

```

1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine;
4
5 public class Player : MonoBehaviour
6 {
7     public float speed;
8     public bool collide;
9     public float jumpForce = 5;
10    public float walkSpeed = 1;
11    private Rigidbody2D rb;
12    private SpriteRenderer sprite;
13    private Vector2 moveVelocity;
14
15    private int eggCount = 0;
16    private int redbullCount = 0;
17
18    public GameObject lvlManager;
19
20    public GameObject laserPrefab;
21
22    bool onCooldown = false;
23    float cooldown = 3f;
24    float deathBoundray = -10f;
25
26    //on startup (first frame)
27    void Start()
28    {
29        rb = GetComponent<Rigidbody2D>();
30        sprite = GetComponent<SpriteRenderer>();
31
32    }
33
34    //on frame update
35    void Update()
36    {
37        if(GameObject.Find("LevelManager").GetComponent<LevelManager>
38    (.gameOver)
39        {
40            return;
41        }
42        Debug.Log(cooldown);
43        cooldown -= Time.deltaTime;
44        if (cooldown <= 0)
45        {
46            onCooldown = false;
47        }
48        else if (cooldown > 0)
49        {
50            onCooldown = true;
51        }
52        if (onCooldown == false)
53        {
54            FireLaser();
55        }
56    }
57
58    // called every physics step (not attached to frames)
59    void FixedUpdate()
60    {

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60         if (GameObject.Find("LevelManager").GetComponent<LevelManager>
().gameOver)
61         {
62             return;
63         }
64         if (transform.position.y < deathBoundray)
65         {
66             GameManager.control.ResetLevel();
67         }
68         RaycastHit2D hit;
69         hit = Physics2D.Raycast(transform.position - sprite.bounds.extents,
transform.TransformDirection(Vector3.down * 0.1f));
70         Ray2D surfaceCheck = new Ray2D(transform.position -
sprite.bounds.extents, Vector2.down * 0.1f);
71         Debug.DrawRay(transform.position - new Vector3(0, .5f, 0),
Vector2.down * 0.1f, Color.red);
72         Vector2 moveDirection = rb.velocity;
73         //enables jumping if space key is pressed
74         if (Input.GetAxis("Vertical") > 0 && hit && hit.transform !=
transform && hit.distance < .2f)
75         {
76             Debug.Log(hit.transform.gameObject.name);
77             moveDirection.y = jumpForce;
78         }
79         //2d Vector, enables horizontal movement input
80         moveDirection.x = Input.GetAxis("Horizontal") * walkSpeed;
81         rb.velocity = moveDirection;
82     }
83
84     public int GetComponentCount()
85     {
86         return redbullCount + eggCount;
87     }
88
89     private void FireLaser()
90     {
91
92         if (eggCount == 3 && redbullCount == 1 && Input.GetKeyDown("space"))
93         {
94             Debug.Log("LASER");
95             Instantiate(laserPrefab, new Vector3(transform.position.x + 3f,
transform.position.y, 0), laserPrefab.transform.rotation);
96             cooldown = 3f;
97             onCooldown = true;
98         }
99     }
100
101     private void OnCollisionEnter2D(Collision2D collision)
102     {
103         if (collision.transform.CompareTag("egg"))
104         {
105             eggCount++;
106             Destroy(collision.gameObject);
107             GameObject.Find("LevelManager").GetComponent<LevelManager>
().CreateComponent("egg");
108         } else if (collision.transform.CompareTag("redbull"))
109         {
110             redbullCount++;
111             Destroy(collision.gameObject);

```

```
112         GameObject.Find("LevelManager").GetComponent<LevelManager>  
113         ().CreateComponent("redbull");  
114  
115         } else if (collision.transform.CompareTag("birb"))  
116         {  
117             GameManager.control.ResetLevel();  
118         }  
119     }  
120  
121  
122 }  
123
```