

# Ragdoll Creatures

A blue stick figure is positioned between the words 'Ragdoll' and 'Creatures'. The figure is standing on the 'Creatures' word, holding a sword vertically, with the tip of the sword touching the 'l' in 'Ragdoll'.

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## Links:

[Unity Asset Store](#)

[Support E-Mail](#)

[Youtube Channel](#)

## Introduction

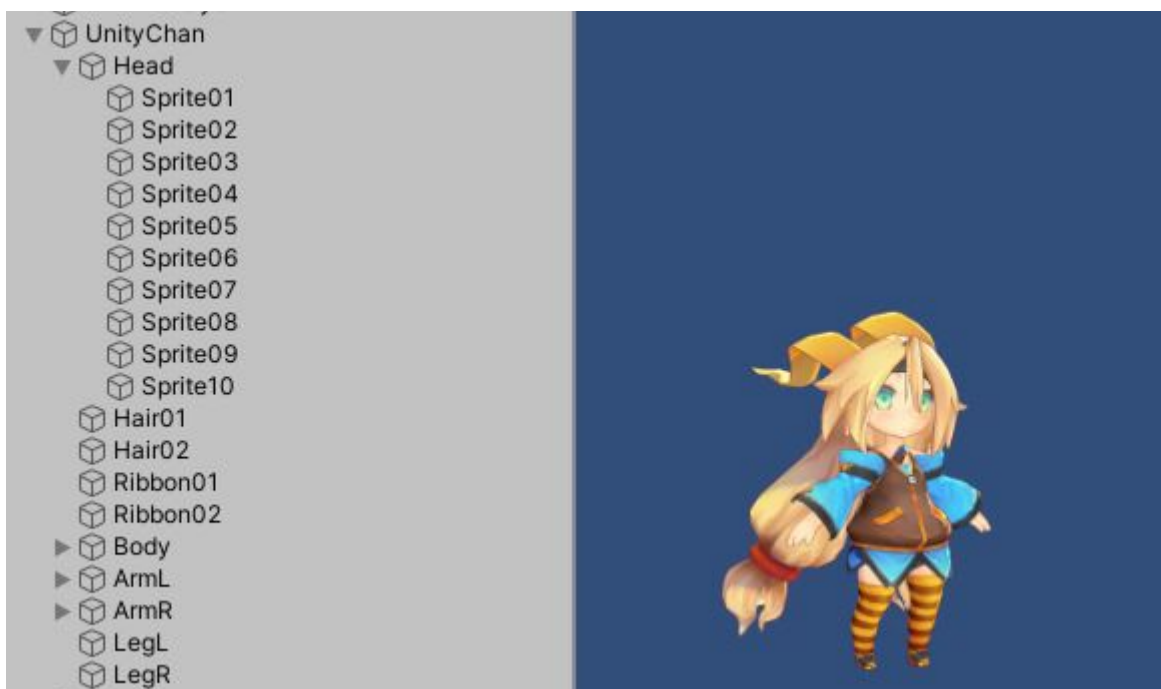
You love funny, hilarious, clumsy, physics based games? Then you are in the right place. With Ragdoll Creatures you can easily create your own 2D Active Ragdolls. No matter if you want to make a physics puzzle or a couch Co-Op/PvP game, with this asset only a few steps are necessary to add a physics based player.

