



CHARACTER ANIMATION BOOTCAMP

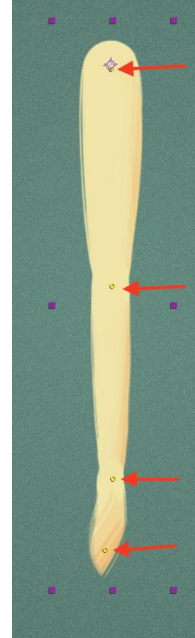
HOW DO I DUIK?

DUIK IN DOUBLE-TIME

This is just a quick reference guide for building a basic IK system with Duik v14. The example here is with puppet pins, but the same procedure will work on limbs with separate layers. Set anchor points and parent for a basic FK system and then proceed with steps 5-8.

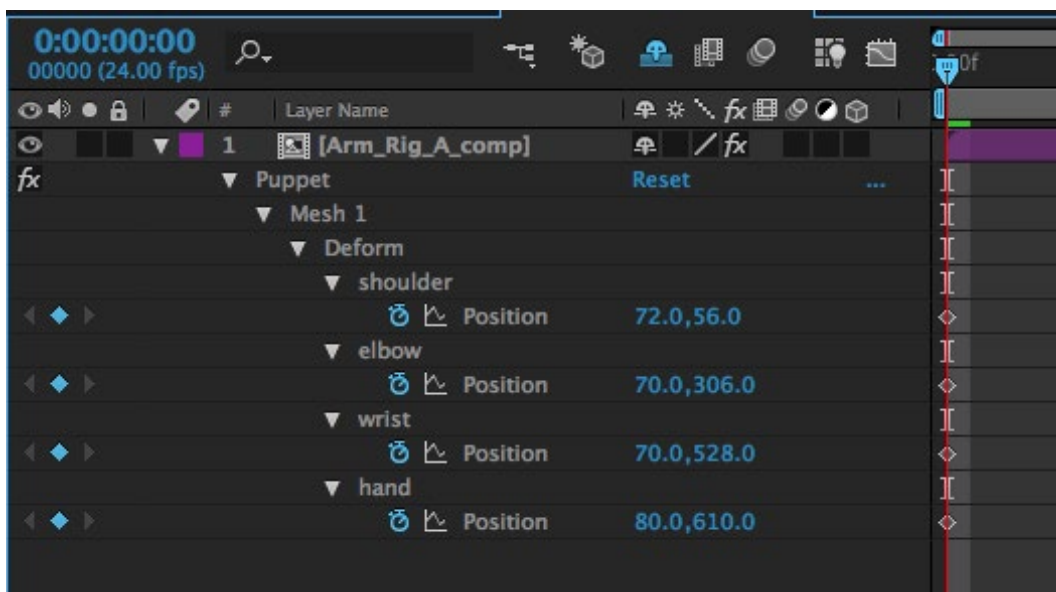
STEP 1

Add puppet pins to layer. Use between 10-20 expansion and 1500 triangles generally. Place pins at joint / pivot points. Make sure you add pins at fingers / toes so the hand can pivot from the wrist / ankle, and if you want the fingers / toes to rotate add extra pins in the middle of hand / feet. For this quick guide, we're skipping the bendy fingers.



STEP 2

Select the layer with the puppet tool applied and click the "U" key to open all keyframed attributes and reveal your pins in the timeline. Name each pin to correspond to its body part. For a full character rig make sure each pin has a unique name.



