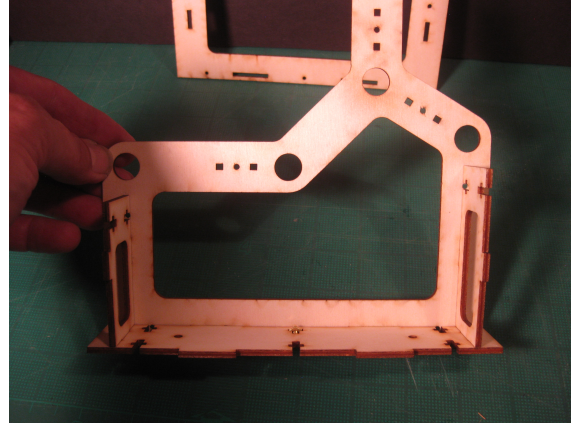


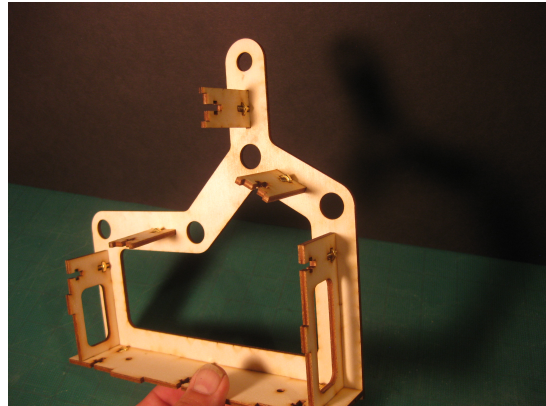
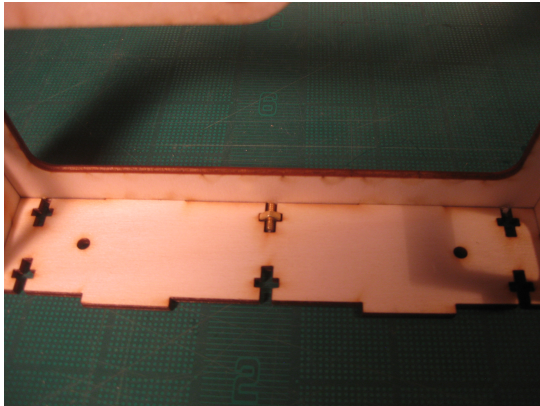
Assembly Instructions For Pegasus



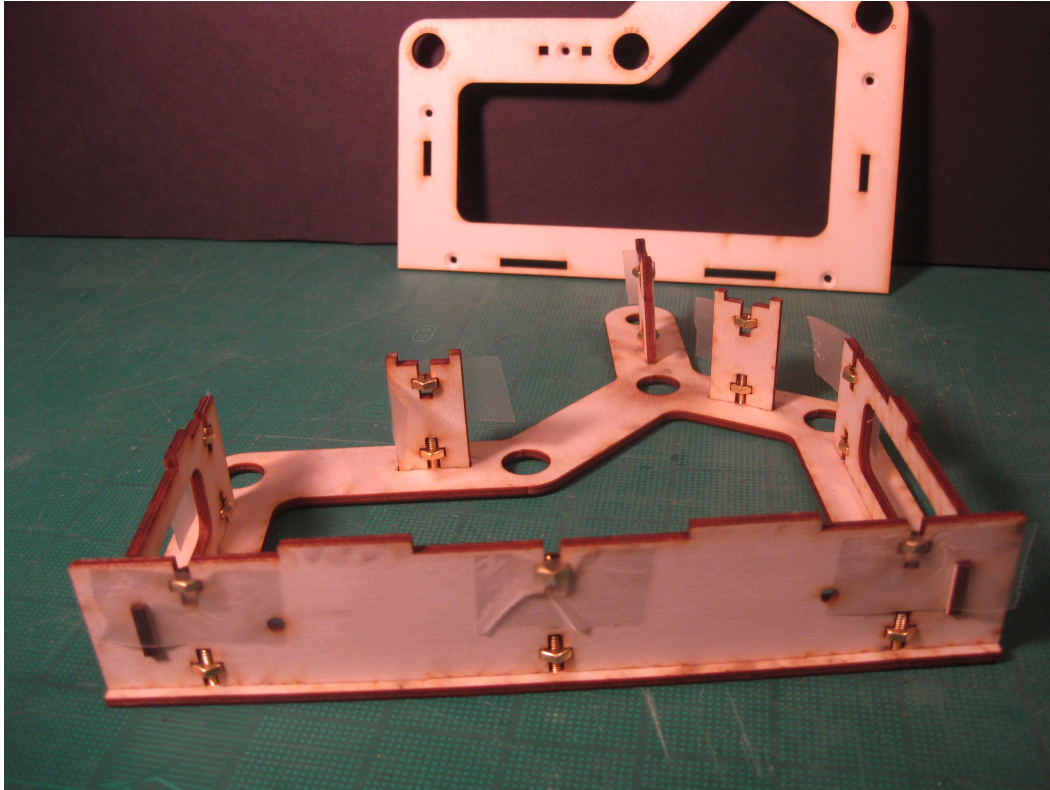
The completed kit shows the numbering scheme used on the shafts.



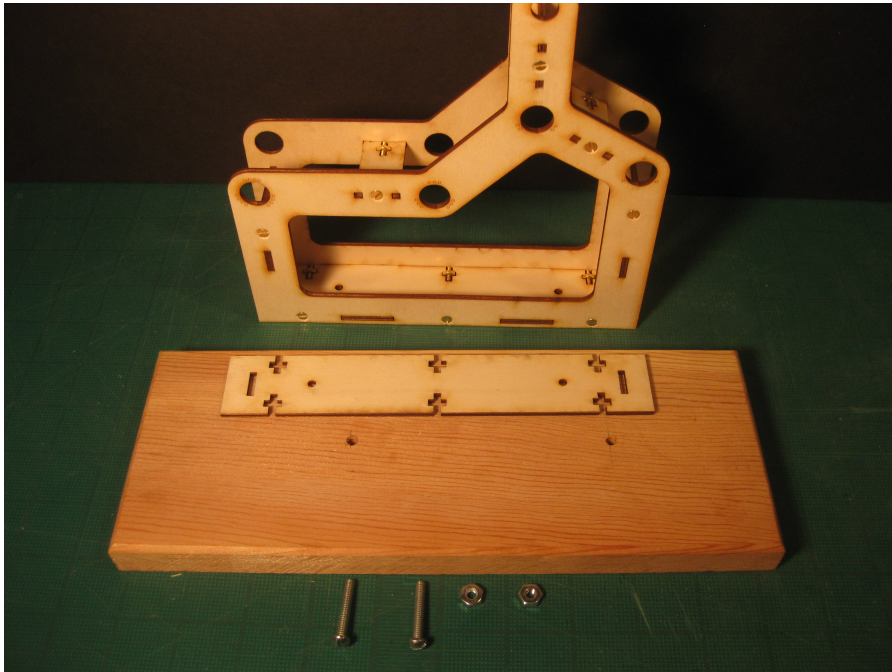
Gather the parts shown here on the left. Make sure the countersunk holes for the screws on the sidepieces are facing outward. Place the tabbed base and the two sides into position. Make sure all tabs are aligned.