## Getting started

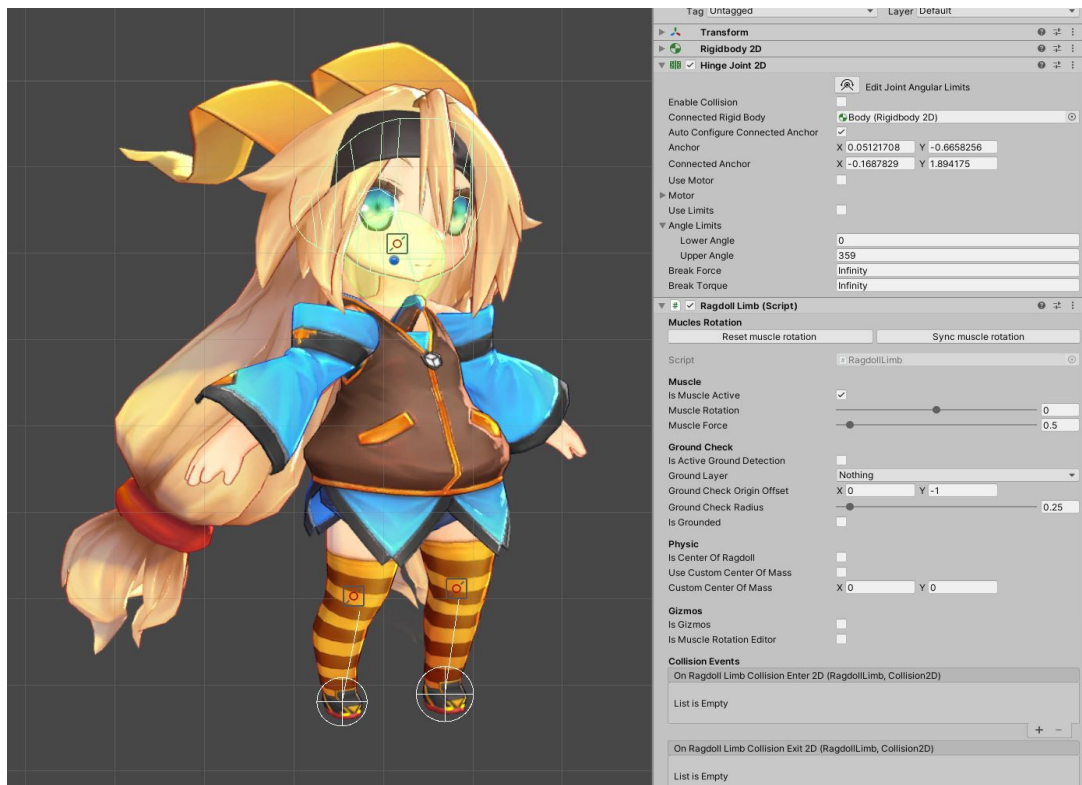
For reference see the UnityChan demo:

*/RagdollCreatures/Demos/Scenes/UnityChan*

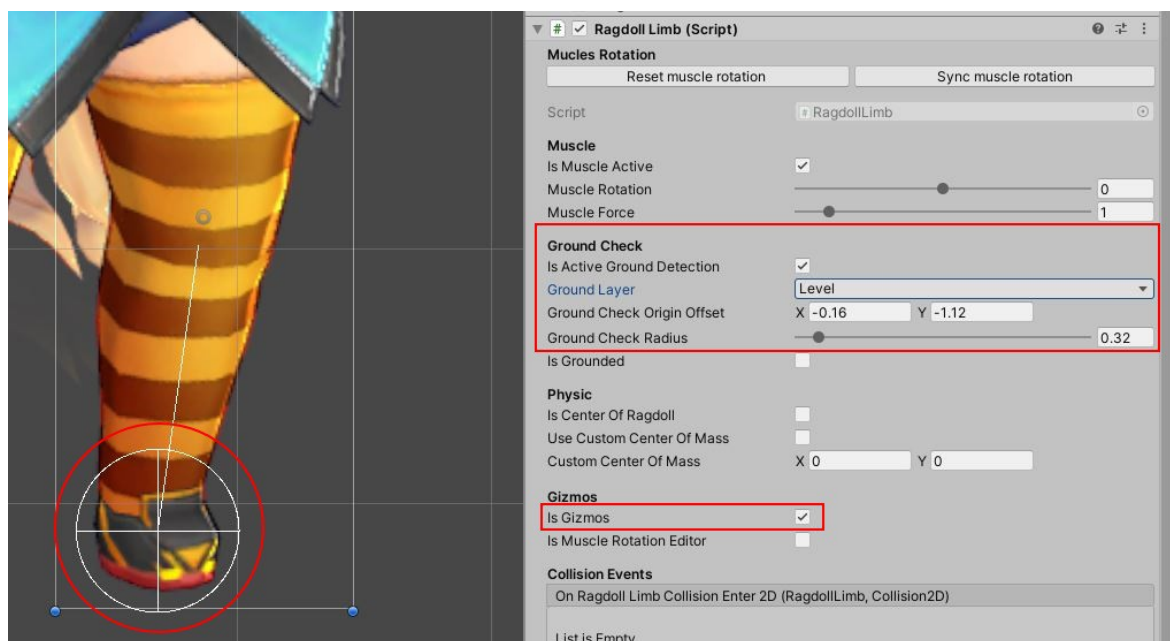
1. Prepare your character by placing the body parts with the sprites in the right position. If a limb consists of several sprites, then add them all as child objects. Like for example the head of UnityChan.



