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Defense n°2

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■ DIFFERENT TASKS

1. Clean Up
2. User Interface
3. Kart movement
4. Checkpoints, Laps, Ranks
5. Aesthetics, bonuses

1.

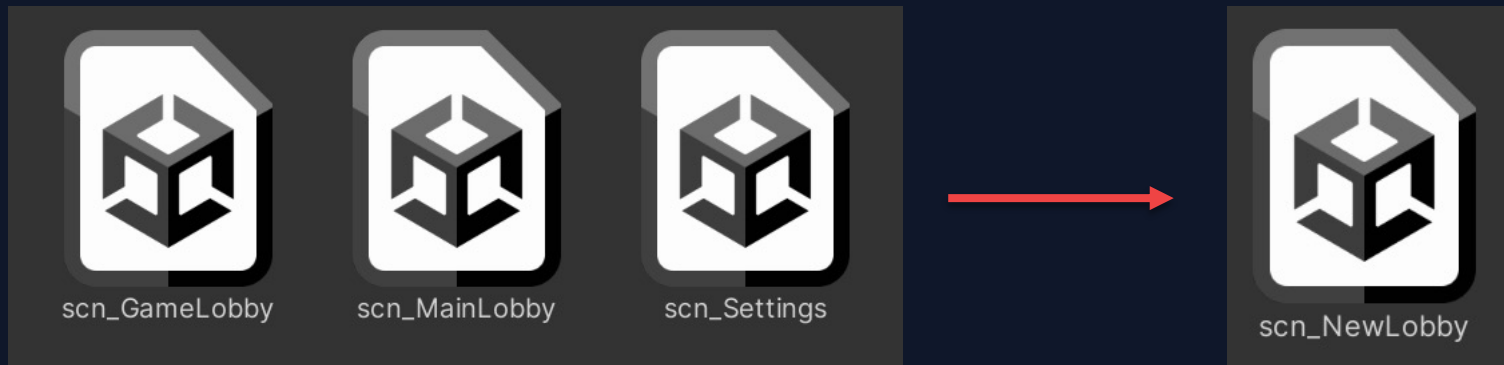
CLEAN UP

Some refactoring and cleaning

2.

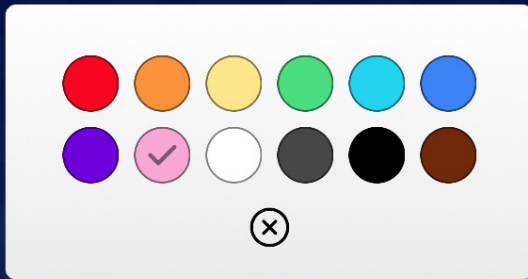
USER INTERFACE

Menus & In Game overlay



NEW SCENE ORGANIZATION

Your room code is
H60PP 



Waiting for players..

Launch Game

Your room code is
3PKP1 

Share this with you friends !

