Decayed Zombie A - Read Me

Studio New Punch

Thank you for buying Decayed Zombie A! This guide explains what is in the pack, how to get the zombie running in a few minutes, and how to customize it.

Questions or problems? We are happy to help:

- **Discord support:** https://discord.com/invite/pg8xJfpnBr
- **Website:** https://www.studionewpunch.com/

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1. Quick start (2 minutes)

1. Open `DecayedZombieA_UE5/Maps/DecayedZombie_A_TestMap`.
2. Press Play. You control the Body Parts zombie in third person.

To use the zombie in **your** level:

- **As the player:** drag `BP_DecayedZombie_A_UE5_Player` (or the `_BodyParts_` version) into your level, or set it as the Default Pawn Class in your Game Mode.
- **As an enemy / NPC:** drag `BP_DecayedZombie_A_UE5_NPC` into your level and give it your own AI Controller.

Demo controls (in the test map)

Input	Action
W A S D	Move
Mouse	Look around
Space	Jump
Left Shift	Hold to run
Left Mouse	Ragdoll: the zombie collapses with physics

2. What is in the pack

Folder	Contents
`Blueprints/`	The 6 ready-to-use character Blueprints
`Maps/`	`DecayedZombie_A_TestMap` (demo level)
`Materials/`	2 master materials and 5 material instances
`Mesh/`	The full-body mesh, skeleton and physics assets
`Mesh/BodyParts/`	The 13 body parts, the pants and their physics assets
`Rigs/`	IK Rig, IK Retargeter and Control Rigs
`Textures/`	All 16 textures
`DemoAssets/`	Epic's Third Person demo content: Manny, animations, input, game mode, prototype level meshes

Two versions of the character

- **One Mesh:** `SK_DecayedZombie_A`, one skeletal mesh plus separate pants. The cheapest to render. Use it unless you need dismemberment.
- **Body Parts:** the same zombie built from 13 separate meshes (head, torso, arms, forearms, hands, legs, knees, feet) plus the pants. Built for dismemberment and damage systems.

Both versions share one skeleton, one set of materials and the same animations, so you can switch between them at any time.

3. The Blueprints

Each version comes as three Blueprints:

Blueprint	Purpose
`BP_DecayedZombie_A_UE5`	Base: all customization lives here
`BP_DecayedZombie_A_UE5_Player`	Child: playable, third-person camera
`BP_DecayedZombie_A_UE5_NPC`	Child: for AI / placing in levels
`BP_DecayedZombie_A_BodyParts_UE5`	Body Parts base
`BP_DecayedZombie_A_BodyParts_UE5_Player`	Body Parts, playable
`BP_DecayedZombie_A_BodyParts_UE5_NPC`	Body Parts, for AI / placing in levels

Tip: put your own game logic in the `_Player` / `_NPC` children, or in your own child Blueprint. Then a future update of the base Blueprint will not overwrite your work.

Note: the `_NPC` Blueprints still contain the camera parts they inherit from the base. They are inactive and cost nothing, but Unreal does not allow a child Blueprint to delete inherited components.

4. Customizing the zombie

Select a zombie in your level and look at the Details panel. On the One Mesh Blueprint, the mouth variable is called "Open Mouth" instead of "Zombie Open Mouth".

Customization Variables (update instantly in the editor)

Variable	What it does
Body Materials ID	Which skin to use (0 or 1)
Pants Materials ID	Which pants material to use (0, 1 or 2)
Pants Visible	Show or hide the pants
Eyes Glow	Glowing eyes: 0 = off, higher values = brighter glow

Morph Targets (applied when you PLAY the level)

Variable	Range
Zombie Open Mouth	0 = closed ... 1 = fully open
Zombie Angry	0 = neutral ... 1 = full angry expression
Close Eye L	0 = open ... 1 = closed
Close Eye R	0 = open ... 1 = closed

The Blueprint applies the morph targets every frame while the game runs, so you won't see them change in the editor viewport. Press Play to see them. You can also change these variables from your own gameplay code at runtime, for example to open the mouth during an attack.

Every zombie in a level can have its own settings, so a few copies with different skins, pants and expressions quickly make a crowd.