2. Next you connect all body parts with the desired joints. HingeJoint2D and FixedJoint2D are recommended. Additionally you should add a collider to all body parts.



3. Then add the RagdollLimb script to each body part. Finally, add the RagdollCreatureController (or only the RagdollCreature) script to the root object.
4. Adjust the Ground Check (In case of UnityChan only on the legs)  
→ The circle gizmo shows the actual collision zone for the ground check



5. Adjust the InputSystem and Press Play.

## Using the new Unity Input System

For more information please click here

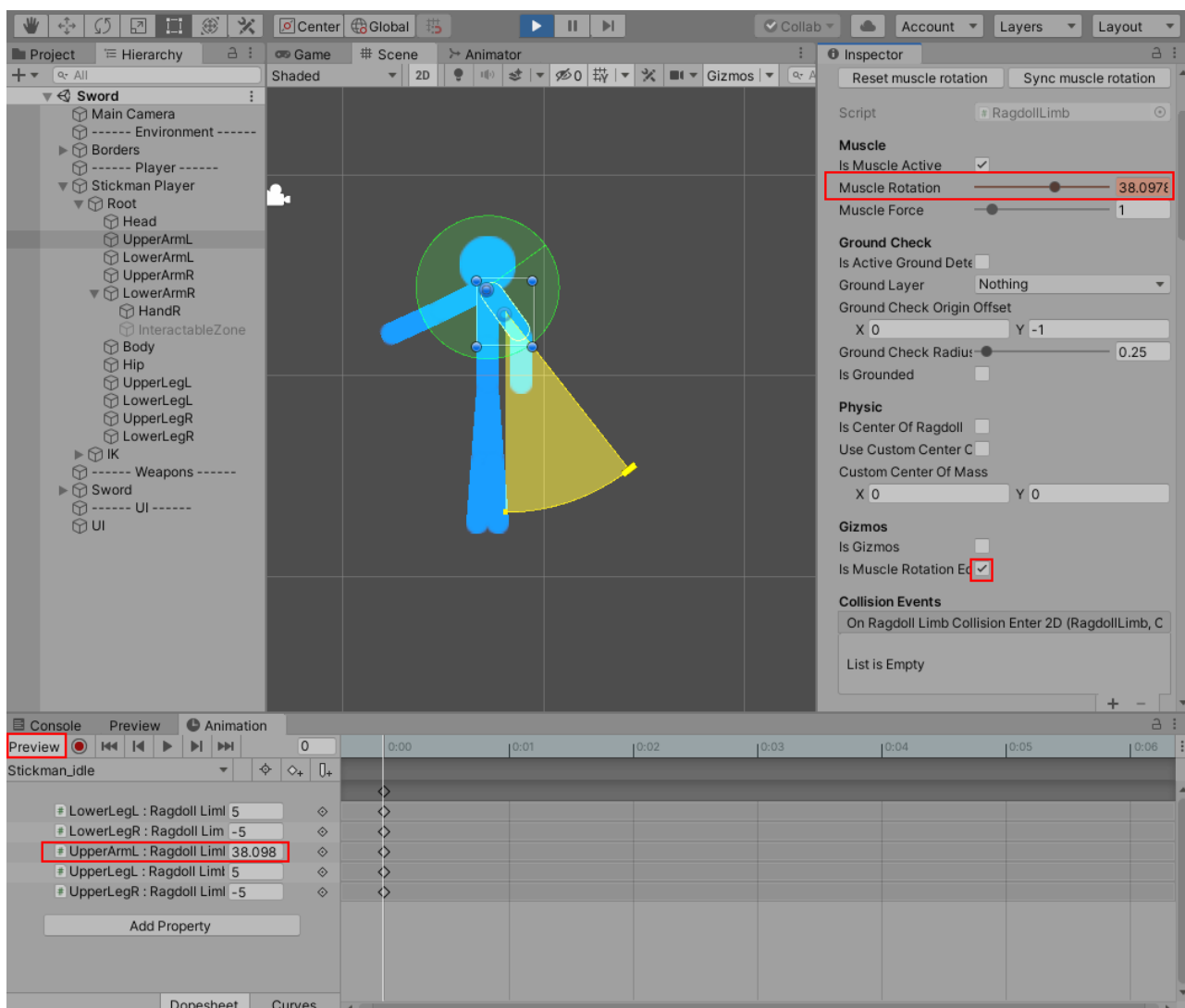
<https://docs.unity3d.com/Packages/com.unity.inputsystem@1.0/manual/QuickStartGuide.html>

