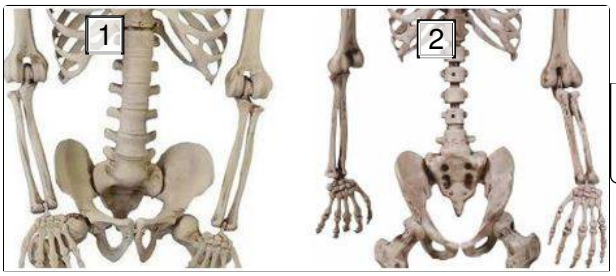
Hack and Repair Plastic Halloween Skeletons

by lime3D

This instructable will show you how to hack and repair Pan Asian Creations (PAC) skeletons. These are commonly sold at Home Depot and Big Lots. They are different than those sold at Walmart and Costco. The PAC skeleton features a wide, hollow lower spine that can be hacked to accept a support rod, and also fully poseable knee joints. (Other types only lock in the fully extended position).

The easiest way the identify a PAC skeleton is to find the PAC logo molded on the inside of the right shoulder blade and/or compare your skeleton to the comparison photo provided here.

Keywords:
Repair Halloween skeletons, repair plastic skeletons, repair skeleton, Halloween skeleton



1. Thick spine of a PAC skeleton
2. Thin spine of a Pose-N-Stay skeleton

Step 1: Make It Stand Up

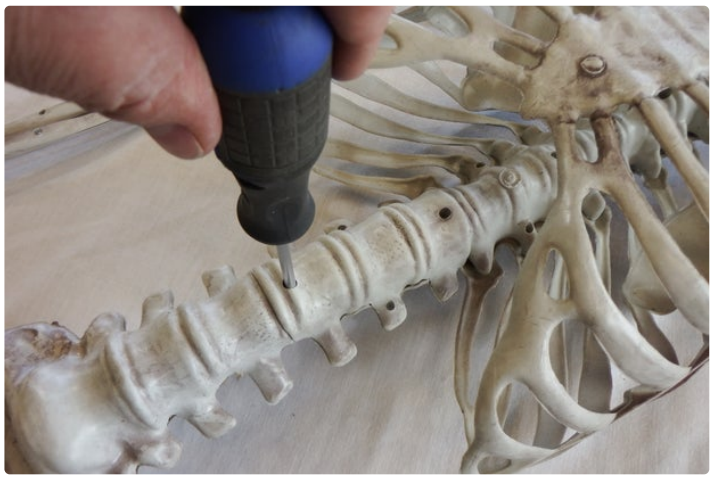
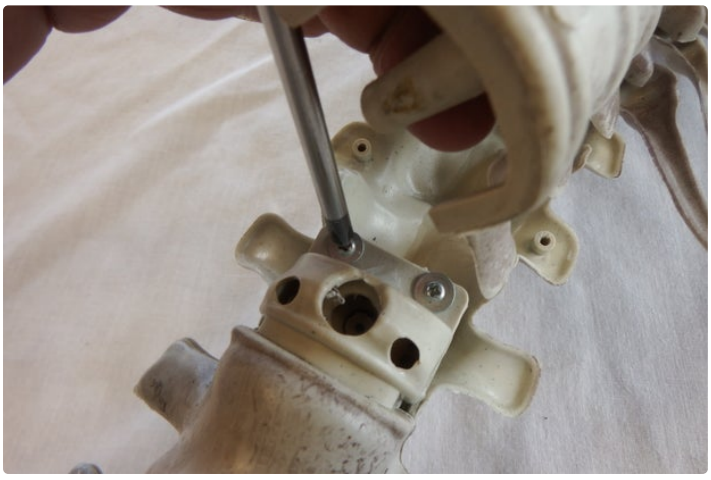
As nice as their ability to hold a pose is, they simply can not stand up on their own. The best way to get them to be self-standing is with a 1/2" rebar ground stake. In order to do that, we will be installing a **Spine Insert** from Dr. Frybrain.