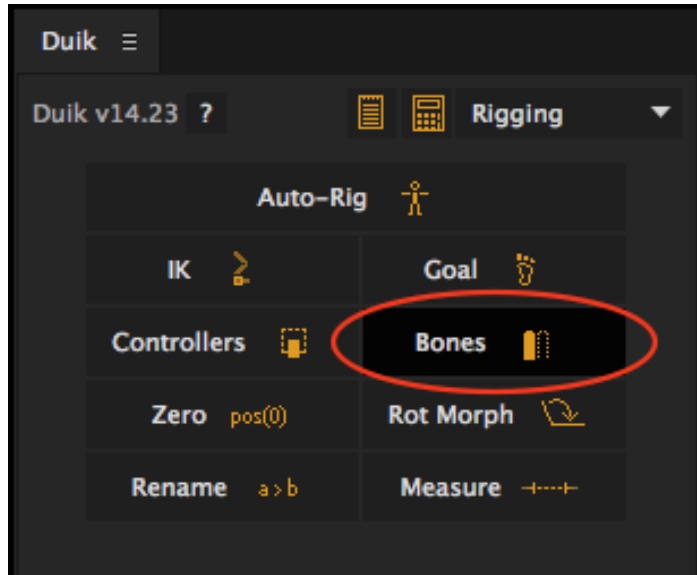


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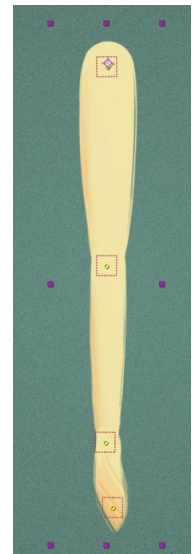
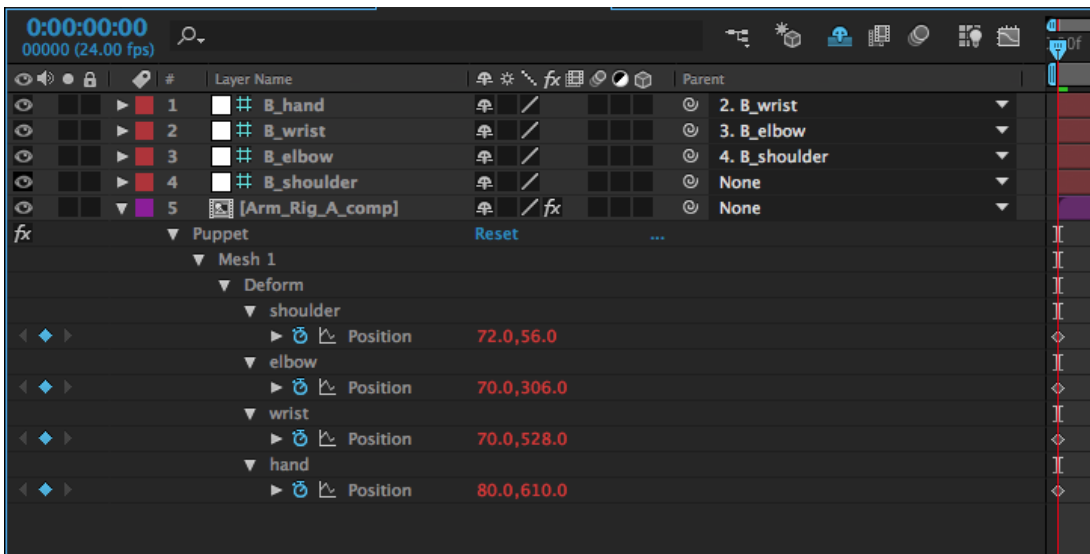
STEP 3

With the layer selected, click the “Bones” button on Duik to “parent” nulls to puppet pins. Duik will name the layers “B_[pin name]”.



STEP 4

Parent the null layers in a simple FK chain. Hand to wrist, wrist to elbow, elbow to shoulder.



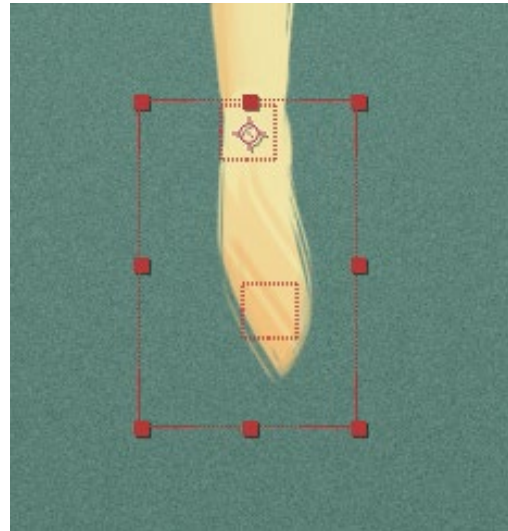
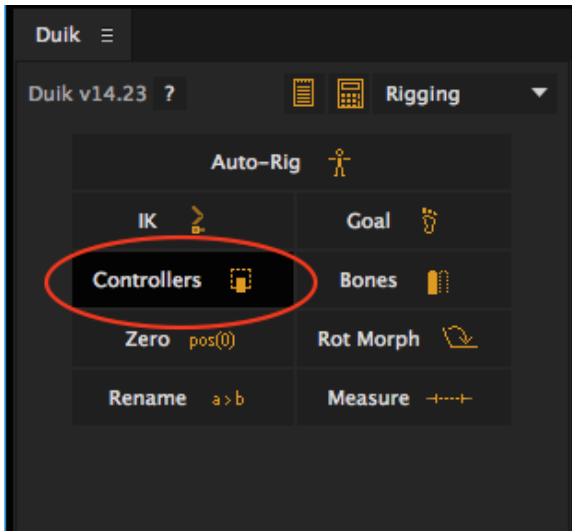


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HOW DO I DUIK?