or have a look at the RagdollCreature Demo Scenes.

InputActions: /RagdollCreatures/Demos/Input/

## Animations

To create physics based animations you can use the Unity Animation window. Just add the individual MuscleRotations from the RagdollLimb scripts as a property in the Animation window.



Now you can change the values either with the Inspector or with the MuscleRotation handle (activate it with Gizmos). Important: Activate "Preview" in the Animation window.

## Collision/Trigger Events

For each limb of a ragdoll has UnityEvents for collisions, to which you can bind any number of actions. This is useful to react differently to each body part hit. To create an action you only have to use a certain method signature. In the following these methods are described and it is explained how to use these methods and bind them to an event.

Use this method to create an action for OnCollisionEnter2D or OnCollisionExit2D events. (The method name can be chosen freely)

```
public void OnCollisionAction(RagdollLimb limb, Collision2D col)
{
    // Action code here
}
```

Use this method to create an action for OnTriggerEnter2D or OnTriggerExit2D events. (The method name can be chosen freely)

```
public void OnTriggerAction(RagdollLimb limb, Collider2D col)
{
    // Action code here
}
```

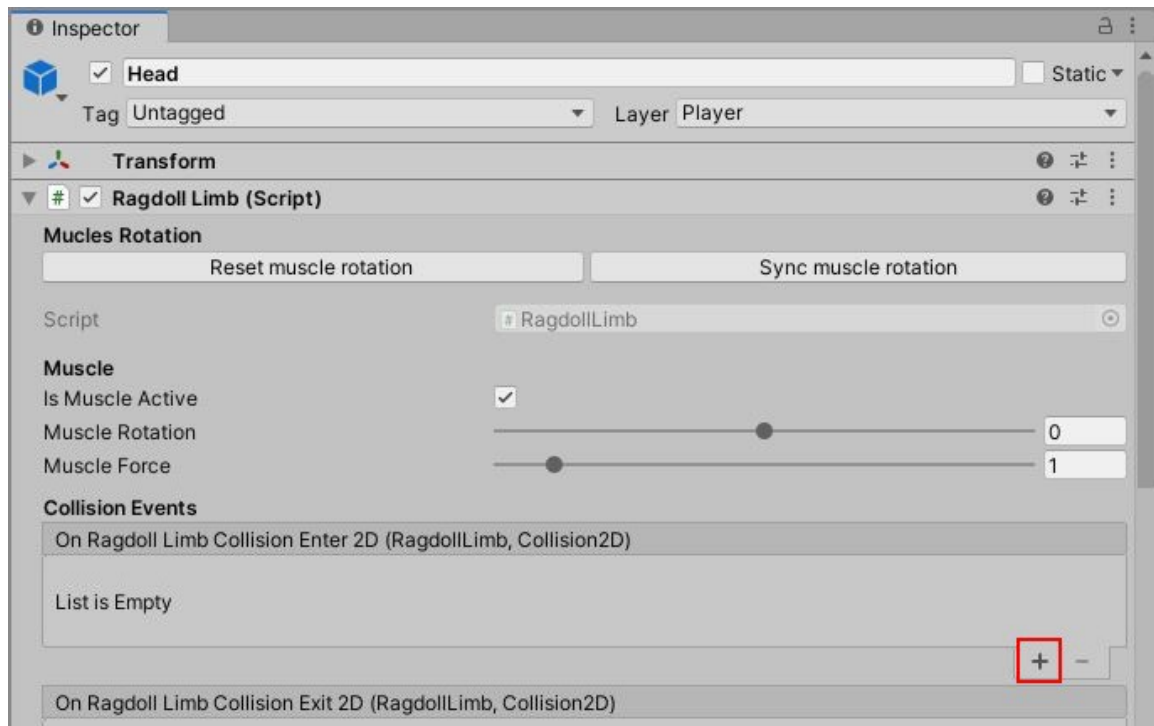
### Example:

