

Simple foot IK

Does **not** require Unity pro. Simple foot IK modifies the animation procedurally so that the feet position and angle matches the ground even if the ground is not flat. Simple foot IK also enables the character to jump and traverse hills and stairs. For normal biped bone riggings Simple foot IK is set-up and auto configured by just dragging and dropping the SimpleFootIK script onto your character. Simple foot IK features IK weighting for smooth enabling/disabling.

Setup

If your character is a biped with thighs, calves, feet and toes and the feet's names contain "foot" and "right" or "left", then just drag and drop the SimpleFootIK script (found in SimpleFootIK/Scripts) onto the character and you are done. The character should be spawned upright and have its transform level with the feet soles.

You may also assign the legs and foot height manually by setting the auto bools to false.

If you experience "vibrating" feet chances are there is a miss-match in that some scripts are running in fixed update and some are not. Also the the animator can be miss-matched if it is / is not, animating physics.

If your character have rigid bodies attached, then those rigid bodies must be on an ignored layer.

Parameters

ignoreLayers

Contains the names of the layers the foot IK raycasts will ignore. If your character have rigid bodies attached, then those rigid bodies must be on an ignored layer.

maxStepHeight

If this value is lower than the encountered step height, the character will not step up.

footIKWeight

A value between zero and one. If zero the foot will go to the animated position, if one it will go to the IK position. Any number in between interpolates between the two positions.

footNormalLerp

Lerp smoothing of the feet's rotation.

footTargetLerp

Lerp smoothing of the feet's position.

transformYLerp

Lerp smoothing of the character's elevation.

autoAssignLegs

You may assign the legs transforms manually if you set this to false.

autoAssignFootHeight

You may assign foot height manually. The foot height is the vertical distance from the foot transform to the foot sole.

groundMagnet

Holds the character a little extra to the ground when grounded.

slopeJump

Factor telling how much of the characters vertical velocity before the jump will be added to the jumpVelocity.

