

# Press Ups – Rob Ives

 [robives.com/project/pressups/](http://robives.com/project/pressups/)



Cut the bamboo skewers provided to these lengths:

9 mm	20 mm	32 mm
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These are the parts for one arm ready for assembly. You'll need to make two arms as mirror images of each other.



The figure-of-eight link pieces need to be slightly thinner than the other parts so that the elbow moves easily. Sand them down by the thickness of a couple of sheets of paper.



Fit a pin into each of the holes as shown. They should be a tight fit.



Assemble the three parts of the upper arm and three parts of the lower arm around the joint. Make sure that the teeth mesh together and the elbow joint moves freely.



Fit the hand into place as shown. The wrist pin is glued at each end but free to move in the middle so that the hand can move. Fit the shoulder pin into place.



Repeat the process to make the second arm. Don't pin the shoulder yet.



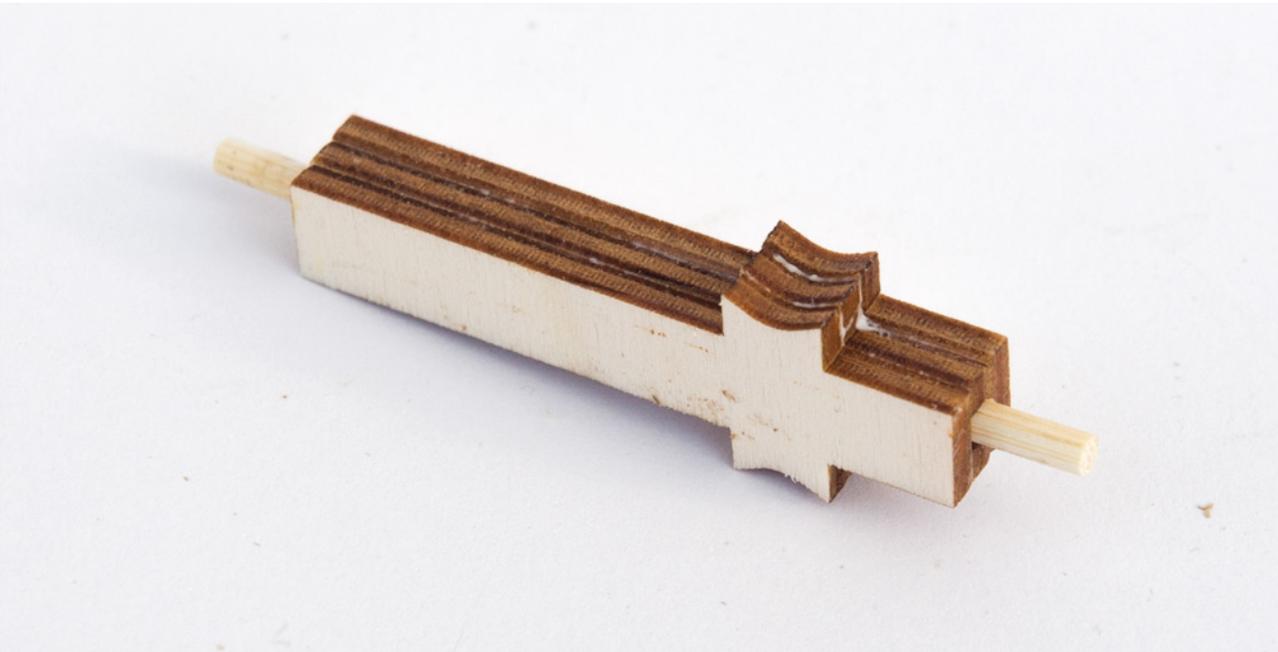
Glue together the four layers that make the body.