Place the 4-40 brass nuts in the slots and screw in the 4-40 flat head screws. Keep the screws a little loose until they are all in place. Then tighten all of them. Next, place the three spacers in position as shown. These spacers are about 1.45" or 36 mm long.

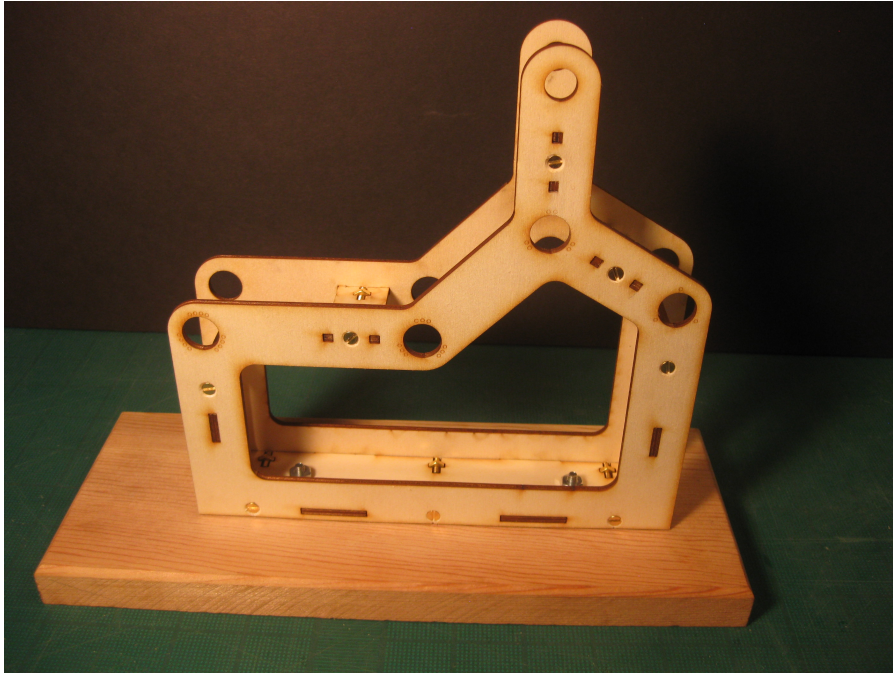


Place nuts in all the pockets and use tape to temporarily hold the nuts in place. Make sure the tape does not go above the edge of the wood, otherwise it will interfere with the fit of the remaining sidepiece. Place the other sidepiece on top and carefully align all tabs. Screw together the two sidepieces and then remove the tape.

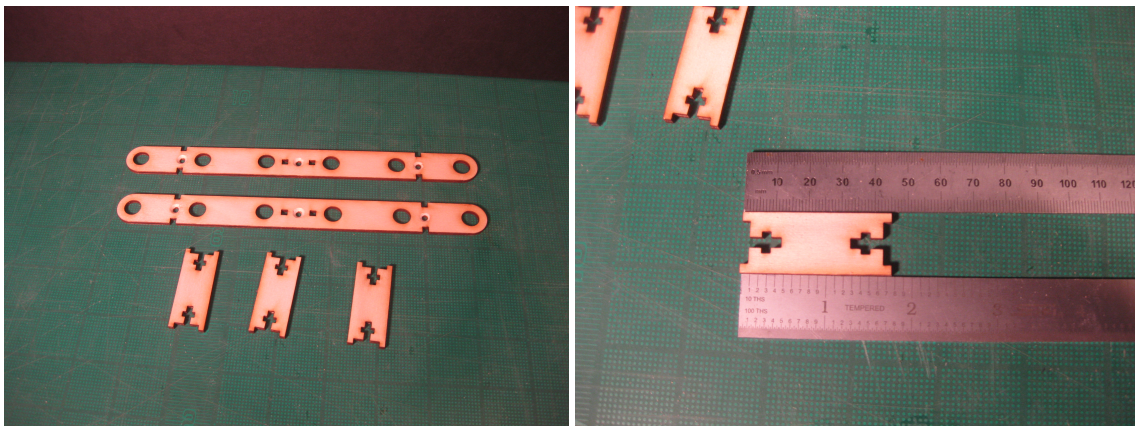


After assembling the two sidepieces, insert the bottom piece under the model and press it into place. Place the frame on top of the base, making sure it is oriented as

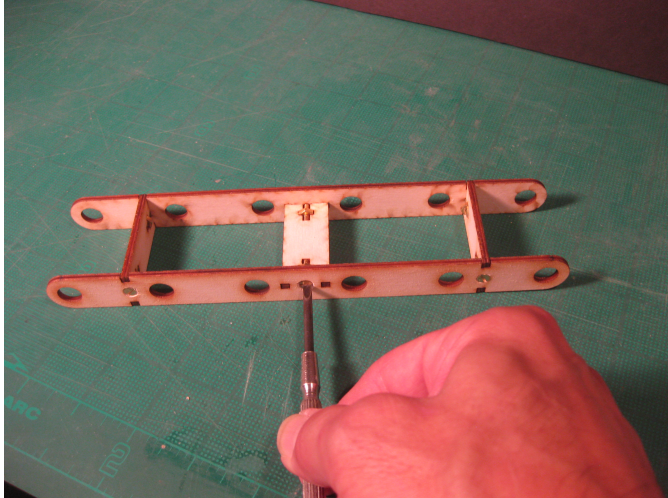
shown. Now take the two 8-32 screws and insert them into the base from the bottom, making sure the heads go into the counter bores and the holes in the base. Place the nuts on top and screw it down until snug.