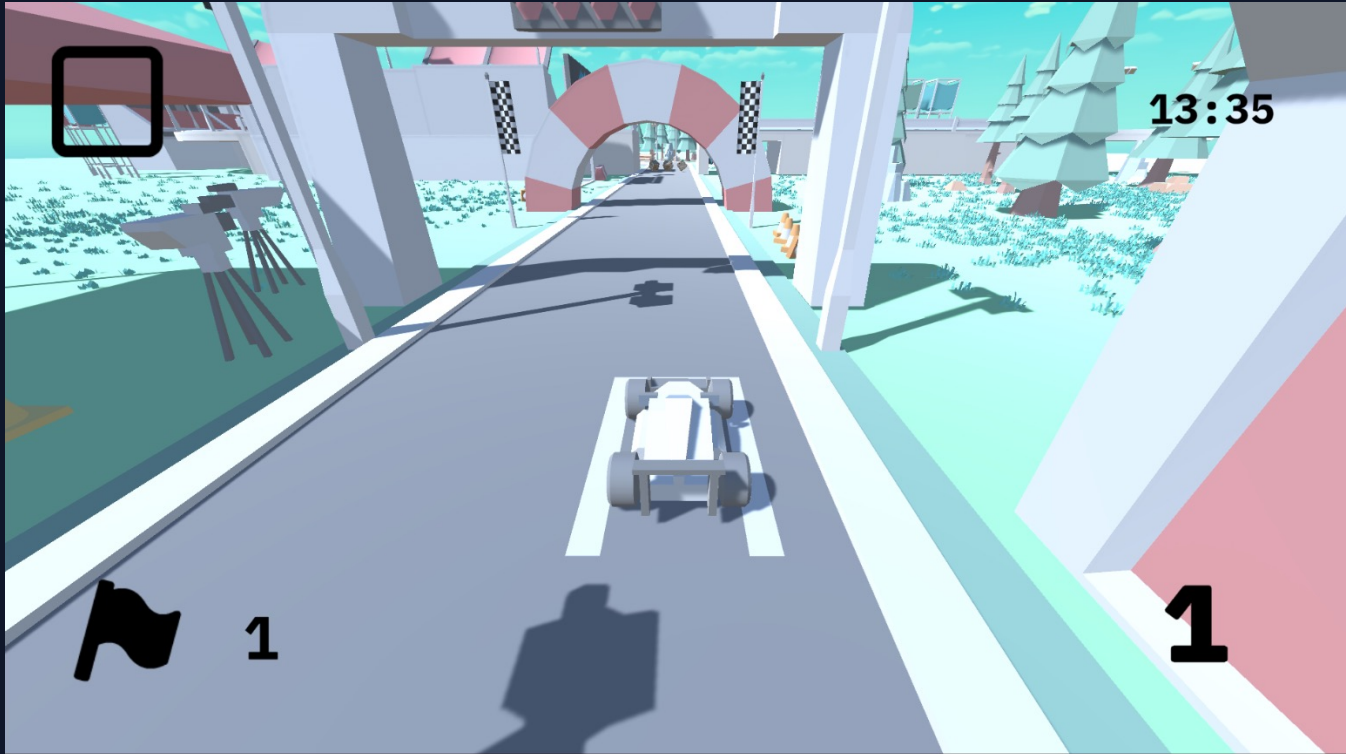
krisboul
lancelot
titouan



ternier
eliott



COLOR MANAGEMENT



IN GAME GUI

3.

KART MOVEMENT

Way the player will interact with his car


```
1 // Only allow the steering when moving
2 if (Mathf.Abs(currentSpeed) > 25) rotate = (steering * direction * backwardControls) * amount;
3
4 // Rotate the player when steering
5 transform.eulerAngles = Vector3.Lerp(transform.eulerAngles, new Vector3(0, transform.eulerAngles.y + currentRotate, 0), Time.deltaTime * 5f);
```

```
1 if (Mathf.Abs(currentSpeed) > 5)
2 {
3     // Allow the player to rotate
4     transform.rotation = Quaternion.Euler(transform.rotation.eulerAngles + new Vector3(0f, steering * amount * turnInput * backwardControls * bonusSpeed * Time.deltaTime, 0f));
5 }
```