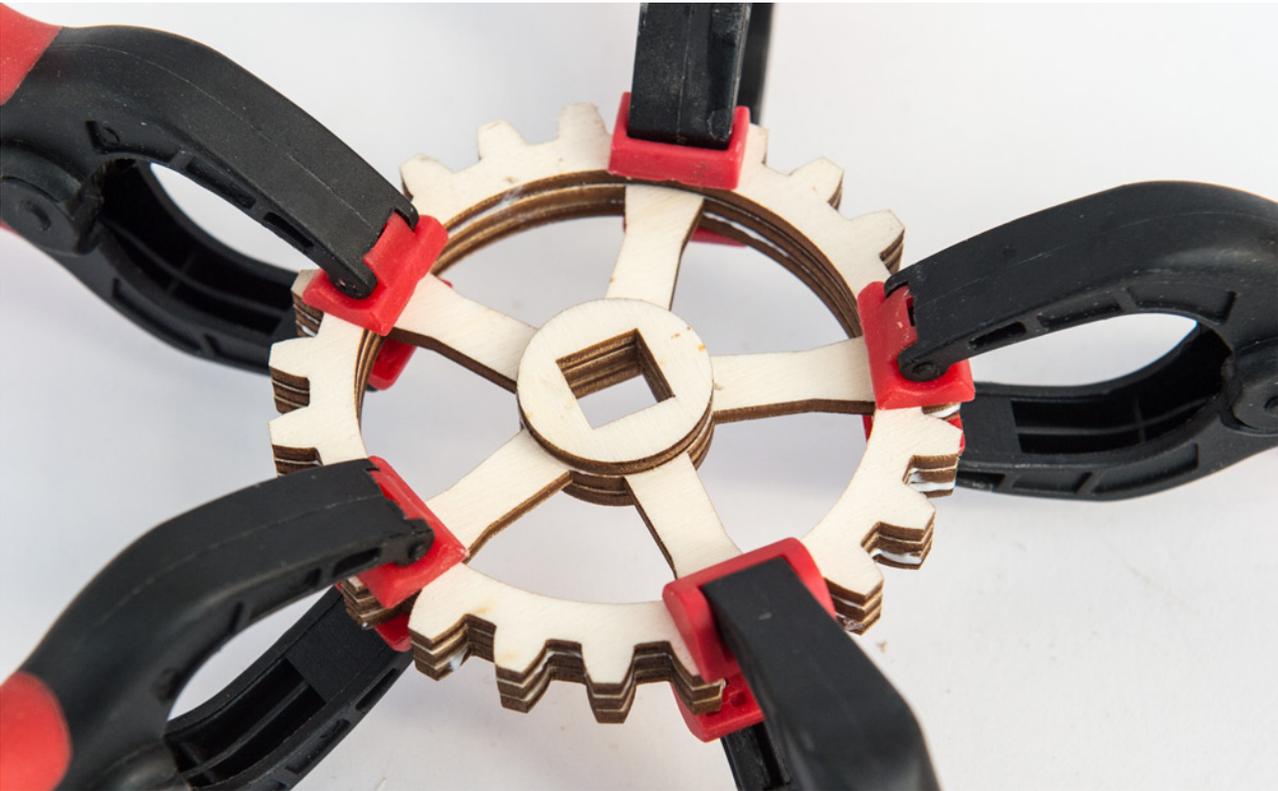
Fit the arms into place and thread a second 32mm pin through the feet holes.



Assemble the cam axle as shown. Glue the 9mm pins into the ends.