STEP 5

Select the wrist (or ankle for a leg) and click the “Controller” button on Duik to add a new null at that same anchor point. Adjust the size of the null and the anchor point attribute values so the null object still shares the anchor point with the wrist, but creates an intuitive shape to click and drag. Name the controller something clear and simple like “Left Hand”.

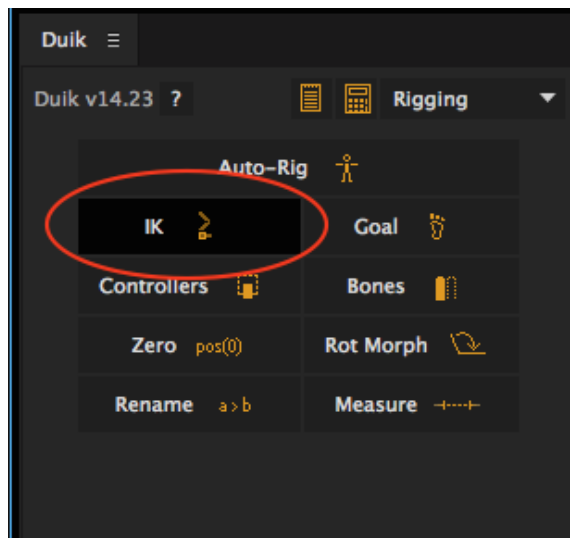


STEP 6

To create the IK chain, first select your layers in EXACTLY this order:

- 1 - bottom of chain (*in this case, the wrist*)
- 2 - middle of chain (*in this case, the elbow*)
- 3 - top of chain (*in this case, the shoulder*)
- 4 - the new controller you just made

Then click the “IK” button on Duik...



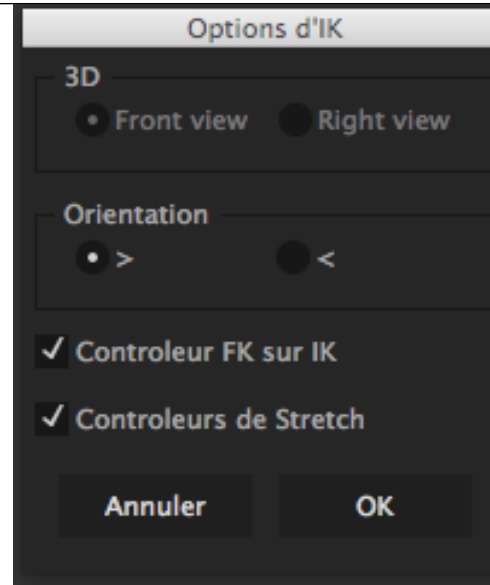
This will open the “IK Options” window...



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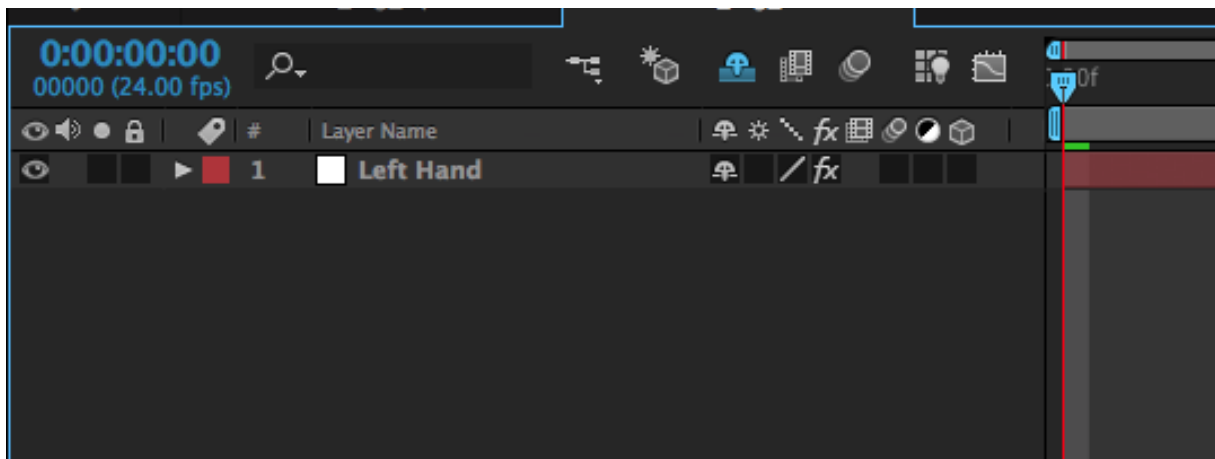
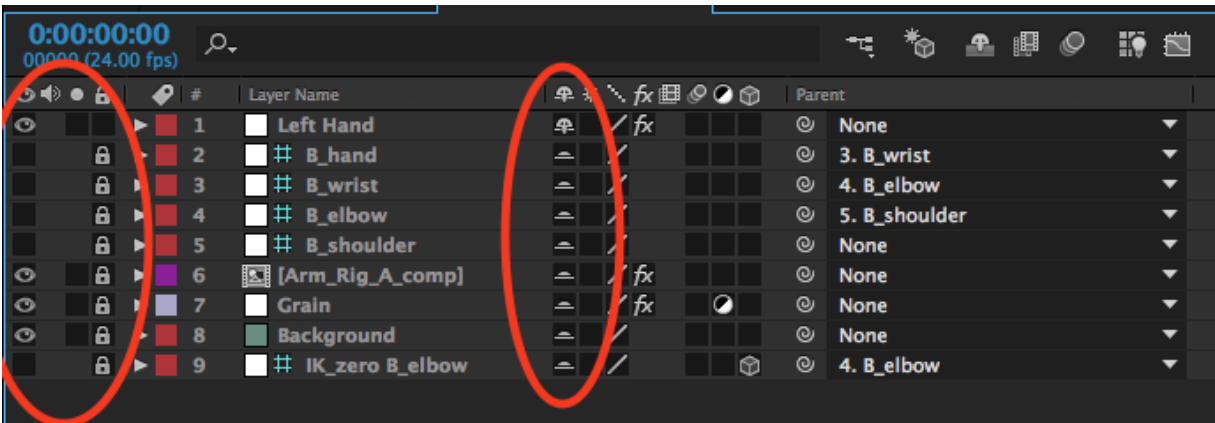
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- Orientation - Sets the default orientation for the IK to bend. You will always be able to switch, this denotes which way the limb will bend with the check box “on”.
- Controleur FK sur IK - Adds the FK/IK switch and FK controls if you want them.
- Controleurs de Stretch - Add stretchy IK and the stretch controls.
- Once you made your choices, click “OK”.