OLD / NEW ROTATION

Movement	
Acceleration	120
Steering	100
Gravity	7
Drag On Ground	5

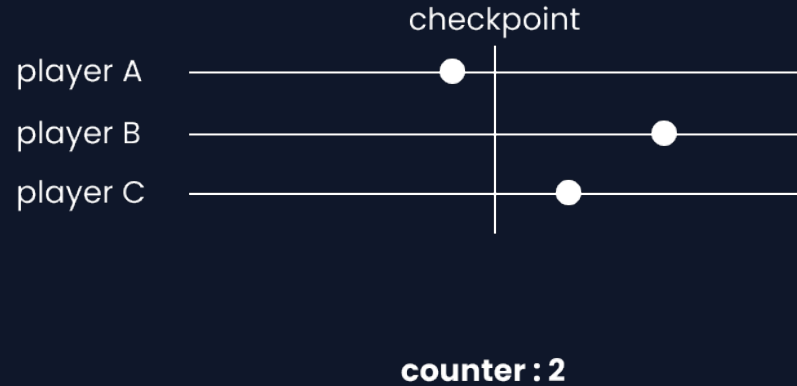
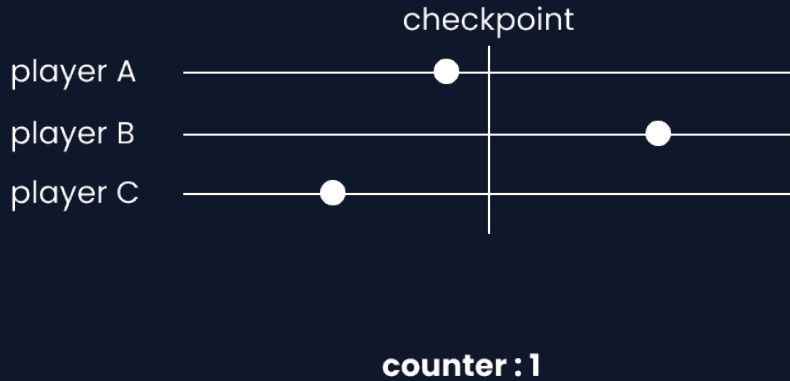
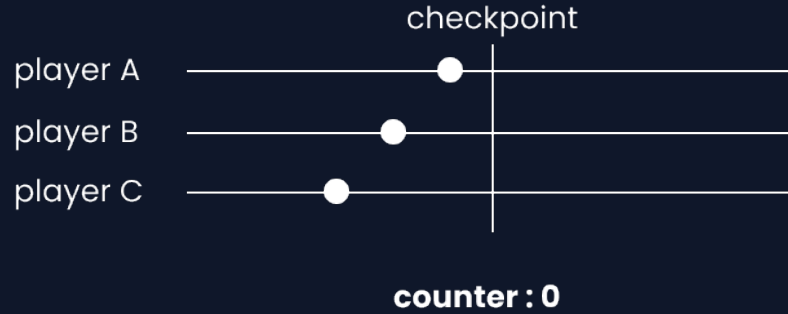
Rigidbody	
Mass	70
Drag	5
Angular Drag	4
Use Gravity	<input checked="" type="checkbox"/>

REWORKED PLAYER & COLLIDER VALUES

4.

CHECKPOINTS & RANKS

How to know who will come first



RANKING CHECKPOINT SYSTEM

```

1 // Update the list of checkpoints visited by the kart
2 if (kartController.UpdateCP(i))
3 {
4     // Increment the encountered checkpoint value
5     SendAugmentation(i);
6     print("currRank: " + kartController.racePosition);
7     print("newRank: " + (checkpointCounters[i] + 1));
8
9     // Swap both ranks
10    int swapWith = (checkpointCounters[i] + 1) % PhotonNetwork.CurrentRoom.PlayerCount;
11    print("swapping with the guy at index : " + swapWith);
12    playerPersoRank = swapWith;
13    rankUI.text = playerPersoRank.ToString();
14
15    SwapRanks(PhotonNetwork.LocalPlayer, swapWith);
16 }
17
18 // Detect a new lap
19 if (i == checkpointManager.checkpoints.Count - 1)
20 {
21     if (kartController.CheckLap())
22     {
23         lapCounter.text = (int.Parse(lapCounter.text) + 1).ToString();
24     }
25 }

```

UPDATE CHECKPOINT FUNCTION

```
1 private void SwapRanks(Player p1, int rank)
2 {
3     Player p2 = null;
4     int i = 0;
5     while ((p2 is null) && i < PhotonNetwork.PlayerList.Length)
6     {
7         print("Player " + PhotonNetwork.PlayerList[i].NickName + "is at place " + ReadPlayer
8 Pos(PhotonNetwork.PlayerList[i]));
9         if (ReadPlayerPos(PhotonNetwork.PlayerList[i]) == rank) p2 = PhotonNetwork.PlayerLis
10 t[i];
11         i++;
12     }
13     SwapPlayerRank(p1, p2);
14 }
```

SWAP RANKS METHOD FOR CHECKPOINT

5.

AESTHETICS & POWER-UPS

Kart wheels, particles etc



KART WHEELS & PARTICLES



NEW SKYBOX

THANKS!

Any questions?