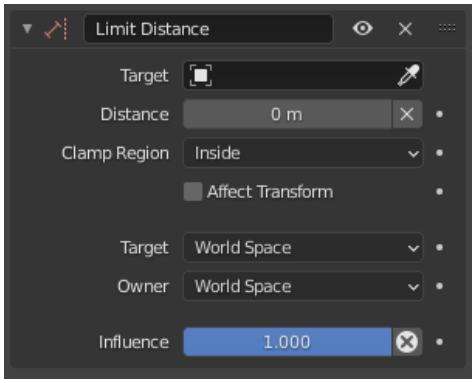
Limit Distance Constraint

The *Limit Distance* constraint forces its owner to stay either further from, nearer to, or exactly at a given distance from its target. In other words, the owner's location is constrained either outside, inside, or at the surface of a sphere centered on its target.

When you specify a (new) target, the *Distance* value is automatically set to correspond to the distance between the owner and this target.

> Important
>
> Note that if you use such a constraint on a *connected* bone, it will have no effect, as it is the parent's tip which controls the position of your owner bone's root.

Options



Limit Distance panel.

Target
: Data ID used to select the constraint's target, and is not functional (red state) when it has none. See common constraint properties for more information.

Distance
: This number field sets the limit distance, i.e. the radius of the constraining sphere.

  ✕ (Reset Distance)
  : Resets the *Distance* value,so that it corresponds to the actual distance between the owner and its target (i.e. the distance before this constraint is applied).

Clamp Region
: Defines how the owner is constrained relative to the spherical boundary, determined by the *Distance* setting and the target's origin:

  Inside:
  : Restricts the owner to remain within the sphere.

  Outside:
  : Prevents the owner from entering the sphere.

  On Surface:
  : Constrains the owner to the sphere's radius.

Affect Transform
: Transform operators will take the constraint into account to immediately restrict the resulting transform property values.

Target/Owner
: Standard conversion between spaces. See common constraint properties for more information.

Influence
: Controls the percentage of affect the constraint has on the object. See common constraint properties for more information.

> Tip

Evaluating both owner and target in a Custom Space using the root bone or any other suitable parent bone will automatically scale the effective distance with the relevant part of the rig.

Example

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