



## Snake Wars IO

Requires Unity3D v2021.3.8+

Compatible with Android, iOS, WebGL and Standalone platforms

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Dear Customer,

Thank you so much for purchasing our Unity game kit. Here you can learn about the important things you need to know in order to use this asset with maximum proficiency.

All classes are already fully commented, but if you ever had a question about anything, feel free to contact us at <http://www.finalbossgame.com>.

We'll try our best to help you with your questions ASAP, till you are completely satisfied.

## Overview

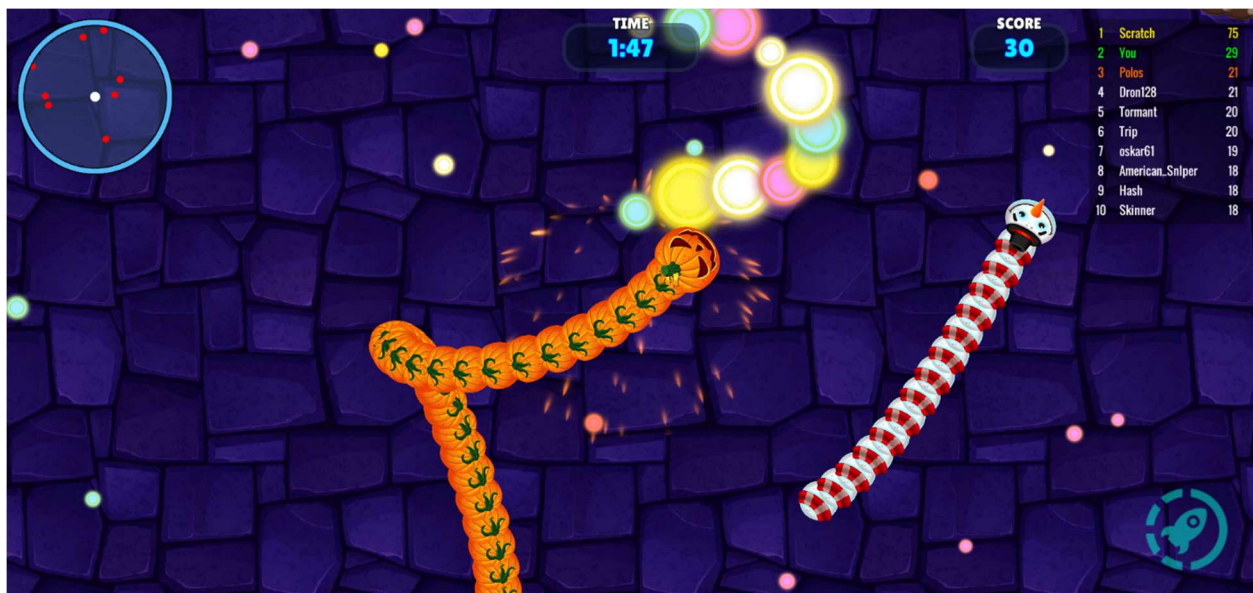
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Slither through a dangerous pit filled with venomous snakes and survive as long as you can! Challenge your skills and try to be the biggest snake in Snake Warz!

Start Snake Warz as a small snake or worm and try to get bigger by eating your way through each level. Rush your way through fields of food and try to beat the highscore - how long can you survive?

Snake Warz is designed for a smooth, fast performance, with controls designed for every mobile device. Snake has never been this fun or competitive before!

Snake Warz uses bots to offer the player a competitive experience. These bots are using an advanced and robust AI that gives them the ability to hunt for food, dodge obstacles and trick other bots (& player) into unwanted collisions.

