modes. Depending on the difficulty mode, the music, the parameters of the main character, the speed of enemies, and the frequency of enemy appearances all change.

## Modes Details

Easy Mode:

* Count Player balls: 2-3
* Player Speed: NN # TODO: Choose speed in play test
* Enemy Speed: NN # TODO: Choose speed in play test
* Enemy Spawn Frequency: NN # TODO: Choose speed in play test
* Music Pack: see “Music and Sound Effects”

Medium Mode:

* Count Player balls: 3-4
* Player Speed: NN # TODO: Choose speed in play test
* Enemy Speed: NN # TODO: Choose speed in play test
* Enemy Spawn Frequency: NN # TODO: Choose speed in play test
* Music Pack: see “Music and Sound Effects”

Easy Mode:

* Count Player balls: 4
* Player Speed: NN # TODO: Choose speed in play test
* Enemy Speed: NN # TODO: Choose speed in play test
* Enemy Spawn Frequency: NN # TODO: Choose speed in play test
* Music Pack: see “Music and Sound Effects”

# Music and Sound Effects

## Overview

The game will not use any special sound design technology.

## Background-gameplay Music

This music plays during gameplay. When defeated, a fade effect is applied to the music. Below are the tracks that will play in cycles.

For Medium difficulty:

* [Bake A Pie by Lukrembo](https://www.youtube.com/watch?v=4LdCEBMrXV0)
* ['HEAVYLIGHT' by supapao 🇺🇸](https://youtu.be/DisZeyftY5I)
* [And So It Begins](https://youtu.be/BH-SnQ8J1VU)
* ["Path Of The Fireflies" by AERØHEAD](https://youtu.be/sJyO-By_9wc)
* [Your Little Wings" by Tokyo Music Walker 🇯🇵](https://youtu.be/znarNyPELcU)
* ["Day In Paris" by Pyrosion](https://youtu.be/twpQogWOgAs)
* [BUTTER" by @LuKremBo 🇰🇷](https://youtu.be/HryvNaqGnXc)
* ["DAYDREAM" by @KaizanBlu 🇬🇧](https://youtu.be/Xos5NZpUORg)
* ["LOST" by Rexlambo 🇷🇺](https://youtu.be/EDCLYnD-S2s)
* ["LOST IN THOUGHT" by Ghostrifter 🇳🇱](https://youtu.be/u5QBqjuMUaQ)

For Hard difficulty:

* [pov: its finally spring (sped up playlist)](https://www.youtube.com/watch?v=F1dxhRA6aqY)

## Menu Music

This music plays on all menus in cycles. When you start the game or exit the game, a fade-out effect is applied.

* [Summer · Sadens](https://www.youtube.com/watch?v=iTPDESPYgTo)

## Gameplay-sounds

These sounds are played when you do something in the game. They can be on top of each other.

Used Sound library – [freesound.org](https://freesound.org/)

* [Death](https://freesound.org/people/notchfilter/sounds/43697/) – when player lose game
* [Hit](src/mixkit-cartoon-punch-2149.wav) – when player take damage or doing something wrong
* [Score](https://freesound.org/people/Reitanna/sounds/323738/) – when player earn score points
* [Level Up](https://freesound.org/people/GameAudio/sounds/220173/) – when user earn special score.

## UI-sounds

These sounds are played when you click on UI elements. They can be on top of each other.

Used Sound library – [freesound.org](https://freesound.org/)

* [Click](https://freesound.org/people/FiveBrosStopMosYT/sounds/537029/) – when user interact with element
* [Bubble](https://freesound.org/people/elmasmalo1/sounds/376968/) – when user open somethings.
* [Start](https://freesound.org/people/elmasmalo1/sounds/376968/) – when user start game.

# Advertisement Usage

## Overview

Advertising in the game is divided into 2 types with and without rewards. Ads without rewards are played when the user returns to the main menu from the gameplay. Ads with rewards can be played after the player is defeated. When playing such ads, the player can continue the game, if he refuses to watch the game will be lost. Decision time 10 sec

## Advertisement services

In the real case here should describe what service will be used to view ads

# P.S

I am not a game designer and do not claim to be one. I position myself as a programmer. At the same time, I believe that a good specialist must understand all the stages of development work. This experience is useful for productive work.!

Michael Nasledskov