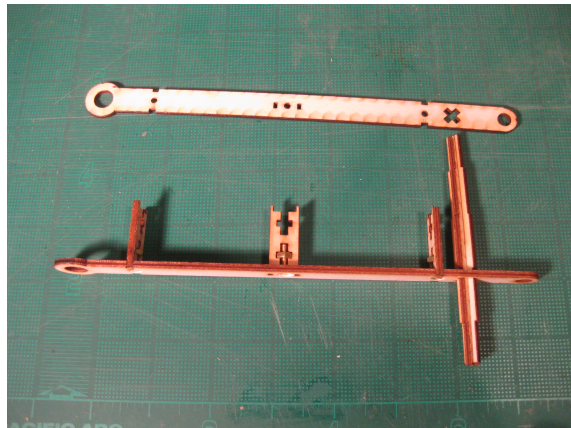
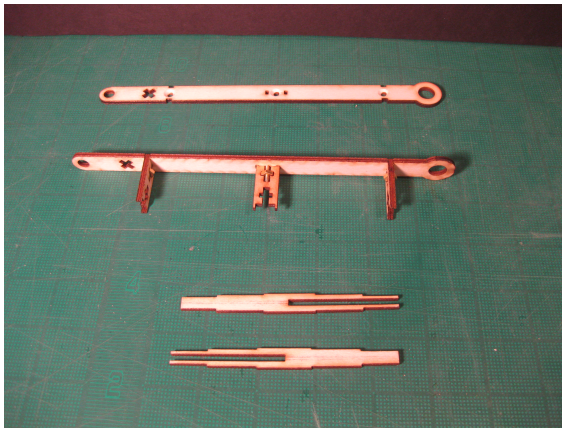
Frame fully attached to the base.



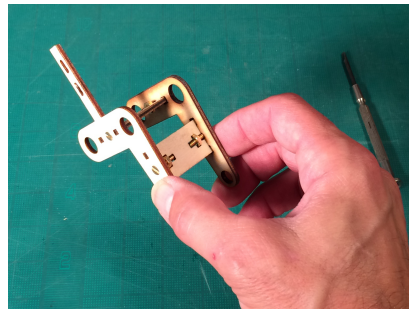
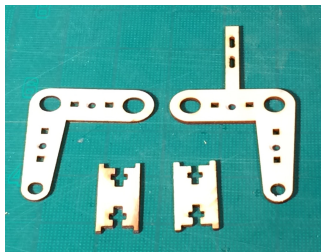
Using similar techniques, screw together the ladder. Note: the length of the spacers should be about 1.75" or 45 mm.



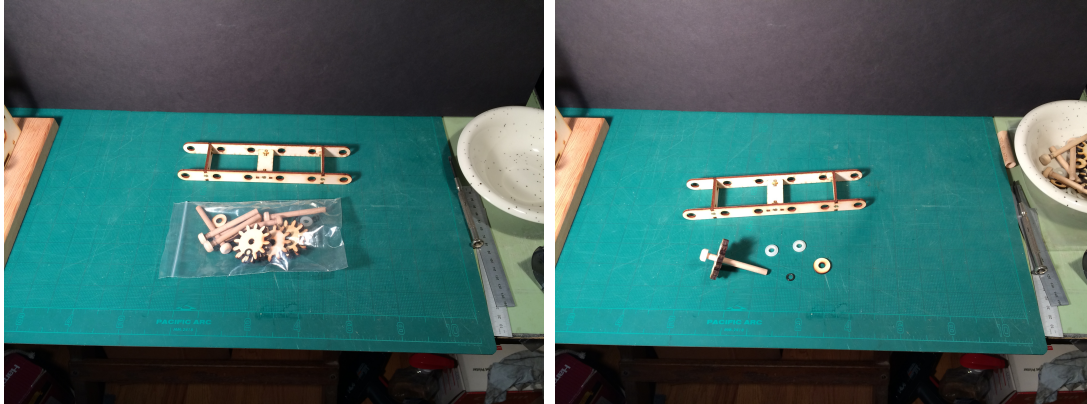
Keep all the screws a little loose until you place the ladder on a flat table to ensure that the ladder is very flat. Now, tighten up all the screws.



Assemble the “lower link”. First put in the three spacers. Then slide the two other pieces into each other and then through the cross-shaped hole in the lower link side. Then screw the other side piece on. Keep everything nice and flat during final assembly.



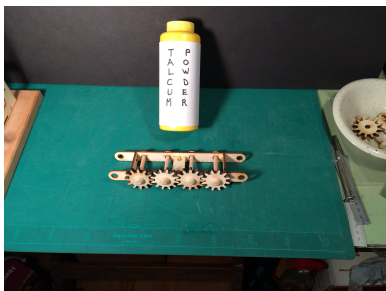
Now assemble the “Pegasus stand.” Make sure to use the table when tightening the screws to ensure flatness.



Start placing the gears into the ladder by locating the bag shown here. Insert one of the shafts through the gear's hole. Insert a flanged nylon washer into the ladder's hole (second from the right), followed by another flanged nylon washer on the other side, followed by a wooden washer and then an o-ring. Use the insertion tool to fully seat the o-ring



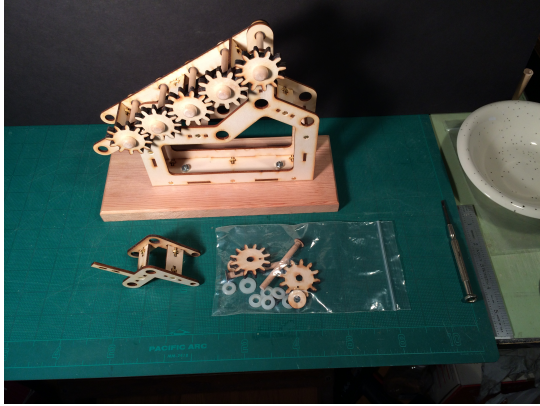
WARNING: When using the flanged nylon washers always make sure they are fully seated up against the frame.



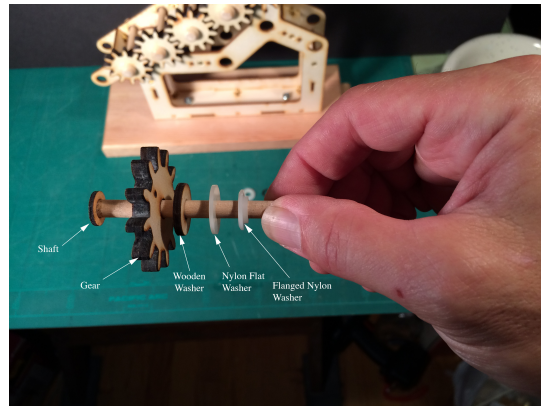
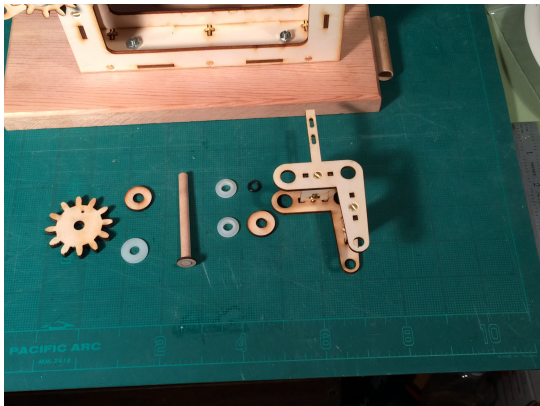
Insert all four gears shown here. Now dust the ladder with a healthy coating of Talcum Powder. Best done over the bathtub. Rotate the gears around and then blow off most of the powder.