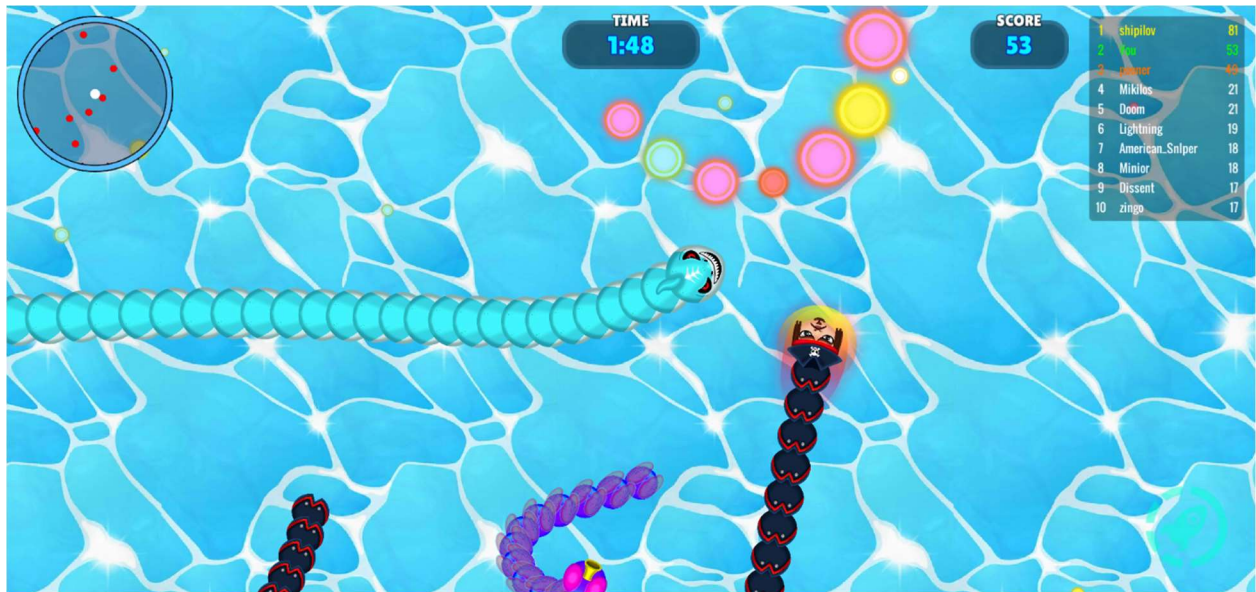


This game kit features a complete game flow with menu, help, shop, settings, game & result scenes.

This project works with all input systems, and can be played on **Android**, **iOS**, **WebGL** and **Standalone** at the same time.

## Game Play

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Snake Warz comes with an intuitive & smart control system. When game is being played on mobile phones (ie, Android or iPhone), the virtual joystick controller automatically kicks in to provide the player with a joystick to move and a burst button to move at extra speed. Respectively, when the game is being played on PC, Mac or on browsers (as a WebGL game), the classic mouse & keyboard controls are activated, so player can play with ease.

The game is using advanced mechanics to ensure a smooth run all throughout the game. Game-objects are pooled when needed, garbage is produced as low as possible and all resources are formatted in a way to give the best performance.

The game can handle up to 5000 food instances, 50 snake bots and lots of visual effects without suffering from fps drop or lag spikes.

# Game Modes

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As of version v1.3, “snake warz” offers 5 different game modes. Each mode offers a unique gameplay experience so this helps you to entertain your audience for longer and ensure their satisfaction & retention over a longer period of time.

## Quick Play

This is the default game mode. Every setting is set on normal; foods are re-spawned when picked up, but snakes will revive and game timer counts down from 120 seconds (default) to 0.

## Infinity

There is no timer in this mode. You can play for unlimited amount of time and get as big as possible. All other setting is set to normal.

## Boss Hunt

In this mode, all snakes start big. There is also no food on the pit, so every snake needs to hunt other snakes to become the final boss!

## Ghetto

Foods are very scarce in “Ghetto” mode & they are not replenished as well. So, every snake needs to fight for every single food that is available.

## Battle Royale

This is where you need to be the last man standing in order to win. Foods are limited and the pit is filled with snakes. You need to be every other snake and survive as the last one to achieve the #1 rank.



## Preferred Setup Data

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To make sure your game runs at a constant 60 frame per second on all target platforms, it is advised to keep the number of foods, bots and other things as below. Of course, you can tweak these numbers later on when you have more confidence with the performance of the game on your target platform.