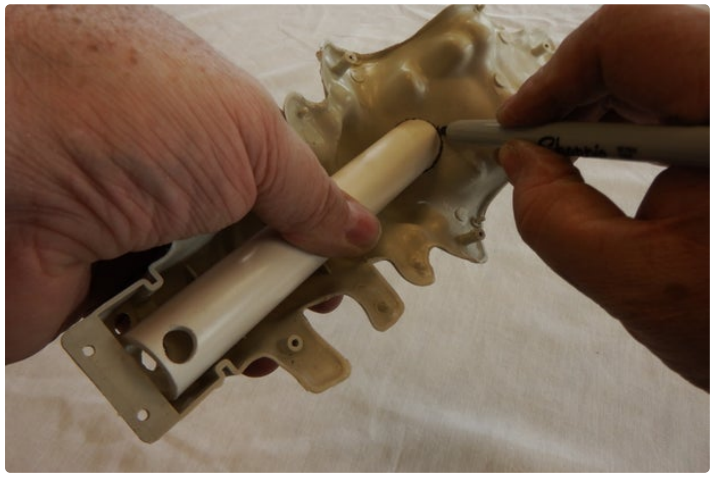
1. Remove the pelvis by removing the four screws (two on either side) that hold it to the spine. You can leave the legs attached.
2. Remove the four screws in the mid-spine.
3. Gently pry apart the mid-spine to remove the two screws holding the lower spine in place.
4. Place the **Spine Insert** inside the front half of the lower spine. With the hole in the insert aligned with the screw hole of the spine, and the beveled end mated to the bottom, mark the outline of the insert on the spine.

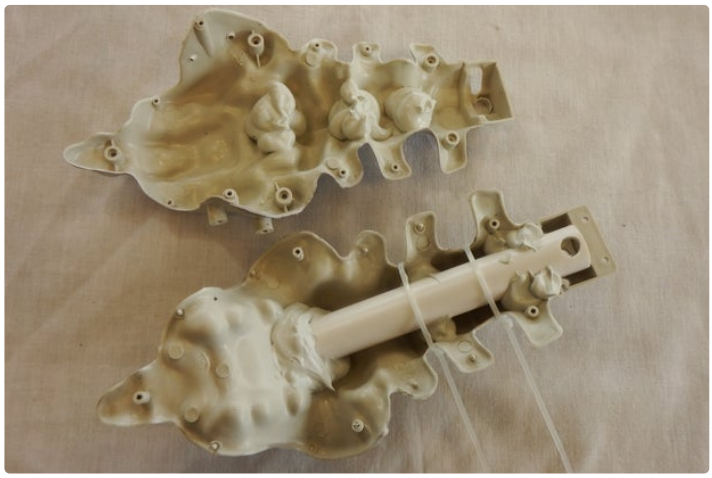
5. Using a drill, knife or file, create a 1/2" diameter opening in the center of the mark.
6. With the insert in place, apply generous amounts of construction adhesive to the spine and insert. Use tape or zip ties to temporarily hold the insert in place.
7. Join the two halves of the lower spine together, and re-install all of its screws. The center of the insert should line up with the hole you drilled.
8. Re-assemble the spine sections and the pelvis.
9. The zip ties or tape can now be removed.

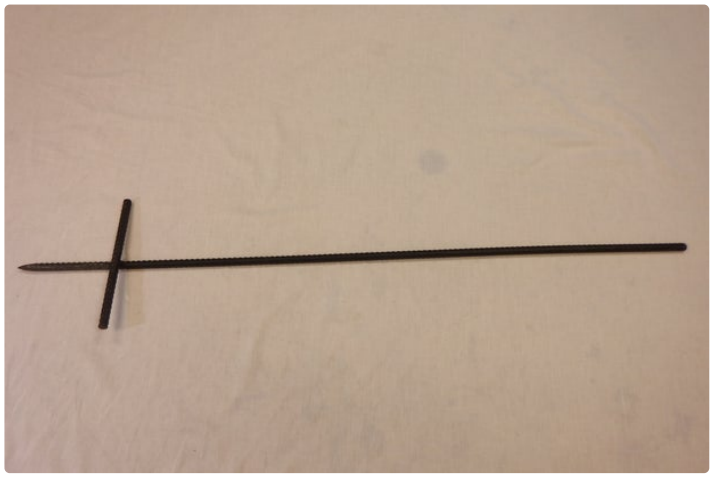
Make a ground stake from 1/2" diameter steel rebar. This is easily driven into the ground and is robust enough to keep your skeleton in place and upright in the wind. The length can vary, but the amount of the stake above ground should be 37-1/2". This will give you the maximum amount of support. The amount below ground should be at least 6". In the example shown, a small length of rebar is welded 6" from the bottom, so it can be used to drive the stake into the ground by stepping on it. It also sets the perfect height.