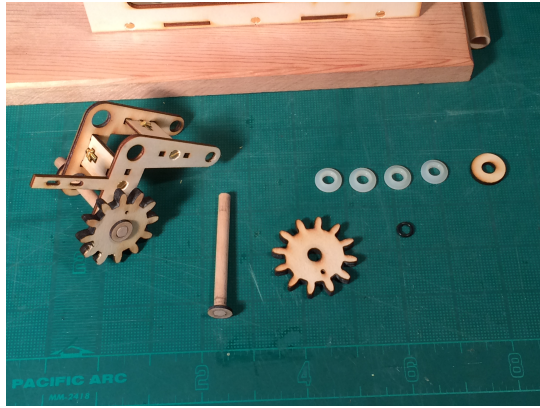
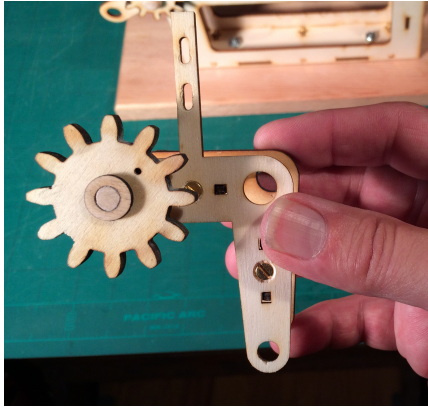
Attach the ladder to the frame by first inserting flanged nylon washers on both sides of the frame and then sliding the ladder into position. Then insert a gear through the hole using the same methods previously used.



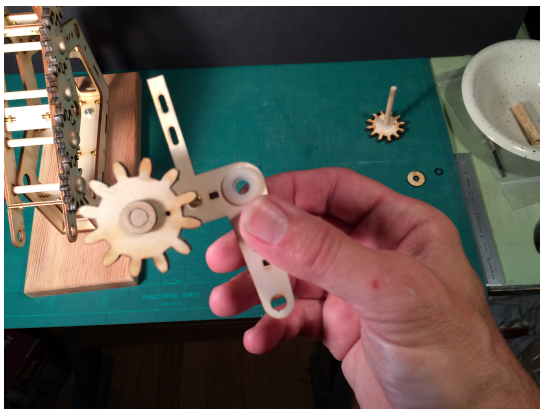
Attaching the Pegasus Stand to the ladder: First locate the bag shown here. Find one of the 2-56 brass screws in the bag containing the Pegasus figure and pre-screw it into the two gears that have the small holes in them. Note one hole is behind a gear tooth and the other is in between two teeth. Once you have pre-screwed in the screw put it back in the bag it came from.



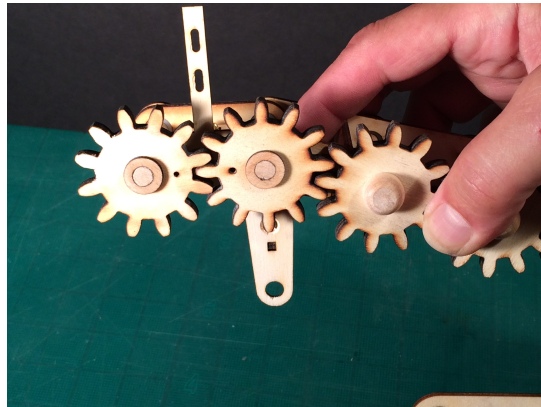
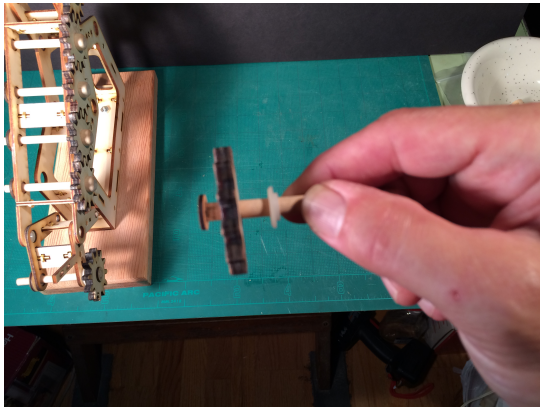
Insert the shaft with the flat end cap through one of the gears. On the other side of the gear, place in this order, a wooden washer, a flat nylon washer and then the flanged nylon washer as shown. Insert this assembly into the hole on the left side of the Pegasus Stand as shown. On the other side of the model, place a flanged nylon washer, a wooden washer, and then the o-ring. Use the insertion tool to sock down the o-ring.



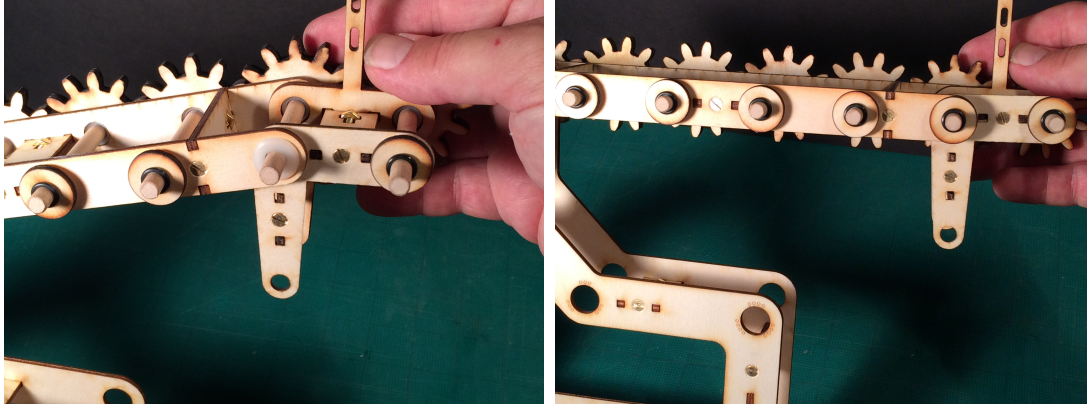
After placing the shaft on the left side into position, gather the parts shown here.



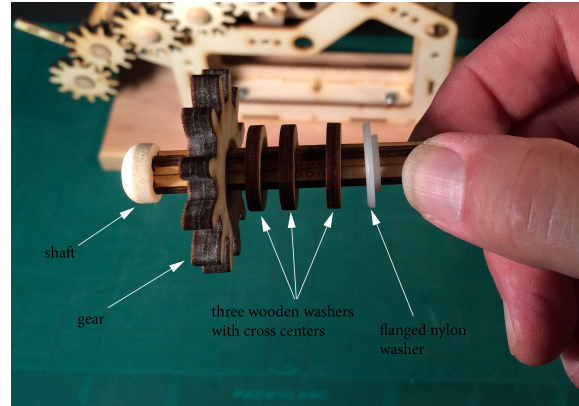
Insert flanged nylon washers on both sides of the Pegasus Stand, and then insert it into the ladder as shown.