<i>Item</i>	<i>Best performance value</i>
Total food number	500 ~ 1500
Total bots	25 ~ 40
Collision (spawn) points	50 ~ 100
Ghost food lifetime	5 ~ 15 seconds

## How to add a new Snake skin

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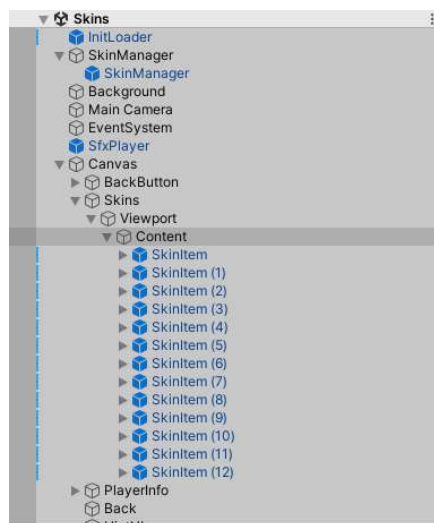
Snake skins are shared between player and bots. So, if you add a new skin to the game, the new skin can be picked up by both player (through shop) and bots at the same time. To add a new skin, all you need to do is to design 2 new arts for the head and the bodypart, place them inside the **“Textures/SnakeBodies”** and **“Textures/SnakeHeads”** folders and then add these new arts to the controller objects like this:

1. Find “SkinManager” prefab and open it for edit.
2. You will find two arrays (Available head skins, and available body skins) that are holding a reference to already available head and body skins.
3. Increase the length of these arrays by +1 and add your new art to the bottom of the arrays.
4. Save and exit the prefab.

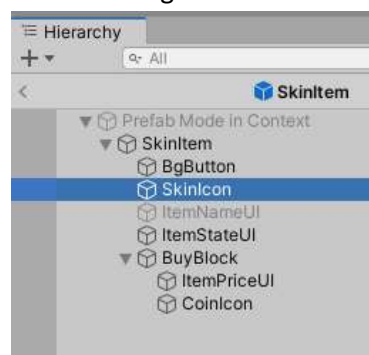
## How to add a new Snake skin to Shop (skins scene)

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1. Open the Skins scene and expand the Skins scrollview like this:



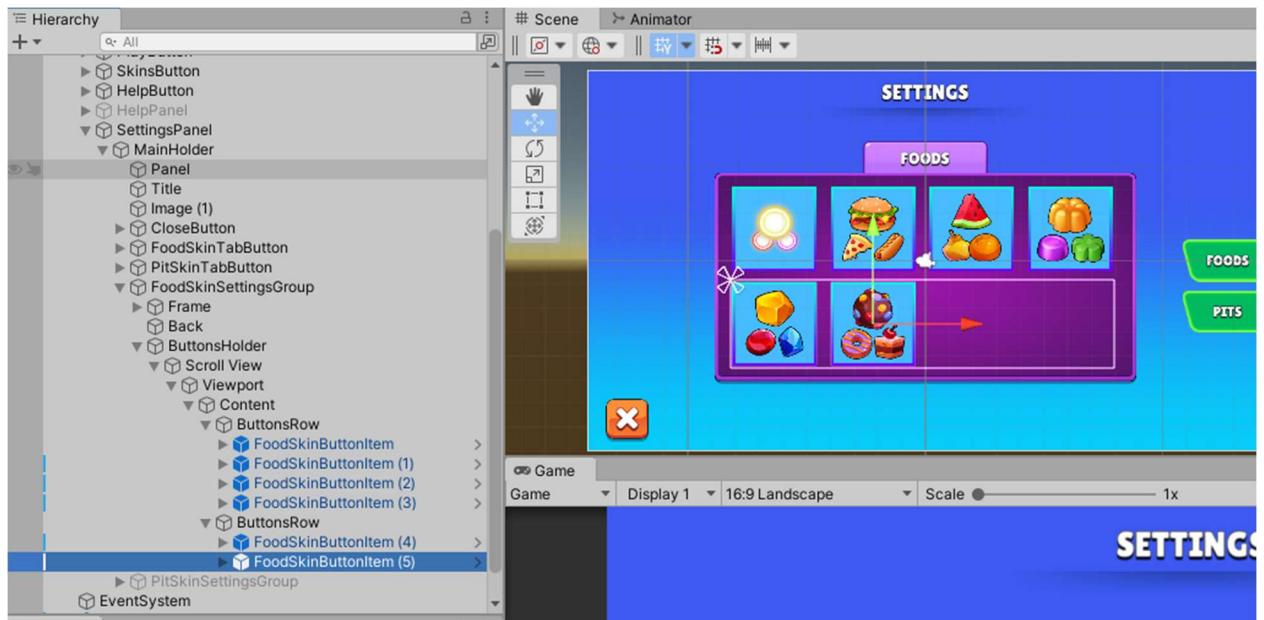
2. We already have 13 skin items under the Content parent. Select the last item (SkinItem(12)) and hit Ctrl+D to duplicate it.
3. Select the new duplicated item and set a new ID (13), price and name for it via the inspector.
4. Now, open the prefab, select the SkinIcon child object and change its art (aka source image) to the new head skin art you have made for the game.