Place the stake in the ground, and slide the skeleton onto it, ala Vlad the Impaler style.





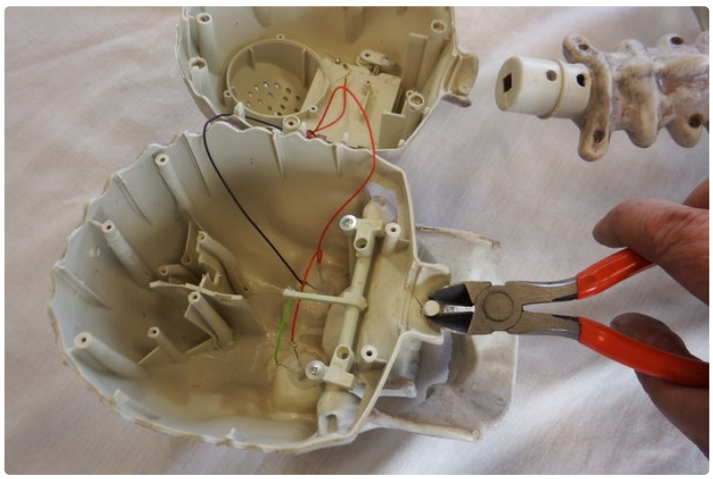
Step 2: A Real Head Turner

The skull and neck are designed to hold the skull looking straight ahead, and can not be turned at all. But it is possible to hack it to allow you to position the skull any way you wish.

1. Remove all of the screws holding the two haves of the skull together and separate them.

2. Take this opportunity to get rid of the black cord sticking out the top if the head, if desired.
3. Clip and remove the two studs on the front and back skull halves. You may also use a soldering gun or wood burner to smooth these areas.
4. Re-assemble the skull and because there are no screws in this area, fasten a zip tie around the base of the skull to keep the two sections together, and pull as tight as possible.

The head is now free to turn 360°.



Step 3: To the Rack

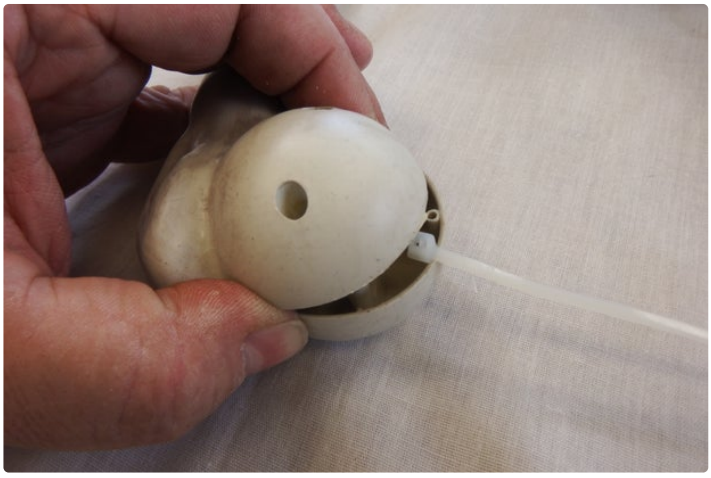
The arms on these skeletons are held to the shoulder with a ball and socket joint, but the geometry only allows for the arms to swing forward and back, and not to the side at all. In medievel times, the Rack was used to dislocate victims limbs as a form of torture. We are going to dislocate our skeleton's arms to give us more range of motion!