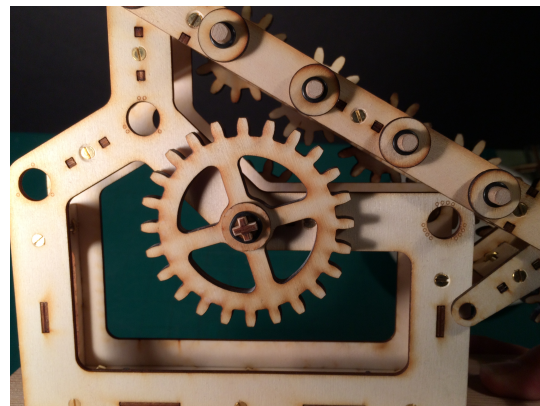
Slide the shaft through the gear and place a flanged nylon washer behind the gear with the flange facing outward. Now slide the shaft into the hole, going through both the ladder and the Pegasus Stand. **Make sure the gear meshes with the two gears on either side AND that the little hole is exactly opposite the other gear's little hole.** On the other side of the model, place another flanged nylon washer onto the shaft followed by a wooden washer and the o-ring.



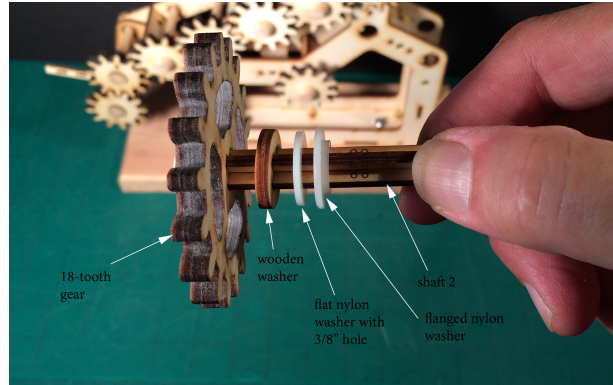
View from the backside of the model. **Note: there should be flanged nylon washers on both sides of all the shafts and wooden washers should follow along with o-rings.**



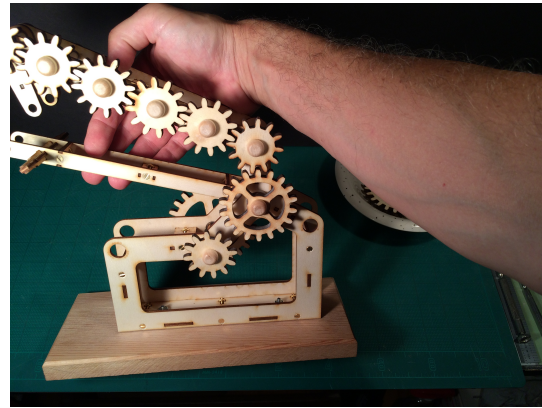
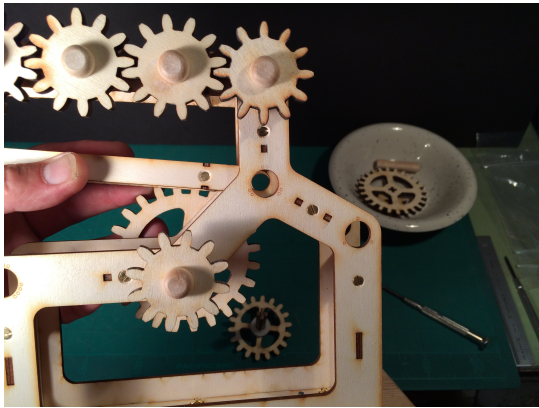
Find the bag containing the parts for shaft 3 (look of three symbols on the shaft). Slide the shaft through the 12 tooth gear and place behind it; three wooden washers with the cross in the centers followed by a flanged nylon washer (this is the larger flanged washer with a 3/8" hole in the middle).



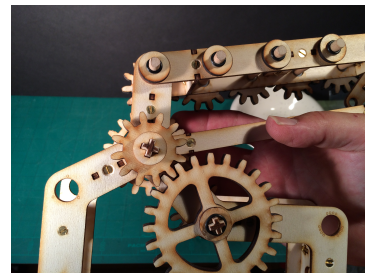
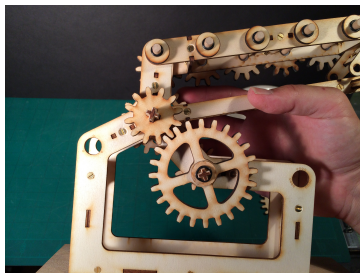
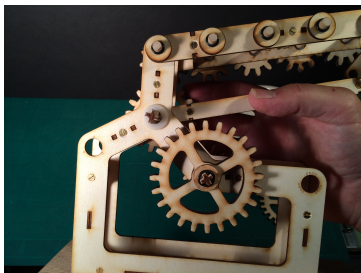
Insert shaft 3 into the hole that indicates shaft 3. Rotate the model to the other side and place another flanged nylon washer on the shaft followed by the 24 tooth gear, a wooden washer, and then the o-ring (note this o-ring is for 3/8" shafts).



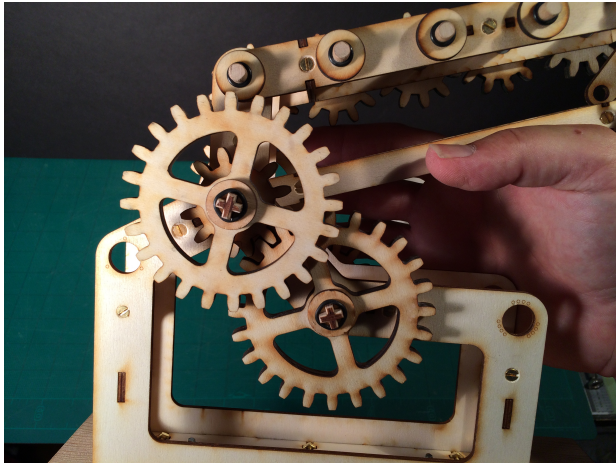
Gather the parts for Shaft 2 (again there will be 2 symbols on the shaft). Also gather the lower link you built earlier. Slide shaft 2 through the 18-tooth gear and place on the other side of the gear; a wooden washer with a cross center, a flat nylon washer with $3/8$ " hole in center, a flanged nylon washer.



