LAB 04 MANEJO DE COLISIONES

* entrar a un trigger
* mantenernos
* salir

En esta sección aprenderemos el manejo de triggers

En esta aplicación queremos recolectar todos los cubos que se

encuentran en el suelo en menos de 10 segundos.

Al final en consola debe mostrar el número de cubos que ha recolectado

Paso 1.

* Creamos un escenario con un plano

de x 100 y 0.01 z 100

* creamos una Esfera que va hacer nuestro player
* creamos un cubo con dimensiones de 0.2 por cada lado

Hierarchy 
Untitled* 
Main Camera 
Directional Light 
cube 
cube (2) 
cube (3) 
Cube (4) 
cube (S) 
cube (6) 
Sphere 
Project 
Favorites 
Q 
All Materials 
Q 
All Models 
Q 
All Prefabs 
Contenid03d 
Scrips 
material 
Scenes 
•sonido 
Packages 
C)tiempo -0,007039009 
IntroduccionUnit,' Untitled PC, Mac & Linux Standalone- Unit/ 2019.2.14fI Personal* 
File Edit Assets GameObject Component Window Help 
(D) ESP 
Collab • 
+ Scene 
Assets 
contenid03d 
Ga me Asset Stor 
o 
O Inspector 
Cube 
Tag untagged 
Transform 
Navigation 
Account 
Layer Defa 
Position 
Rotation 
Scale 
Cube 
Mesh 
Mesh 
Materials 
Size 
Element O 
(Mesh Filter) 
Renderer 
o 
Y 
Y 
Cube 
u 
terreno 
Edit Collider 
None (Physic Material) 
Add Component 
-0.5 
0.01 
Lighting 
Cast Shadons 
Receive Shadons 
Contribute Global Illumination 
Receive Global Illumination 
Probes 
Additional Settings 
Y e u Box Collider 
Is Trigger 
Material 
Center 
Size 
terreno 
Shader 
Layers 
Layout 
Static 
t Generate Lighting Off 
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paso 2.

Seleccionamos la esfera y agregamos los componentes de rigidbody y boxcollider

Sphere Collider 
Edit Collider 
Is Trigger 
Material 
None (Physic Material) 
Center 
Radius 
Rigidbody 
Mass 
Drag 
Angular Drag 
0.05 
use Gravity 
Is Kinematic 
Interpolate 
Collision Detection 
Constraints 
Freeze Position 
Freeze Rotation 
Info 
Y •i' Z Box Collider 
Edit Collider 
Is Trigger 
Material 
None (Physic Material) 
Reference to the Physic Material that determines 
hon this Collider interacts nith others 
•player Controller (Script) 
Lighting Off 
Auto 
Speed 
Time Remaining 
azul 
Shader 
PlayerControIIer 
0.15 
Add Component 

Paso 3

seleccionamos la caja y agregamos el componente de boxcollider

e indicamos que se trata de un trigger

cube (2) 
Transform 
Layer Defa 
Y 
Y 
Cube 
u 
narama 
Edit Collider 
None (Physic Material) 
Add Component 
Static 
0.4 
Position 
Rotation 
Scale 
Cube 
Mesh 
Mesh 
Materials 
Size 
0.3 
z 0.3 
(Mesh Filter) 
Renderer 
Element O 
Lighting 
Cast Shadons 
Receive Shadons 
Contribute Global Illumination 
Receive Global Illumination 
Probes 
Additional Settings 
V v u Box Collider 
Is Trigger 
Material 
Center 
Size 
naranja 
Shader 

Paso 4. Texturas

Creamos un folder llamado material

Hierarchy 
Untitled* 
Main Camera 
Directional Light 
Cube 
cube (2) 
cube (3) 
Cube (4) 
cube (S) 
cube (6) 
Sphere 
Project 
Favorites 
Q 
All Materials 
Q 
All Models 
Q 
All Prefabs 
Assets 
Contenid03d 
Scrips 
— material 
Scenes 
•sonido 
Packages 
C)tiempo -0,007039009 
IntroduccionUnit,' Untitled PC, Mac & Linux Standalone- Unit/ 2019.2.14fI Personal* 
File Edit Assets GameObject Component Window Help 
(D) ESP 
Collab • 
Navigation 
Account 
Layers 
Layout 
+ Scene 
Assets material 
Assets material 
Ga me Asset Stor 
o 
Create 
Show in Explorer 
Open 
Delete 
Rename 
Copy Path 
Open Scene Additive 
Import New Asset... 
Import Package 
Export Package... 
Find References In Scene 
Select Dependencies 
Refresh 
Reimport 
Reimport All 
Extract From Prefab 
Run API Updater... 
Update UIEIements Schema 
Open C# Project 
o 
Alt+Ctrl+C 
Ctrl+R 
Folder 
C# Script 
Shader 
Testing 
Playa b les 
Assembly Definition 
Assembly Definition Reference 
Text MeshPro 
Scene 
Prefab Variant 
Audio Mixer 
Lens Flare 
Render Texture 
Lightmap Parameters 
Custom Render Texture 
Sprite Atlas 
Sprites 
Animator Controller 
Animation 
Animator Override Controller 
Avatar Mask 
Timeline 
Signal 
Physic Material 
Physics Material 20 
GUI Skin 
Custom Font 
Legacy 
UIEIements Editor Window 
Brush 
Terrain Layer 
O Inspector 
material 
Asset Labels 
Assetaundle 
to Generate Lighting Off 
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creamos los materiales que requerimos

paso 5.

Agregamos el comportamiento a nuestra esfera

|  |  |
| --- | --- |
| PlayerController | using System;  using System.Collections;  using System.Collections.Generic;  using UnityEngine;    public class PlayerController : MonoBehaviour  { public float speed=0.15f;  // Start is called before the first frame update  void Start()  {    }    // Update is called once per frame  void Update()  {  if(Input.GetKey(KeyCode.UpArrow)){  transform.Translate(new Vector3(0,0,speed));  }  if(Input.GetKey(KeyCode.DownArrow)){  transform.Translate(new Vector3(0,0,-speed));  }  if(Input.GetKey(KeyCode.RightArrow)){  transform.Translate(new Vector3(speed,0,0));  }  if(Input.GetKey(KeyCode.LeftArrow)){  transform.Translate(new Vector3(-speed,0,0));  }  }    private void OnTriggerEnter(Collider other)  { if (other.tag == "caja")  {  Destroy(other.gameObject);  }  }  } |

paso 6.

Agregamos tiempo

|  |  |
| --- | --- |
| playerController | using System;  using System.Collections;  using System.Collections.Generic;  using UnityEngine;    public class PlayerController : MonoBehaviour  { public float speed=0.15f;  public float timeRemaining = 10;      // Start is called before the first frame update  void Start()  {    }  // Update is called once per frame  void Update()  { if (timeRemaining > 0)  { timeRemaining -= Time.deltaTime;  move();  }  Debug.Log("tiempo "+timeRemaining);  }    private void OnTriggerEnter(Collider other)  { if (other.tag == "caja")  {  Destroy(other.gameObject);  }  }      private void move()  {if(Input.GetKey(KeyCode.UpArrow)){  transform.Translate(new Vector3(0,0,speed));  }  if(Input.GetKey(KeyCode.DownArrow)){  transform.Translate(new Vector3(0,0,-speed));  }  if(Input.GetKey(KeyCode.RightArrow)){  transform.Translate(new Vector3(speed,0,0));  }  if(Input.GetKey(KeyCode.LeftArrow)){  transform.Translate(new Vector3(-speed,0,0));  }  }  } |

Ejercicio