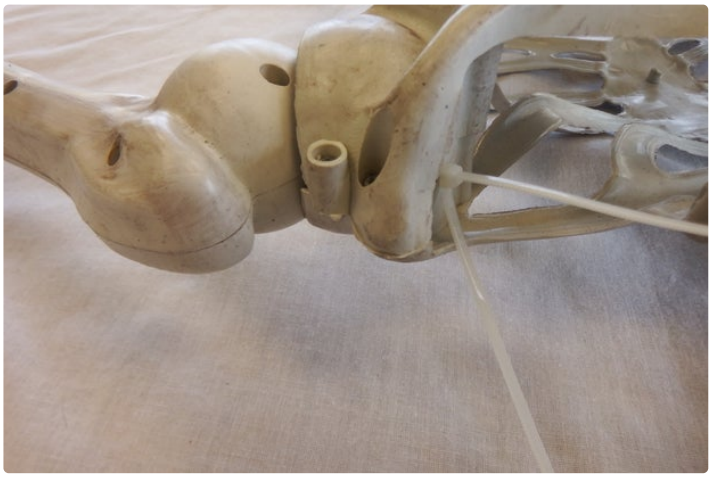
1. Loosen or remove the screws around the arm socket joint and pull the arm out.
2. Loosen or remove the screws holding the two halves of the arm together.
3. Place the locking head of a zip tie inside the ball, and screw the two halves back together, trapping the zip tie inside.
4. Pass the end of the zip tie through the opening between the two halves of the shoulder socket.
5. Slide the locking head of a **second** zip tie on the end of the first zip tie.
6. Carefully adjust the position until the ball is touching the edges of the socket, but not so tight that it

does not freely move.

7. Clip the ends of both zip ties.

The arm will no longer be able to hold position on its own, but it is now free to move in all directions. If you want to re-insert the ball into the socket, simply loosen the screws and pop the joint back in place. You can leave the zip ties in place so that you can again free up the movement in the future if you wish.



Step 4: Hand Twisting Illusion

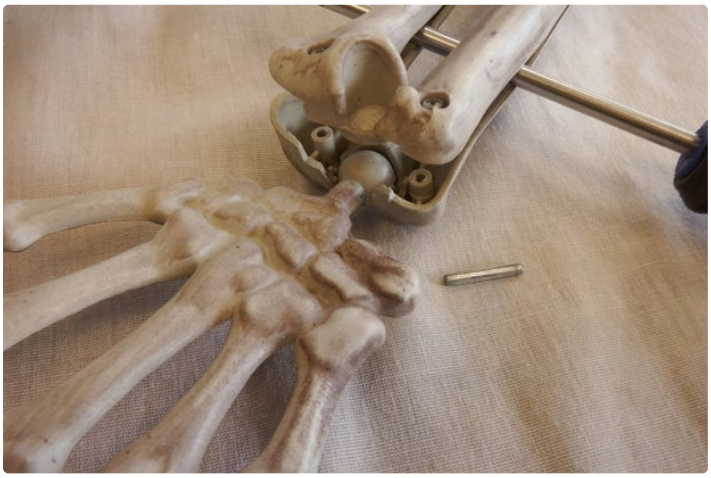
Magician David Copperfield may have performed his Hand Twisting as an illusion, but if you look at the hands of

these skeletons, you will see that are **actually installed backwards**. (Probably to make the smallest package size possible for shipping). You will also notice that even though the wrist has a ball and socket joint, the range of motion is limited to only one direction, but we can fix that.

1. Loosen or remove the screws on the lower arm, near the wrist.
2. Remove the hand.
3. Remove and **discard** the pin inserted through the ball of the joint.
4. Reassemble the hand and tighten all the screws.

The hand is now free to move an all directions, and can be twisted into a more natural position.