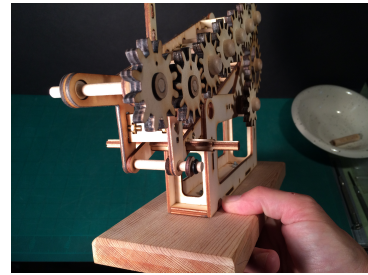
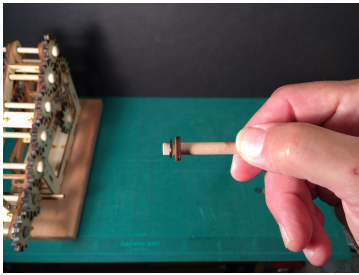
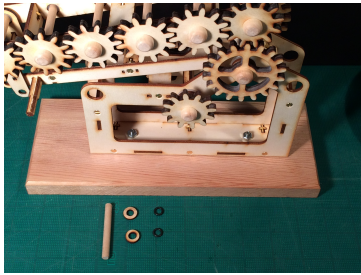
Slide the lower link through the frame and align the holes. Now slide shaft 2 through both the frame and the lower link. Make sure the 18-tooth gear meshes with the 12-tooth gear above it.



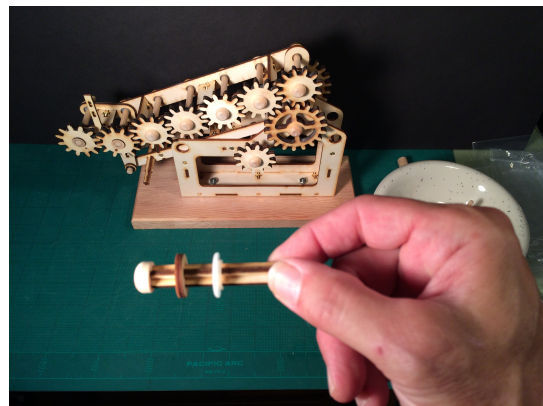
Turn the model around and slide a flanged nylon washer in place. Followed by the 12-tooth gear (make sure it meshes with the 24-tooth gear below), followed by a wooden washer. Complete the shaft assembly by sliding on the 24-tooth gear,



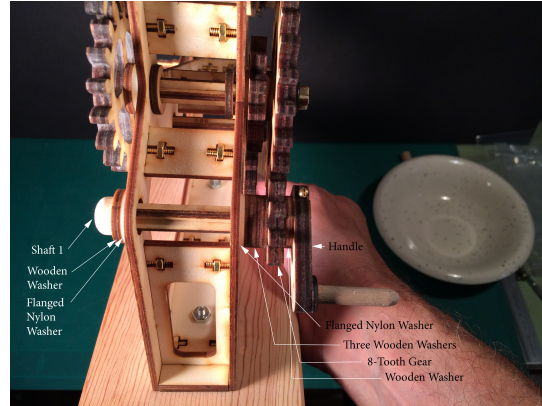
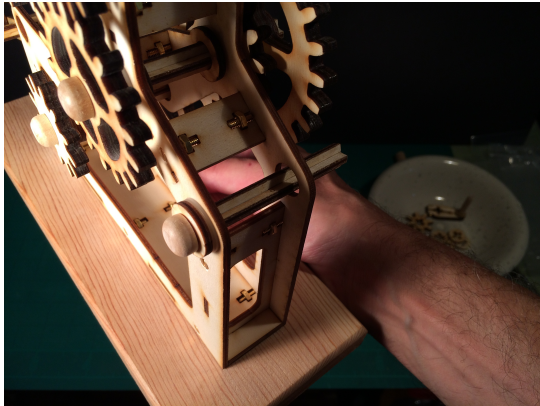
a wooden washer, and the o-ring.



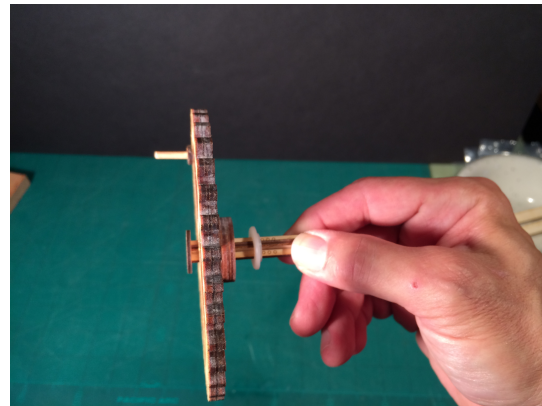
Connect the lower link to the bottom of the Pegasus Stand: Take the $\frac{1}{4}$ " dowel and place a washer ($\frac{1}{2}$ " OD $\frac{1}{4}$ " ID) on to the end of dowel. Roll an o-ring just onto the end of the dowel. Align the lower link with the bottom of the Pegasus Stand and slide the dowel through. On the other side, slide on the other washer and roll an o-ring onto the end. Keep everything here nice and loose, no need to use the insertion tool.



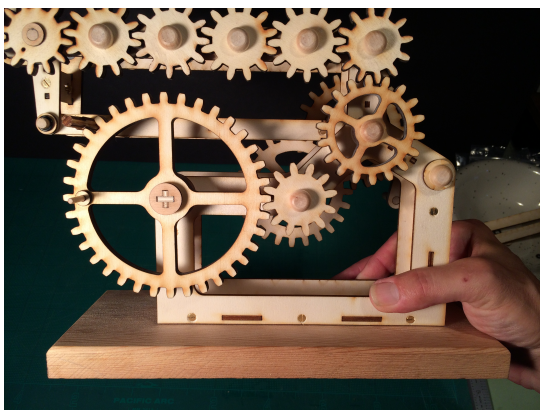
Locate the bag containing shaft 1. Slide on a wooden washer and a flanged nylon washer with the flange facing outward.



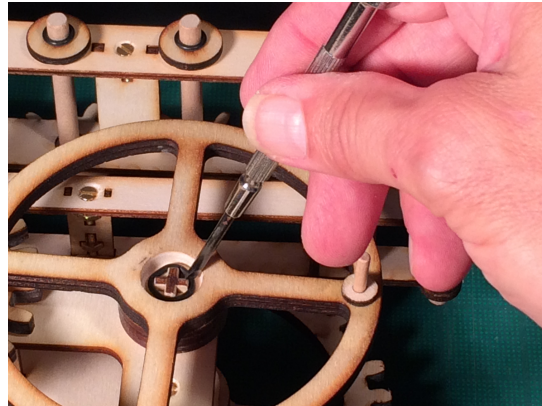
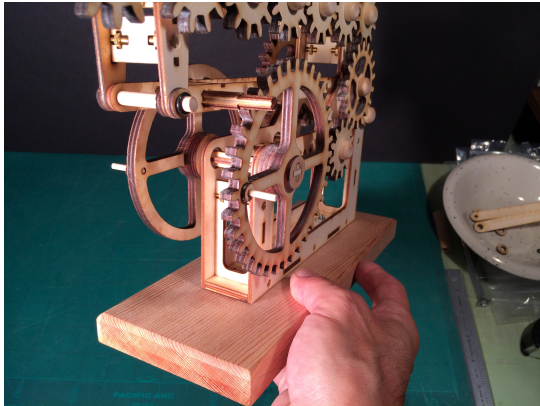
Slide shaft 1 into hole 1 and on the other side place a flanged nylon washer, followed by three wooden washers, followed by the 8-tooth gear, followed by another wooden washer, and then the handle. Apply a little pressure across the shaft with one hand and squeeze a bit not too hard but just enough to remove any slop. Then tighten the screw on the handle.