5. Animations

NO ZOMBIE ANIMATIONS ARE INCLUDED. The pack contains only Epic's Third Person example animations (idle, walk, run, jump, fall, land) so you can test the character straight away.

The zombie is rigged to the UE5 Manny skeleton, and its skeleton is marked compatible with Manny in both directions. Any animation made for the UE5 Mannequin plays on it directly: marketplace packs, your own animations and Epic's. You don't need to retarget or duplicate animation assets.

To use your own animations:

- Open the Anim Blueprint (or Blend Space / Montage) you want to use and point it at the zombie's mesh, or
- Set your Anim Blueprint as the Anim Class of the zombie's Mesh component.

UE4 / Mixamo animations: use the included IK Retargeter (`Rigs/RTG_Manny_to_DecayedZombie_A`) or Unreal's standard retargeting tools. For free Mixamo animations, see "How to use FREE Mixamo.com animations with Unreal Engine" on YouTube. At the 3:08 mark, select `SKEL_DecayedZombie_A_Skeleton`.

Extra bones: `unrealJaw_M`, `unrealEye_L` and `unrealEye_R`. Animations that don't use them simply leave them at rest. Animate them for jaw and eye motion.

Rigs included

Asset	Purpose
`IK_DecayedZombie_A`	IK Rig
`RTG_Manny_to_DecayedZombie_A`	IK Retargeter
`CR_DecayedZombie_A_BasicFootIK`	Foot IK, keeps feet planted on slopes
`CR_DecayedZombie_A_Body`	Body Control Rig, for posing and cinematics in Sequencer

6. Body parts & dismemberment

In the Body Parts Blueprint, the torso is the main mesh. All other parts follow it through Leader Pose, so they animate together as one character.

Every part has its own physics asset (`PHYS_DecayedZombie_A_<Part>`). To detach a part in your game:

1. Clear the part's Leader Pose Component (Set Leader Pose Component with no mesh), so it stops following the torso.
2. Turn on physics for the part (Set All Bodies Simulate Physics = true).
3. Optionally hide it, spawn a blood effect, or swap in a stump.

7. Materials & textures

Material	Variants
Body: `MI_DecayedZombie_A_MAT_V1`, `_V2`	2 skins, 4096x4096
Pants: `MI_DecayedZombiePants_V1`, `_V2`, `_V3`	3 variants, 2048x2048

Every material is an instance of one of two master materials. To make your own variant:

1. Duplicate a material instance.
2. Swap its BaseColor, Normal and OcclusionRoughnessMetallic textures, or tint it with the Color parameter.
3. Add the new instance to the Blueprint's material list, and it becomes selectable with the Materials ID variables.

Textures use the standard Unreal packing: AO in red, Roughness in green, Metallic in blue (the "AO_R_M" textures).

Performance: if you don't need 4K, set a Maximum Texture Size (or a LOD Bias) on the textures, or lower the texture quality in your project settings.

8. Technical details

Spec	Value
Triangles	15,707 (+1,054 pants)
Vertices	8,799 / 4,702 / 2,540 (LOD0 / LOD1 / LOD2)
LODs	3 on every mesh, including each body part
Height	~175 cm
Skeleton	UE5 Manny + jaw and eye bones, IK bones included
Morph targets	4 (head)
Physics	Ragdoll physics asset for the full body and every part
Textures	16 (6 at 4096, 9 at 2048, 1 at 1024)

9. UE4 version

A UE4 version is included too. When you add the pack to a UE4 project, Fab gives you the UE4 version automatically. It is rigged to the Epic UE4 skeleton (with the same jaw and eye bones), and the Blueprint variables work the same way as described above.

10. Troubleshooting

The expression doesn't change in the editor. Expected: morph targets are applied only while the game is running. Press Play.

An animation won't play on the zombie. Make sure it was made for the UE5 Mannequin (or a Manny-compatible skeleton). UE4-skeleton animations need retargeting first, see section 5.

The zombie falls apart when a part is detached. Only clear the Leader Pose on the part you remove, not on the torso.

Enjoy, and if you make something cool with our zombies, we would love to see it on our Discord!

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