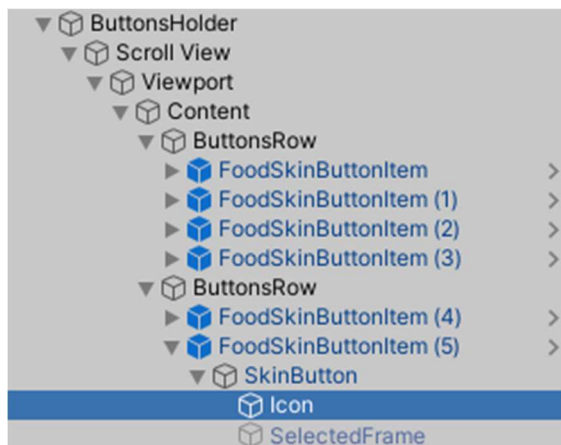
## How to add a new food skin

To add a new food skin, you simply need to follow these steps:

1. Open the “Menu” scene and find the “ScrollView>Viewport>Content” object that belongs to the “FoodSkinSettingsGroup”

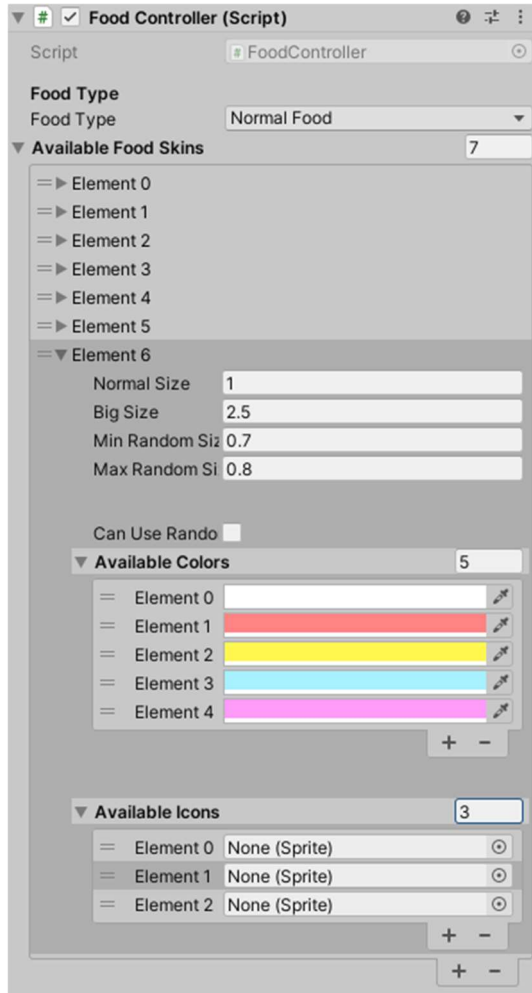


2. We already have 6 different food skins by default. Each “ButtonsRow” parent object can hold 4 skin items, so when we want to add a new skin, we either need to find a parent that is not full, or create a new one that can hold 4 new skin items. In our example, we can add a new skin item to the second “ButtonsRow” parent object.
3. Select the last “FoodSkinButtonItem (5)” object and duplicate it by hitting Ctrl+D.
4. Select the new “FoodSkinButtonItem (6)” object and set its “SkinButtonID” to 6. Then open this object in hierarchy, select its “SkinButton>Icon” child object and assign your new food skin icon to the button. Make sure you are **not** editing the prefab “FoodSkinButtonItem” object.