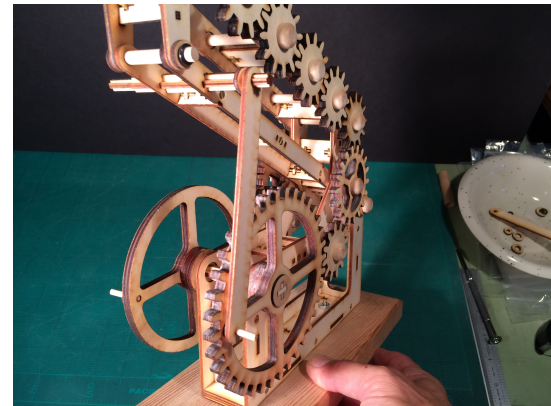
Attaching Shaft 4: Gather the parts shown to the left. Slide shaft 4 through the large 36-tooth gear. Make sure the pin on the gear is sticking out. Slide on a flanged nylon washer with the flange facing out.



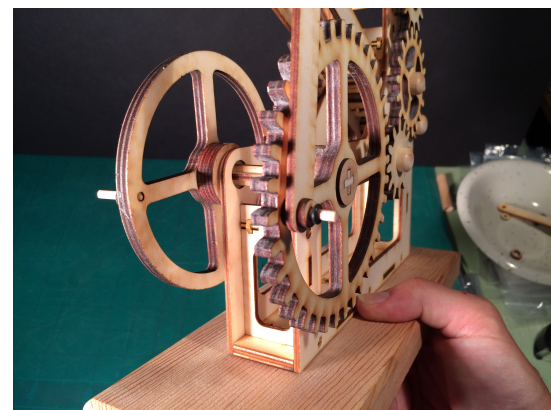
Slide shaft 4 through its hole. On the other side slide on another flanged nylon washer.



Slide the wheel on to the shaft making sure the pin on the wheel is aligned with the pin on the gear. Next you must put the o-ring around the shaft inside a pocket. This can be a challenge. You may want to rest the model on its side and, using a screwdriver, roll the o-ring around the shaft. Once on use the insertion tool to sock it down and give it a twisting motion.



Place a wooden washer (1/2" OD 1/4" ID) over the cross-shaft coming out of the lower link. Then slide the link on as shown (smaller hole in the link goes on the gear's pin).

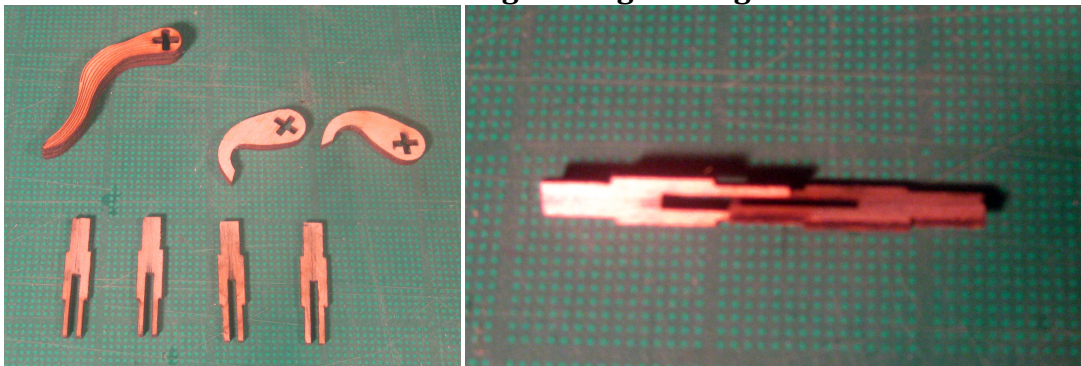


Finish by placing wooden washers over cross-shaft and gear pin followed by o-rings.

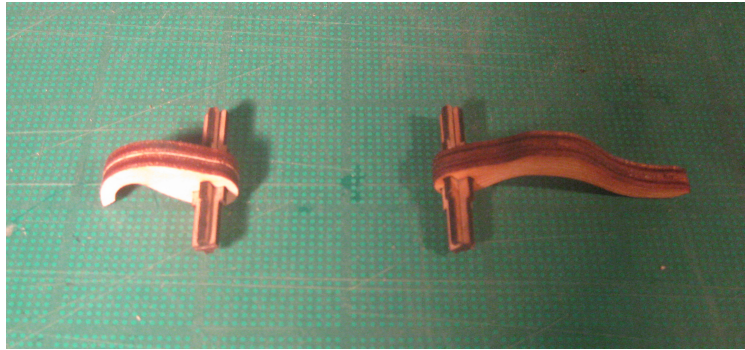


YAY!! Everything complete except for the Pegasus figure. Now is the time to take the model kit into the bathtub and sprinkle it generously with talcum powder. After a good dusting carefully start to crank the mechanism. DO NOT FORCE ANYTHING!! Gently rotate the handle clockwise and counterclockwise...making small angular movements. If necessary move your hands to various gears and help them a bit by rotating them. Eventually your mechanism will free up and start to move freely. There are a lot of gears here and this mechanism is similar to car transmission in that it needs to be worked in. So rotate the handle many times and get all kinks worked out of it. Feel free to use more talcum powder. It makes a huge difference.

Assembling the Pegasus Figure



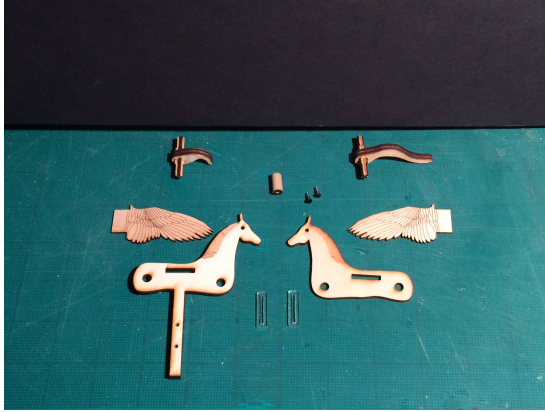
Gather these parts shown. The slotted parts slide into each other to form the axles for the front and hind legs. Slide each pair together as shown.



