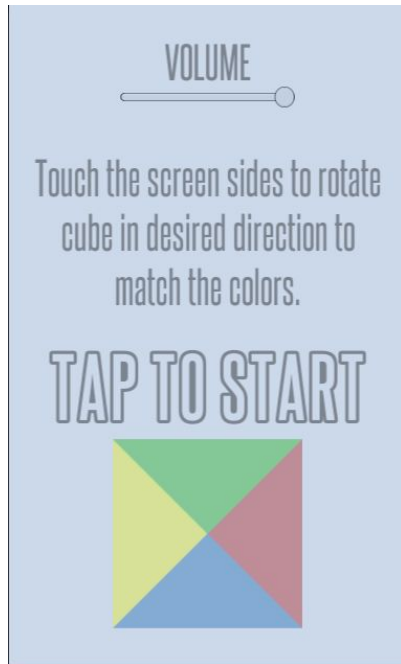# ColorMatch 2D Game Template.

ColorMatch is a simple 2D arcade game where you need to rotate a player to match the color of falling objects. Rotate direction depends on the screen side, you made a tap on.
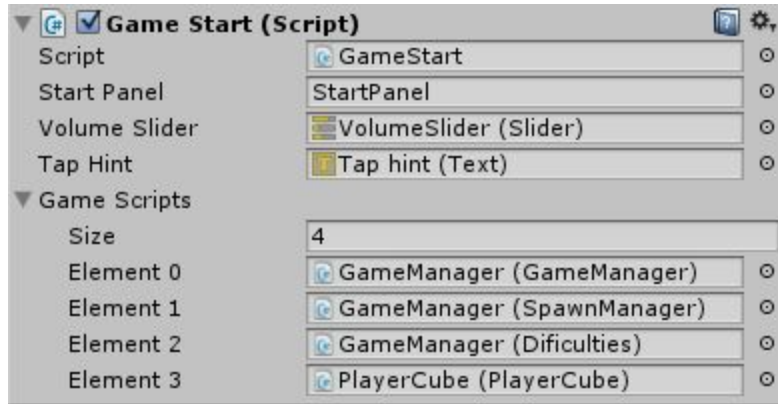
The start screen is on the same scene as an actual game. All you need to start is tap on the screen.

GAME LOGIC.

GameStart.cs

❖ **Start Panel** - Is an UI panel with CanvasGroup component. Its holding all the UI elements you can see at the start screen, which are:
  ➢ **Volume Slider** - UI slider to control whole game volume.
  ➢ **Tap Hint** - UI Text object.
  ➢ **And others.**
❖ **Game Scripts** - all the scripts for gameplay. Because they need to be disabled before the game has been started, we need to link them here to enable. When screen has been tapped, CanvasGroup alpha on the StartPanel decreasing over the time, and when it's equal to zero we enabling all the game scripts.


GameManager.cs
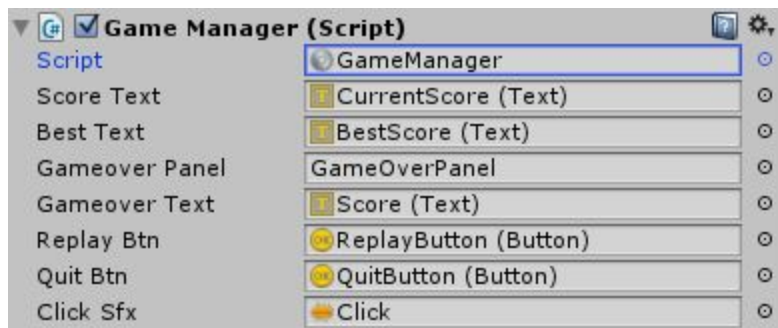
❖ **Score Text** - UI text object for displaying current game score.

- ❖ **Best Score** - UI text object for displaying best game score.
- ❖ **Gameover Panel** - Is an UI panel with CanvasGroup component. Its holding all the UI elements you can see when the game is over, which are:
  - ➢ **Gameover Text** - UI text object to display dialed score.
  - ➢ **Replay and Quit buttons.**
- ❖ **Click SFX** - click sound effect for buttons.

