

## #6-03ソースコード

### Player.cs

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class Player : MonoBehaviour {
    int score;          //スコア

    public UnityEngine.UI.Text scoreValue;

    float downSpeed;    //落下速度
    Rigidbody2D rb;      //物理演算コンポーネント
    Animator animCtrl;   //アニメーションコントロール
    AudioSource audioSource; //オーディオコンポーネント

    public AudioClip[] sounds;

    public bool IsStop;  //停止モード

    // Use this for initialization
    void Start() { //初期化处理
        rb = GetComponent<Rigidbody2D>();
        animCtrl = GetComponent<Animator>();
        audioSource = GetComponent<AudioSource>();

        Reset();
    }

    // Update is called once per frame
    void Update() {
        if (IsStop) return;

        RaycastHit2D hit;
        //下方向チェック
        hit = Physics2D.Raycast(transform.position + new Vector3(-0.32f, -0.32f), Vector2.right,
0.64f);
        if (hit.transform != null) {
            downSpeed = 0;          //すぐ下がってめり込んでしまうのに対処
            animCtrl.SetBool("IsGround", true);
            if (Input.GetButtonDown("Jump")) { //ジャンプのボタン判定
                downSpeed = 6.5f;
                transform.Translate(Vector3.up * 0.01f); //ジャンプしてもRaycastに引っかかってしまう対策
                audioSource.PlayOneShot(sounds[0]);
            }
        } else {
            animCtrl.SetBool("IsGround", false);
            downSpeed += -0.3f;      //落下速度をどんどん早くする
        }

        //上方チェック
        hit = Physics2D.Raycast(transform.position + new Vector3(-0.32f, 0.32f), Vector2.right,
0.64f);
        if (hit.transform != null) {
            downSpeed = -0.1f;
            transform.position += new Vector3(0, -0.1f, 0);
        }
    }
}
```

```

    }

    hit = Physics2D.Raycast(transform.position + new Vector3(0.34f, 0.26f), Vector2.down,
0.52f);
    if (hit.transform != null) {
        //障害物に当たった
        animCtrl.SetBool("IsIdle", true);
    } else {
        //障害物に当たっていない
        animCtrl.SetBool("IsIdle", false);
    }

    Vector2 nowpos = rb.position;
    nowpos += new Vector2(1, downSpeed) * Time.deltaTime;
    rb.MovePosition(nowpos);

    animCtrl.SetFloat("DownSpeed", downSpeed);
}

private void OnTriggerEnter2D(Collider2D collision) {
    collision.gameObject.SetActive(false);
    score += 1; //スコア1点加算
    scoreValue.text = score.ToString(); //スコアの表示
    audioSource.PlayOneShot(sounds[1]);
}

public void Reset() {
    downSpeed = 0;
    score = 0;
    scoreValue.text = score.ToString(); //スコアの表示
    IsStop = true;
    animCtrl.SetBool("IsIdle", true);
    transform.position = new Vector3(0, -1.62f, 0);
}
}

```