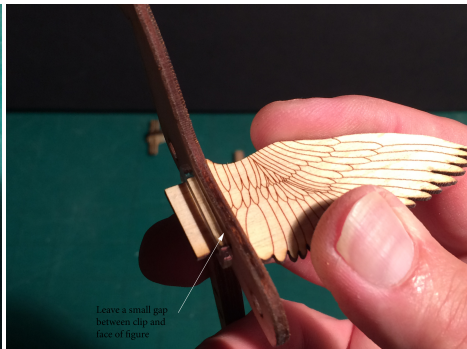
After completing the two axles slide the cams onto one axle and the tail onto the other axle. Center them on the middle portion of the axles.



The new version of Pegasus is shown on the left side. Construction is identical to the original figure. Just follow the same steps.



Gather the parts shown here. Pre-screw in a 2-56 screw into the two holes on extension part of the figure. Then remove the screw and put it back in the bowl.



Using one of the black screws, screw in the 0.5" wooden dowel. This screw doubles as the eye of Pegasus. Slide the right wing through the slot of the body and carefully slide the plastic clip over the wing tab inside the model. Work the clip with your fingers until it is almost against the face of the figure. Leave a small gap (about 1/32" or 0.75mm) between the clip and the inside face of the figure.



Push down on the wing tab and make sure the wing is able to move up and down freely. When you let the tab go the wing should come down on its own. If it doesn't, slide the clip ever so slightly away from the face of the figure.



Using the same method put the left wing into the other half of the figure. Now, taking the figure that has the extension on it, place the front axle with the cams, in the front hole, and the rear axle with the tail in the rear hole. Make sure the cam is positioned above the wing tab.



Place the other half of the figure so that the axles go through their respective holes. Screw in the black screw where the eye is located. Now bring out the leg pieces.



Once again, pre-screw a 2-56 screw into the two legs that have the small hole already near the bottom. Once done, remove the screw. Establishing these threads in the wood makes final assembly much easier.



Newer figure shown here



Original figure show here

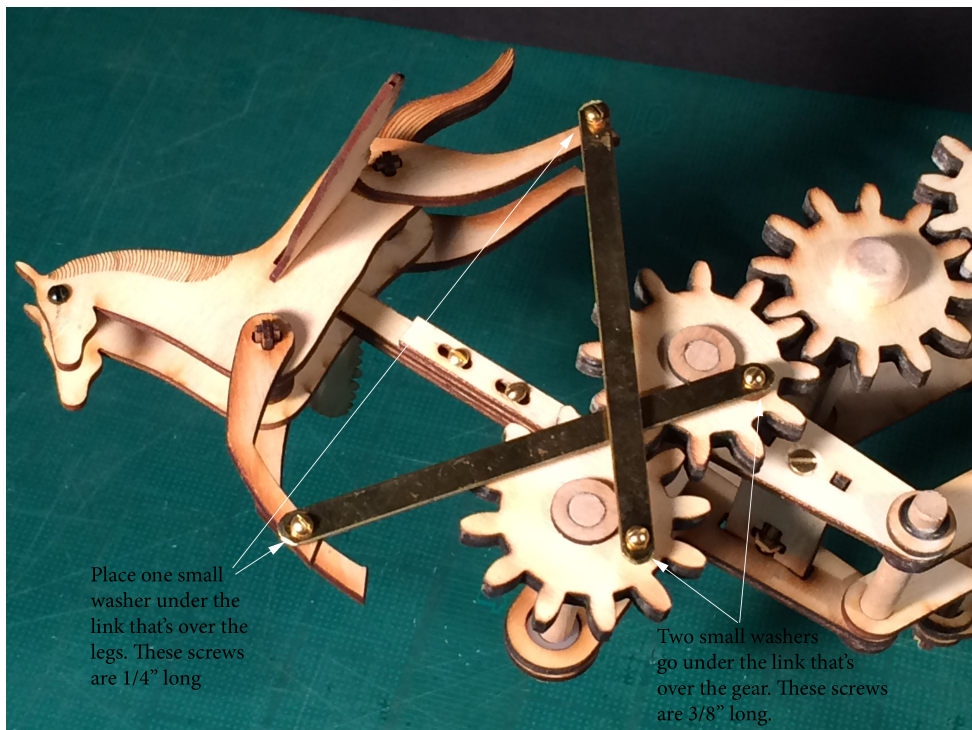
How to position the legs properly:

Push down on the cams in the front of the model until the wings go up. Now place the front leg with the hole in it in the position shown here. The leg should be extended as if Pegasus is in a gallop. Position the tail in the approximate position

shown here and slide the rear leg with the hole in it onto the figure. Holding the figure by the extension you can move the front legs back and forth and the wings should appear to flap.



Place the other two legs on the other side of the model in the positions shown in the left picture. Now, using the longer 2-56 brass screws ($3/8$ " long) mount the Pegasus figure to the Pegasus stand. The figure goes behind the slotted extension of the Pegasus Stand. For now, screw in the bottom screw but leave it a bit loose. Center the figure in the middle of the slot and tighten the upper screw just enough to hold the figure in place. We will make the final adjustment later.



For this step you might want to place the model down as shown. Be careful not to damage the wing on the backside. I like to place it over a bowl to give the wing clearance and so that the bowl can catch any parts that might fall during assembly.

Place two small washers under the links that go into the gears using the longer screws (3/8") and one small washer under the links that go over the legs (use the shorter screws (1/4"). DO NOT TIGHTEN THESE SCREWS DOWN! ALLOW THE HEADS OF THE SCREWS TO PROTRUDE A BIT. KEEP THINGS NICE AND LOOSE.



The Final Adjustment:

To make the final adjustment, and you may not need to do anything at all, rotate the model back and forth until you find the place where the legs of Pegasus are as far apart as they can go, as shown here. In this position the wings should be as high as possible. Loosen the upper screw that is holding the Pegasus figure to the stand and slide the figure down a bit. This should bring the wings up a little more. Now tighten both screws.

YOUR KIT IS NOW COMPLETE. TURN THE HANDLE AND WATCH THE MECHANISM IN ACTION. AS YOU CRANK, PEGASUS WILL MOVE UP AND DOWN, FLAP HIS WINGS, AND MOVE HIS TAIL. SEE THE 4-BAR MECHANISM KEEP PEGASUS HORIZONTAL AS HE FLIES THROUGH THE AIR. LOOK AT ALL THE GEARS ROTATE, FIGURE OUT ALL THE GEAR RATIOS AND ENJOY WHAT YOU HAVE CREATED.

DID YOU HAVE ANY PROBLEMS ASSEMBLING YOUR KIT? IF SO LET ME KNOW ABOUT IT. DID YOU BREAK ANY PARTS OR LOSE ANYTHING? LET ME KNOW.

EMAIL ME AT: bob@bibbysmodels.com