SpawnManager.cs
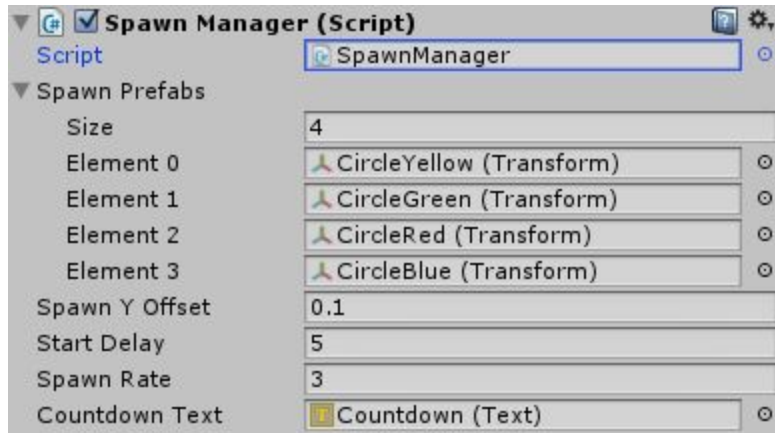
- ❖ **Spawn Prefabs** - prefabs to spawn. Sprites with different colors. Spawn prefabs should have a 2D collider, Rigidbody2D and SpawnPrefab script attached.
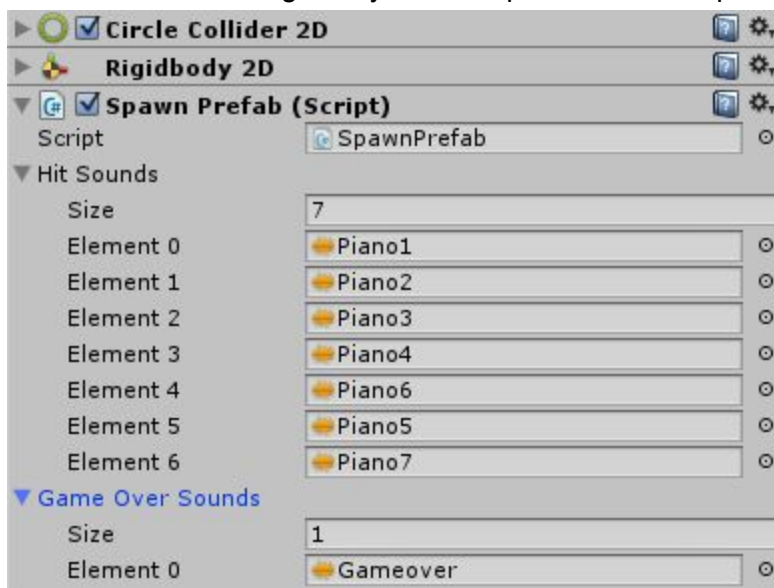

  Each spawn prefab should have an unique tag, depends on its color. Same tags must be added to the player's Edge Colliders.
- ❖ **Spawn Y Offset** - Spawn position offset. Spawn point is top middle point of the screen viewport. It calculates automatically, so this is value to correct it if needed.

- ❖ **Start Delay** - Delay in seconds before spawning starts.
- ❖ **Spawn Rate** - Delay in seconds before each subsequent spawn.
- ❖ **Countdown Text** - UI text to display countdown based on Start Delay.

Difficulties.cs

An addon to the spawn manager for adding difficulty increasing.
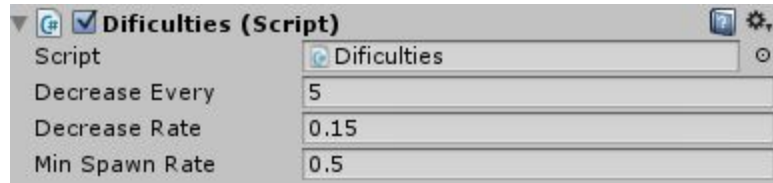
- ❖ **Decrease Every** - delay in seconds for each decrease operation.
- ❖ **Decrease Rate** - decrease value.
- ❖ **Min Spawn Rate** - minimum spawn rate. After reaching this value, decreasing operation will not execute anymore.

So in this particular example, Spawn Rate of the SpawnManager script will decrease every 5 seconds on 0.15; but only if its bigger than 0.5.

Player.

Player is a colored sprite. In this case there is 4 colors for each edge and a SpawnPrefabs with same colors. Blue, Green, Red and Yellow. Player object holds 4 edge colliders. This colliders are tagged the same as SpawnPrefabs. So when spawn prefab collides with any of player's edge, it check if this edge tag is the same and if so, score is adding and prefab disabling. Otherwise - game over.

PlayerCube.cs
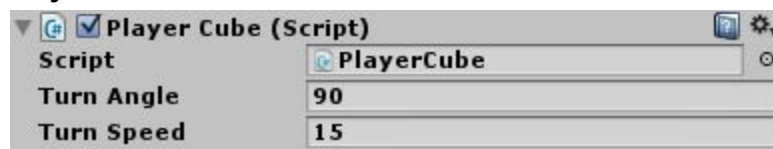
- ❖ **Turn Angle** - is angle to turn in degrees.
- ❖ **Turn Speed** - rotating speed.