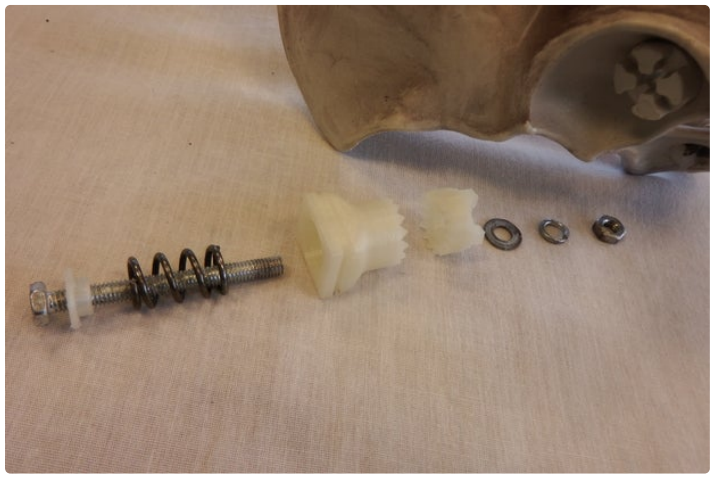

Step 5: Hip Replacement Surgery

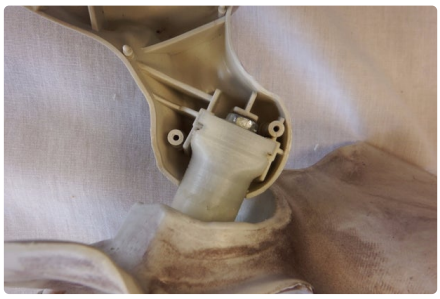
The plastic used for the bones is very pliable, but the plastic used for the joint mechanisms is thin and brittle. This results in joints that are easily broken. You can replace a broken hip joint with a **Hip Joint** from Dr. Frybrain.

1. Disassemble the broken joint with a 10 mm wrench or pliers.
2. Discard ALL the plastic pieces, but keep the bolt, spring, washer, lock washer and nut.
3. Note the assembly order of the new parts and re-used hardware as shown in the photo.
4. Tighten the bolt and nut so that the flanged bushing is flush with the surface of the toothed stud.
5. If the leg is not already in two pieces, remove the screws holding the two halves together.

6. Position one half of the leg so the the toothed stud of the hip joint fits in the leg cavity.
7. Match up other half of the leg and fasten together with its screws.

Your hip replacement surgery is now complete!



Step 6: Knee Replacement Surgery

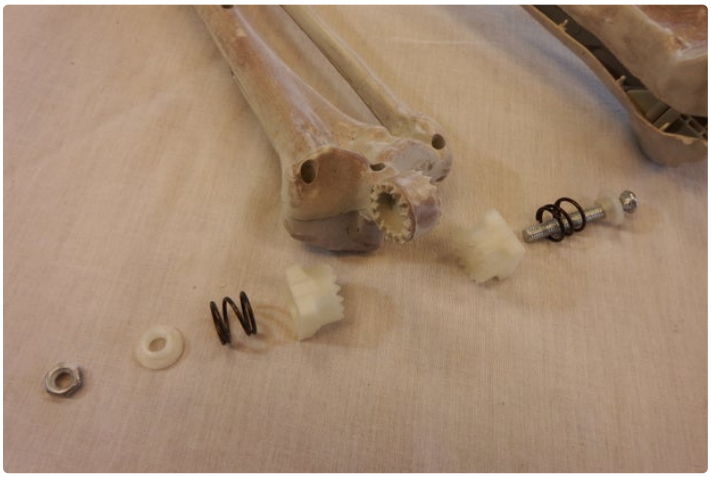
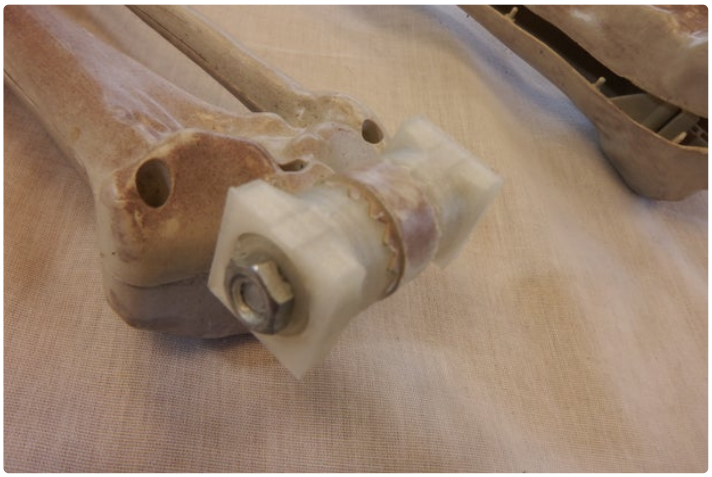
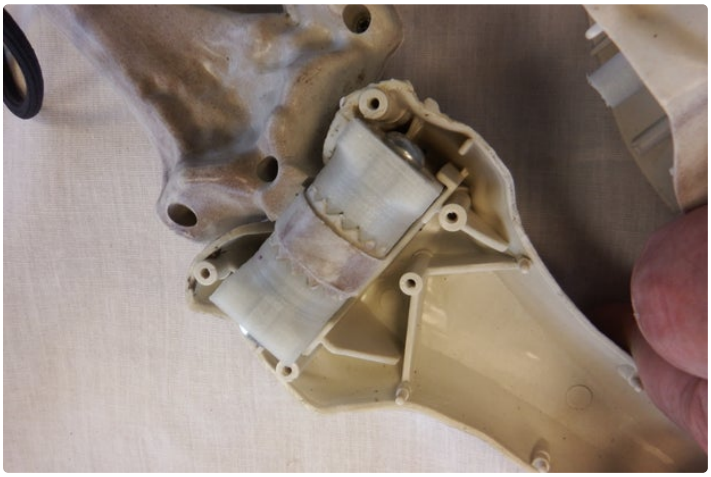
The plastic used for the bones is very pliable, but the plastic used for the joint mechanisms is thin and brittle. This results in joints that are easily broken. You can replace a broken knee joint with a **Knee Joint** from Dr. Frybrain.