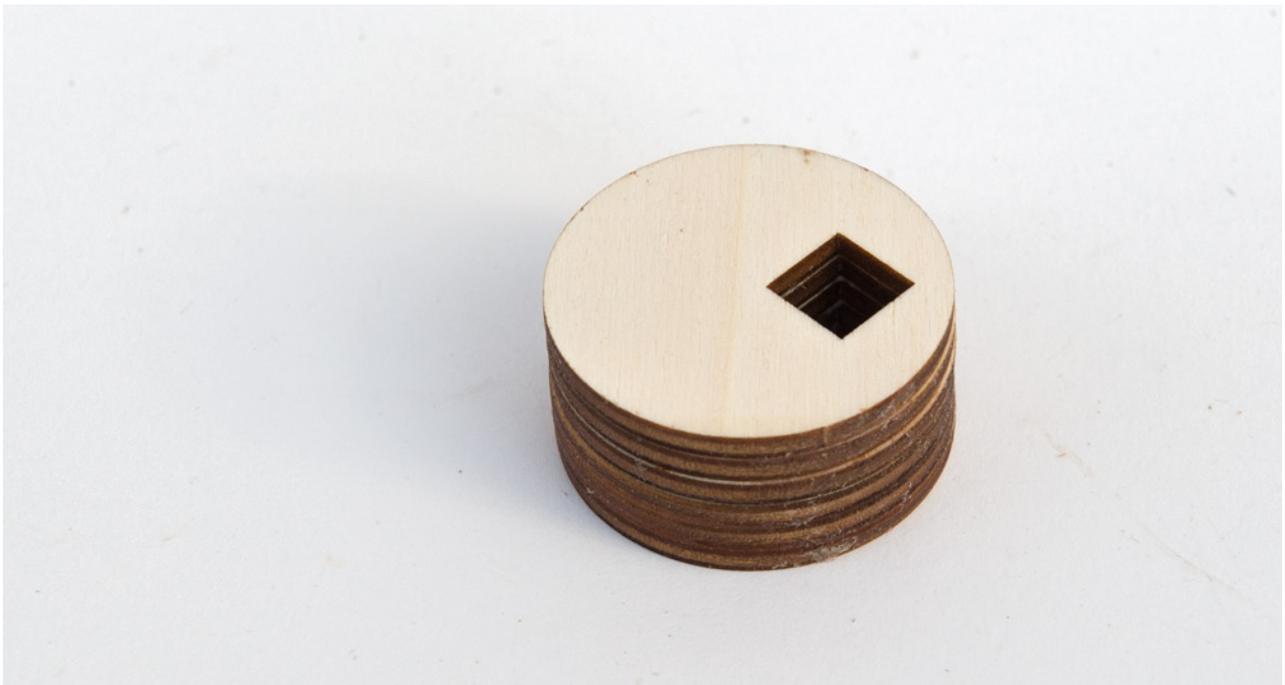


Glue together the five parts of the larger gear, lining up the teeth as accurately as possible.

