

Create a character script which collects a whole character. Therefore, every character game object only consists of just a Transform component and the Character script, which creates and adds all necessary components when the game is run.

The public part of the Character script:(it can change the value of scripts)

Also they are **K_Looks_Goods**:

```
public Sprite catSprite;  
public Sprite humanSprite;  
public RuntimeAnimatorController catAnimator;  
public AudioClip catCaughtSound;  
public AudioClip humanDeadSound;  
public float catMoveSpeed = 6f;  
public float catRotationSpeed = 130f;  
public float catFireSpeed = 1f;  
public int humanHitPoint = 3;  
public float humanMoveSpeed = 5f;  
public float humanRotatSpeed = 50f
```

we do the initialization in the Awake() function

awake():

for both cat/human, we need to add components: no matter how these components will be reset later, they should be added first.

SpriteRenderer spRender; Rigidbody2D RBody2D; AudioSource auSource

set gravity scale of RBody2D to 0 for cat or human, then it won't drop out of the screen.

RBody2D.gravity = 0

If, the current character is cat (tag == "Cat"), set things for cat:

Set sprite and sortingLayer for cat

Set spRender.sprite = catSprite

Set spRender.sortingLayerName = "characters";

Set Collider2D components for cat

Add components:

CircleCollider2D cirCollide; BoxCollider2D boxColCat

PolygonCollider2D polyCol (this collider is only for fun, but we unable it at most time)

Set colliders properties

cirCollider.offset = new Vector2(-0.1131339f, -0.4774529f);

cirCollider.radius = 0.4398445f;

boxColCat.offset = new Vector2(0.6331149f, -0.4399056f);

boxColCat.size = new Vector2(0.627313f, 0.1023629f);

polyCol.enabled = false;

polyCol.isTrigger = true;

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```
polyCol.usedByEffector = true;
```

Set animator for cat

```
Animator catAnim //create an animator
```

Set animator properties

```
catAnim.runtimeAnimatorController = catAnimator;
```

Set Audio Source properties for cat

```
auSource.clip = catCatchedSound;
```

```
auSource.playOnAwake = false;
```

Set script (controller) for cat

```
PlayerController catMove
```

Set script properties

```
catMove.movement_speed = catMoveSpeed;
```

```
catMove.rotation_speed = 130f;
```

```
catMove.fire_Rate = 1f;
```

```
return; //if the character is cat, it can end here.
```

now we set things for human

set rigid body properties for human

```
RBody2D.mass = 10000;
```

```
RBody2D.freezeRotation = true;
```

```
RBody2D.angularDrag = 0.05f;
```

```
RBody2D.bodyType = RigidbodyType2D.Dynamic;
```

```
RBody2D.simulated = true;
```

Set sprite and sortingLayer for human

```
spRender.sprite = humanSprite; spRender.sortingLayerName = "human";
```

Set Collider2D components for human

```
BoxCollider2D boxCol; boxCol.size = new Vector2(0.746667f, 0.553333f);
```

Set Audio Source properties for human

```
auSource.clip = humanDeadSound; auSource.playOnAwake = false;
```

Set scripts (controller) for human

```
HumanAI aiHuman; HumanController humanControl
```

Set scripts properties

```
aiHuman.hitpoint = humanHitPoint; aiHuman.speed_move = humanMoveSpeed;
```

```
aiHuman.speed_rotate = humanRotatSpeed;
```