STEP 7

Clean up! Turn off visibility for all but your controller(s) and the artwork layer(s), lock and shy all layers except for controller(s). Hide Parent column for more screen real estate.



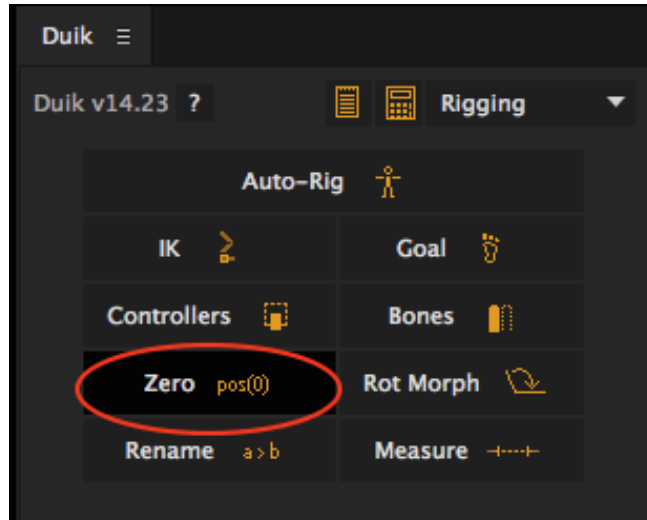


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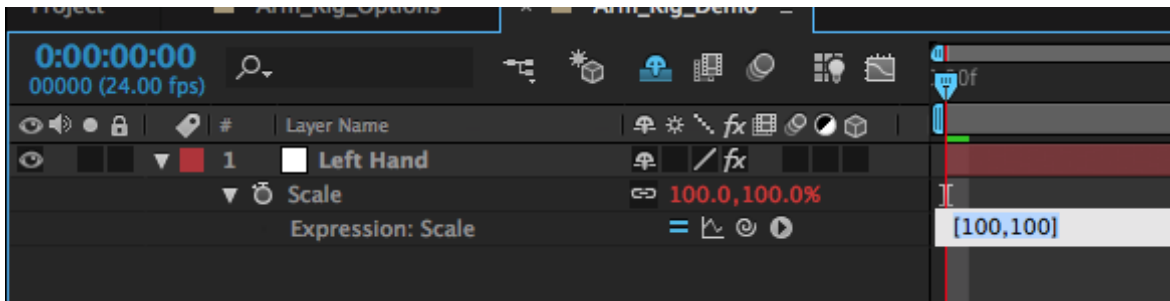
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STEP 8

Prep for animation. Select controller(s) and click the “Zero (pos)” button on Duik to zero out position values.



Select the scale value on the controller(s), Option-Click on the stopwatch to activate expressions and type in [100,100] to “lock” scale.



Add neutral hold keyframes to all common attributes at frame “0”.