1. Disassemble the broken joint with a Phillips screwdriver and a 10 mm wrench or pliers.
2. Discard ALL the plastic pieces, but keep the screw, springs and nut.
3. Note the assembly order of the new parts and re-used hardware as shown in the photo.
4. Tighten the screw and nut so that the flanged bushings are flush with the surfaces of the toothed studs.
5. If the leg is not already in two pieces, remove the screws holding the two halves together.Position

one half of the leg so the the toothed stud of the knee joint fits in the leg cavity.

6. Match up other half of the leg and fasten together with its screws.

Your knee replacement surgery is now complete!

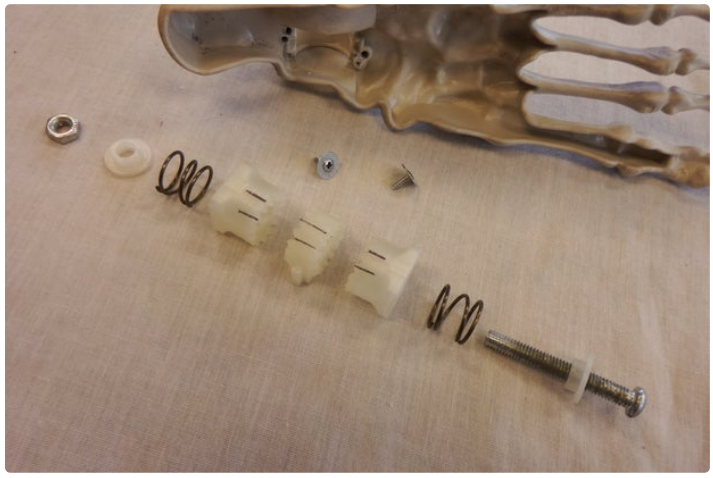





Step 7: Ankle Replacement Surgery

The plastic used for the bones is very pliable, but the plastic used for the joint mechanisms is thin and brittle. This results in joints that are easily broken. You can replace a broken ankle joint with an **Ankle Joint** from Dr. Frybrain.