- Now select the “Food” prefab under Assets->Prefabs->Foods->Food-01 and open it so we can add the new food skins as a new array. Increase the size of “AvailableFoodSkins” array by 1, then open the new array element at the bottom of the list and add your desired values for the size of the new food skin. Then open the “AvailableIcons” array under the new element and add your new food arts to this array. Please notice that new food arts need to have the standard 256px \* 256px dimension.



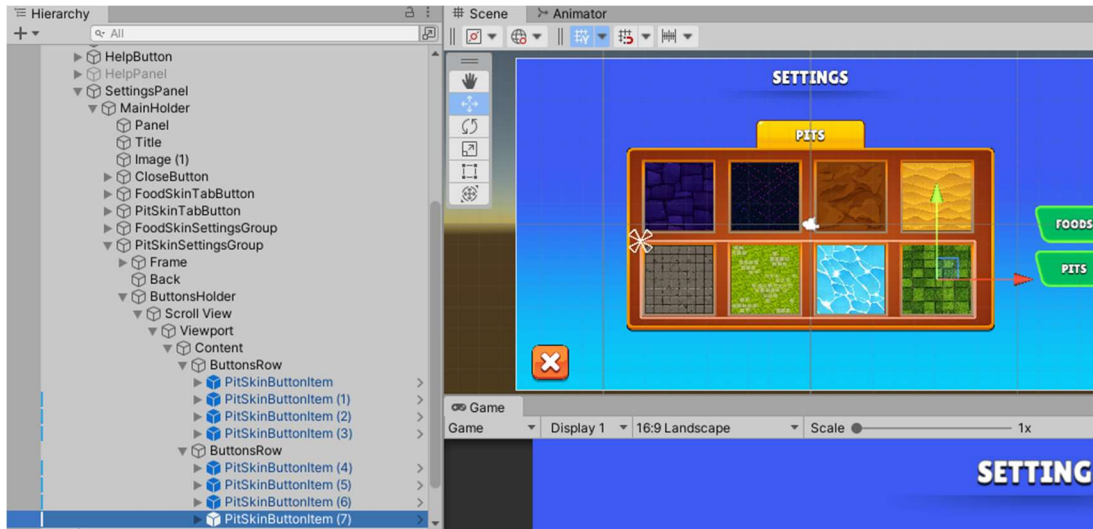
- If you like, you can tick the “CanUseRandomColors” checkbox so the food controller can automatically assign a new random color to each one of the food objects it spawns.



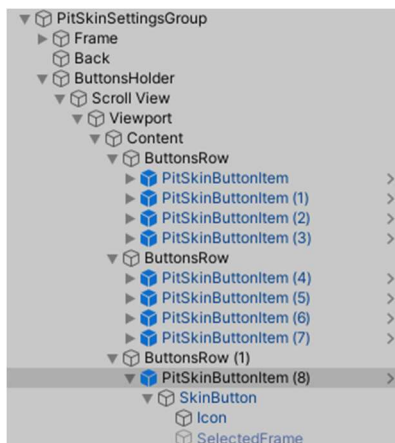
## How to add a new pit skin

To add a new pit skin, you need to follow these steps:

1. Open the “Menu” scene and find the “ScrollView>Viewport>Content” object that belongs to the “PitSkinSettingsGroup”



2. We already have 8 different pit skins by default. Each “ButtonsRow” parent object can hold 4 skin items, so when we want to add a new skin, we either need to find a parent that is not full, or create a new one that can hold 4 new skin items. In this example, we need to duplicate the second “ButtonsRow” object and delete 3 of its 4 children, then rename that child object to “PitSkinButtonItem (8)”.
3. Select the new “PitSkinButtonItem (8)” object and set its “SkinButtonID” to 8. Then open this object in hierarchy, select its “SkinButton>Icon” child object and assign your new pit skin icon to the button. Make sure you are **not** editing the prefab “PitSkinButtonItem” object.



4. Now open the “Game” scene and find the “SkinManager” object under “GameController”. Increase the size of “AvailableBackgrounds” array by 1 and add your new pit material to the end of the list. The pit material should be an Unlit material that holds the texture of the new pit skin you want to add to the game.

