

Deformation, Skinning / Weighting (and Blendshapes)

This chapter covers how meshes are deformed by armatures.

It also covers Blendshapes and how they work, since it's also a type of deformation.

- [Armature deformation, what is it and how does it work? \(WIP\)](#)

Armature deformation, what is it and how does it work?

(WIP)

Armature deformation is the reason we built an armature. It allows us to weight/skin vertices to bones, which makes those vertices move along with those bones. This works quite well to simulate the movement of limbs on creatures and robots, while not being very performance intensive.

Weights/Skinning?

As previously stated, weights decide how much a vertex follows a given bone.

These weights are saved in vertex groups, which store a value of 0.000 - 1.000 for every vertex.



Vertex weight groups are assigned to their respective bone via their name, meaning that you shouldn't rename vertex groups for weights unless you also change the bone name to stay identical. This can also be used to change the bone a vertex group is assigned to.