1. Disassemble the broken joint with a Phillips screwdriver and a 10 mm wrench or pliers.
2. Discard ALL the plastic pieces, but keep the screw, springs and nut.
3. Note the assembly order of the new parts and re-used hardware as shown in the photo. For proper alignment, line up the marks provided.
4. Tighten the screw and nut so that the flanged bushings are flush with the surfaces of the toothed studs
5. Fasten the joint to the foot with the 2 flanged screws.
6. If the leg is not already in two pieces, remove the screws holding the two halves together.
7. Position one half of the leg so the the toothed stud of the ankle joint fits in the leg cavity.Match up other half of the leg and fasten together with its screws.

Your ankle replacement surgery is now complete!





Step 8: Hand Reattachment Surgery

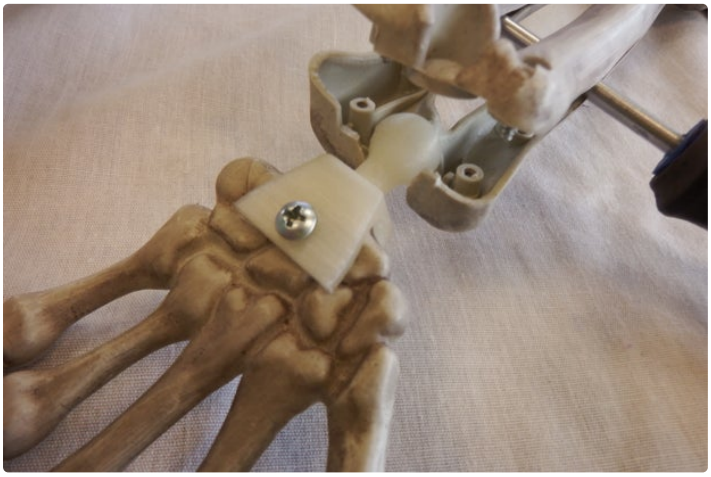
We have already looked at hacking the wrist joint to allow for better mobility, but what if the wrist ball joint broke off? You can replace the wrist joint with a **Wrist Joint** from Dr. Frybrain.

1. Place the replacement wrist joint over the end of the hand, with the thru hole on the palm side.
2. Drive in the included #6 x 1/2" thread forming screw.
3. If the arm is not already in two pieces, remove the screws holding the two halves together.

4. Place the wrist ball into the arm socket and fasten the two halves of the arm together with its screws

Your hand reattachment surgery is now complete!



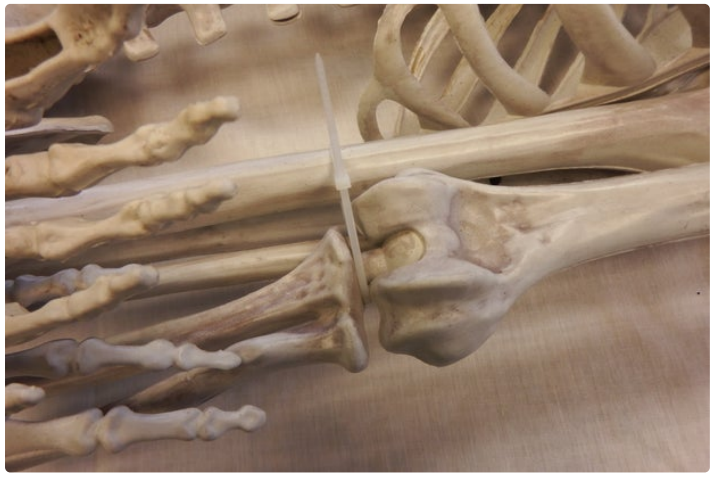



Step 9: Skeleton in Your Closet, Literally.

When your skeleton was shipped from the factory, it was folded up with its arms and legs bound together with zip ties. It is a good idea to store them the same way, to avoid the possibility of getting loose limbs snagged or multiple skeletons getting tangled together (and possibly breaking joints).

1. Point the toes up as far as they will go.
2. Fold the lower legs all the way back at the knees.
3. Fold the upper legs back at the hips.
4. Fasten the limbs together with zip ties.
5. Slide the skeleton into a large. plastic trash bag.
6. Create a loop in excess at the top and secure with a zip tie.
7. Hang your skeleton in a closet or any other convenient spot.


5' POSE-N-STAY
SKELETON
$29.98



Where do you buy the repair parts?

Just click on the links to all the parts in each step.