## Introduction to Boosters

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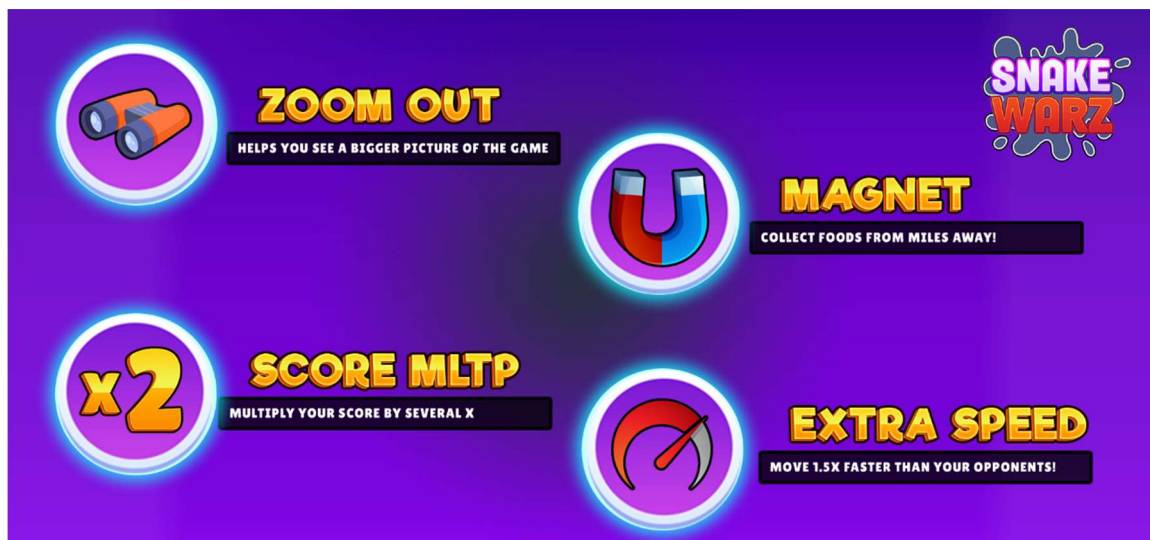
As of update v1.2, we have added boosters to the game to give you an edge over other snakes. There are two ways you can obtain boosters:

1. We have a spawner class that spawns different boosters at random positions across the map. If you pick up any booster, it will move to a new position on the map so you can find and pick it up again.
2. We have a new “Wheel of Fortune” feature that grants you free boosters or extra coins every once in a while, (more on Wheel of Fortune on the next page). When you spin the wheel, you have a chance to win some boosters. These boosters will be saved in your inventory (and are stackable), and you can use them anytime during the game using the UI bar at the bottom.



We have 4 different boosters by default:

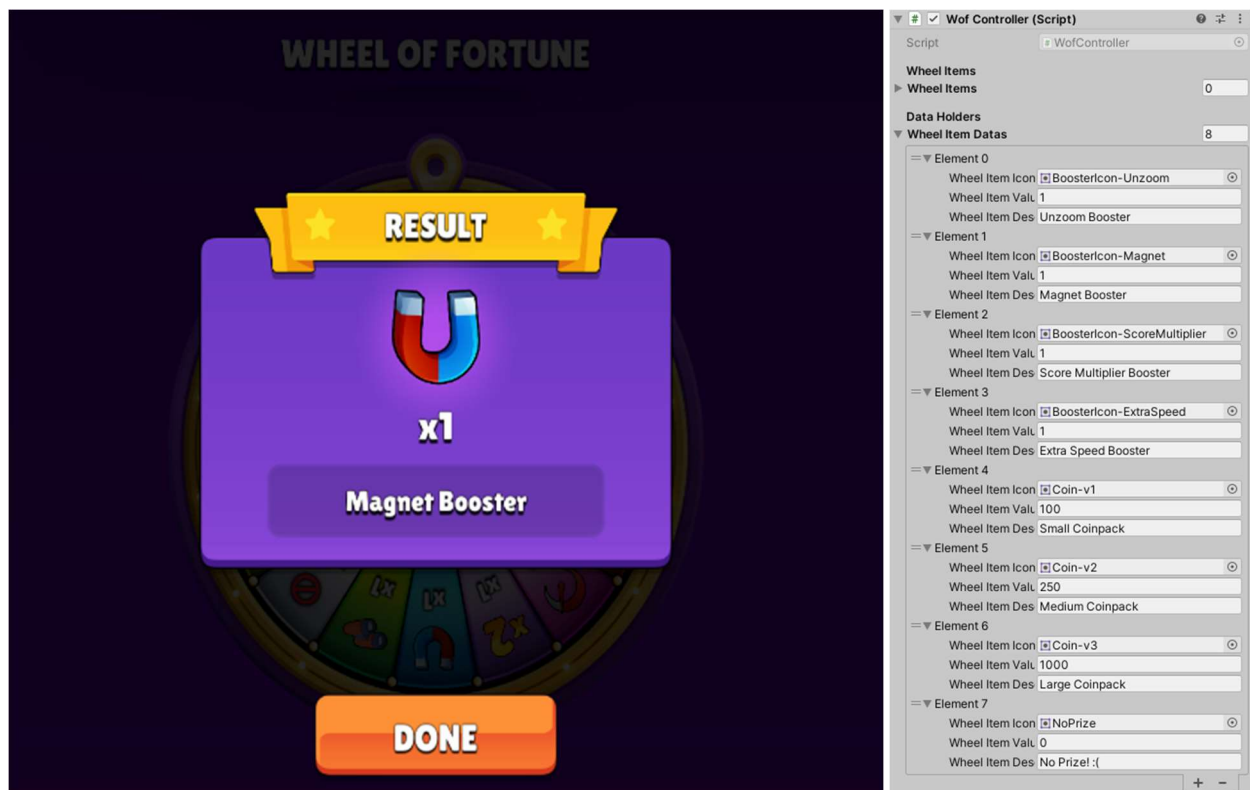
1. Unzoom (zoom out) booster
2. Magnet booster
3. Score multiplier booster
4. Extra speed booster



In the upcoming updates, we are going to add a new in-game shop where you can buy new boosters using in-game currency.

## Wheel of Fortune

Wheel of Fortune is a new feature that has been added to the game in update v1.2. This gives your player a big incentive to return to the game to spin the wheel and claim their rewards. The wheel is easily configurable with new items, and you can update the item details, such as icon, name, amount, and description, with ease. You can also change the cooldown of the wheel of fortune to any amount you like (the default value is set at 3600, which means 1 hour between each spin).



Once the spin is over, the granted prize will be saved to player inventory (via PlayerPrefs) automatically.

## Modifying Game Data

You can easily change the way the game works by changing certain parameters inside the important controller classes that are coming with the game. Here you can find a table, showing the way each variable contributes to the game:

Class Name	Variable Name	Usage
<b>Snake.cs</b>		
“	moveSpeed	Max speed = 8f
“	moveSpeedBoost	Normal = 1x, Boosted = 2x
“	rotationSpeed	How fast the snakes can turn
“	rotationSpeedBoostPenalty	When speed boost is enabled, the rotation speed will suffer as a result (by -40%)
“	sizeBasedSpeedPenalty	When snake grows bigger, the movement speed will gradually suffer as a result
“	framesNeededForBodyReduce	When speed boost is enabled, snake will lose a bodypart every 100 frames
“	scaleUpStepsRatio	Snake's size is increased by a little as soon as a new bodypart is added
<b>GameController.cs</b>		
“	controlType	0 = Virtual joystick / 1 = Mouse & keyboard
“	minimumFieldX	Level bound & space for snakes to move
“	minimumFieldY	Level bound & space for snakes to move
“	maximumFieldX	Level bound & space for snakes to move
“	maximumFieldY	Level bound & space for snakes to move
“	foodIntoBodypart	Picking up N number of food result in a new bodypart
“	initialBodyParts	All snakes start with this amount of bodyparts
“	bodypartsFollowDelayNormal	Follow delay when in normal speed
“	bodypartsFollowDelayBoost	Follow delay when speed boost is enabled
“	maxSnakeSizeForScale	Snake's scale can never grow bigger than this amount
“	normalFoodScore	Score of each normal food instance that is scattered in the scene
“	ghostFoodScore	Ghost food is created when a snake dies
“	totalGameTime	Game time in seconds
“	maxDistanceToTriggerShake	Camera shake when a snake dies near the player

## Support

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If you have any questions, feel free to write us a message at <http://www.finalbossgame.com> and we will get back to you as soon as possible.