1. Create script with a collision event action method

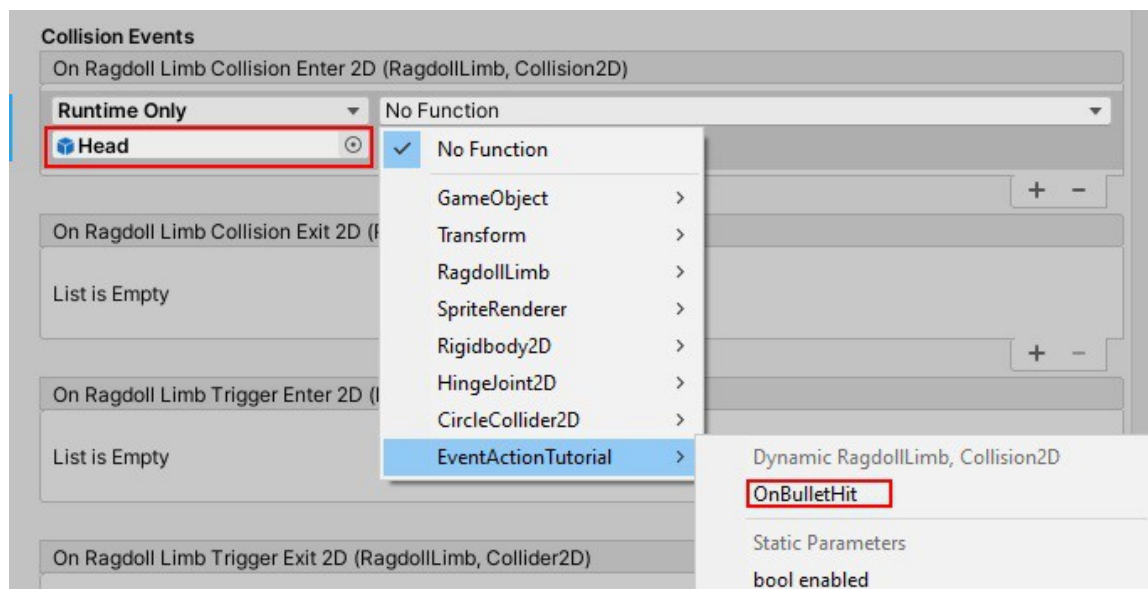
```
1  using RagdollCreatures;
2  using UnityEngine;
3
4  public class EventActionTutorial : MonoBehaviour
5  {
6      public void OnBulletHit(RagdollLimb limb, Collision2D col)
7      {
8          if (col.collider.tag == "Bullet")
9          {
10             // doDamage(10);
11             // or playHitEffect();
12          }
13      }
14  }
```

2. Add script to an GameObject

### 3. Add new action slot in Inspector



### 4. Add the GameObject with the attached script and bind the action method to the event



## FAQ

**Q:** I added the RagdollCreatureContoller script. Why I cannot move the character?

**A:** *You may have to assign the Input-Events first. Please have a look at the chapter 'Using the new Unity Input system'.*

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**Q:** I would like to create new animations. Why I cannot adjust MuscleRotation of the individual limbs using the Editor/Inspector?

**A:** *To create new animations you have to activate 'Preview' in the Unity Animation window and the Limb (MuscleRotation) has to be in the Animation window as a property.*

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**Q:** Why can't I move the MuscleRotation handle?

**A:** *Sometimes you have to manually change the rotation in the Inspector for the first time to make the handle adjustable.*

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**Q:** Why do the limbs not point directly to the IK target?

**A:** *In some cases it is necessary to set an offset in the RagdollLimbIK script.*