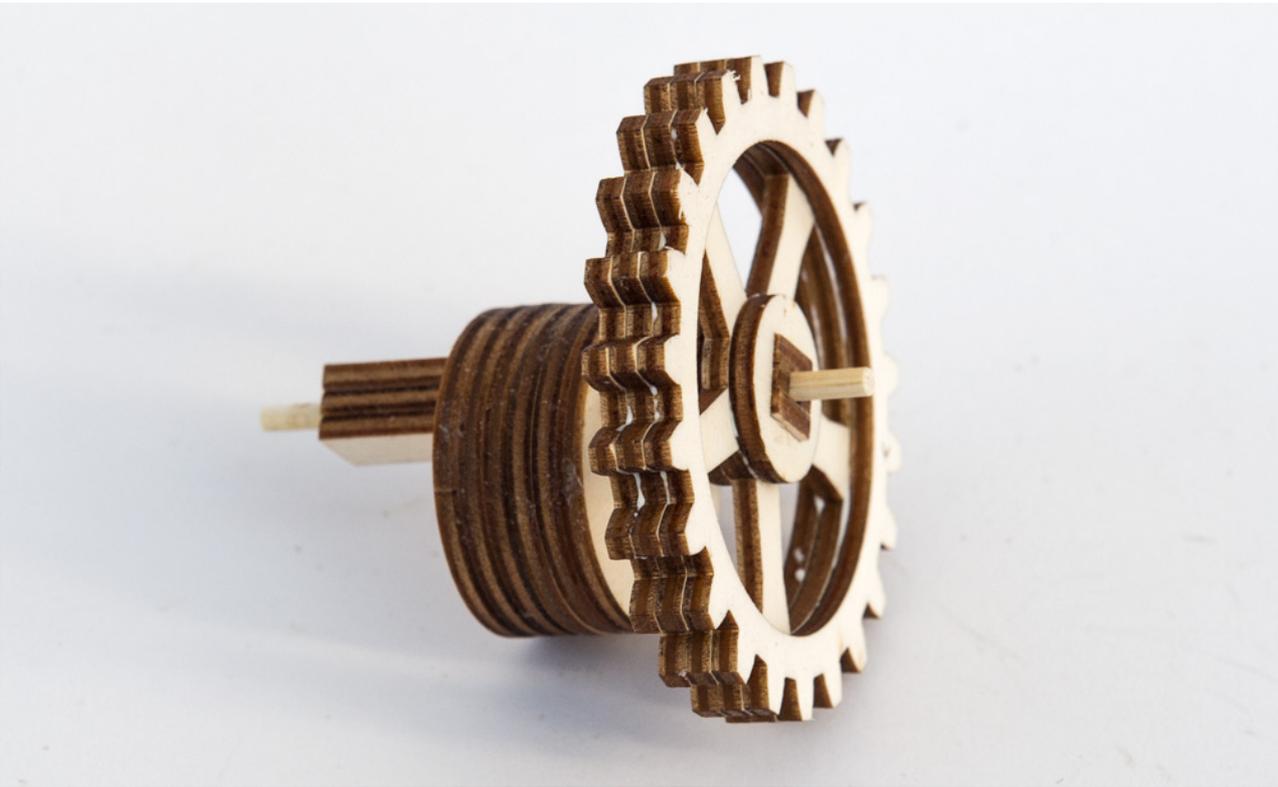




Glue together the six layers of the cam, make sure the hole is accurately lined up.



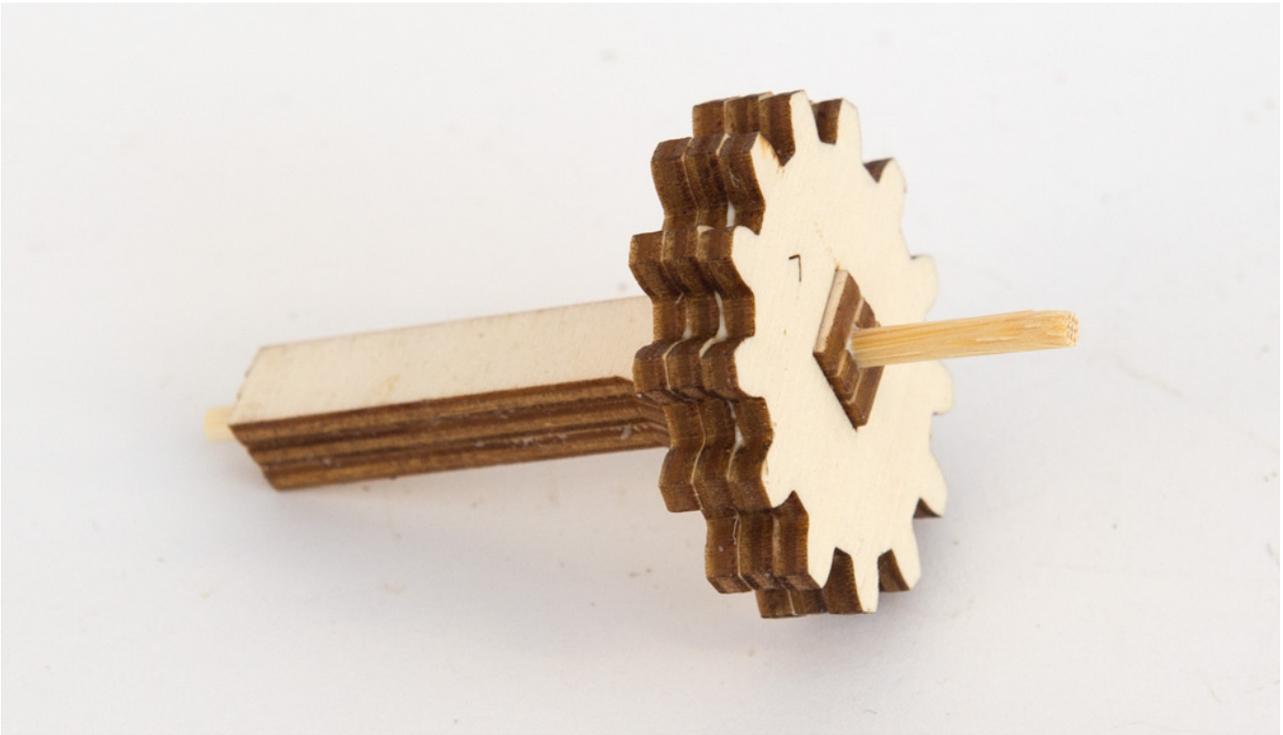
Glue together the axle, cam and gear.



Assemble the second axle, note the longer pin on the left.



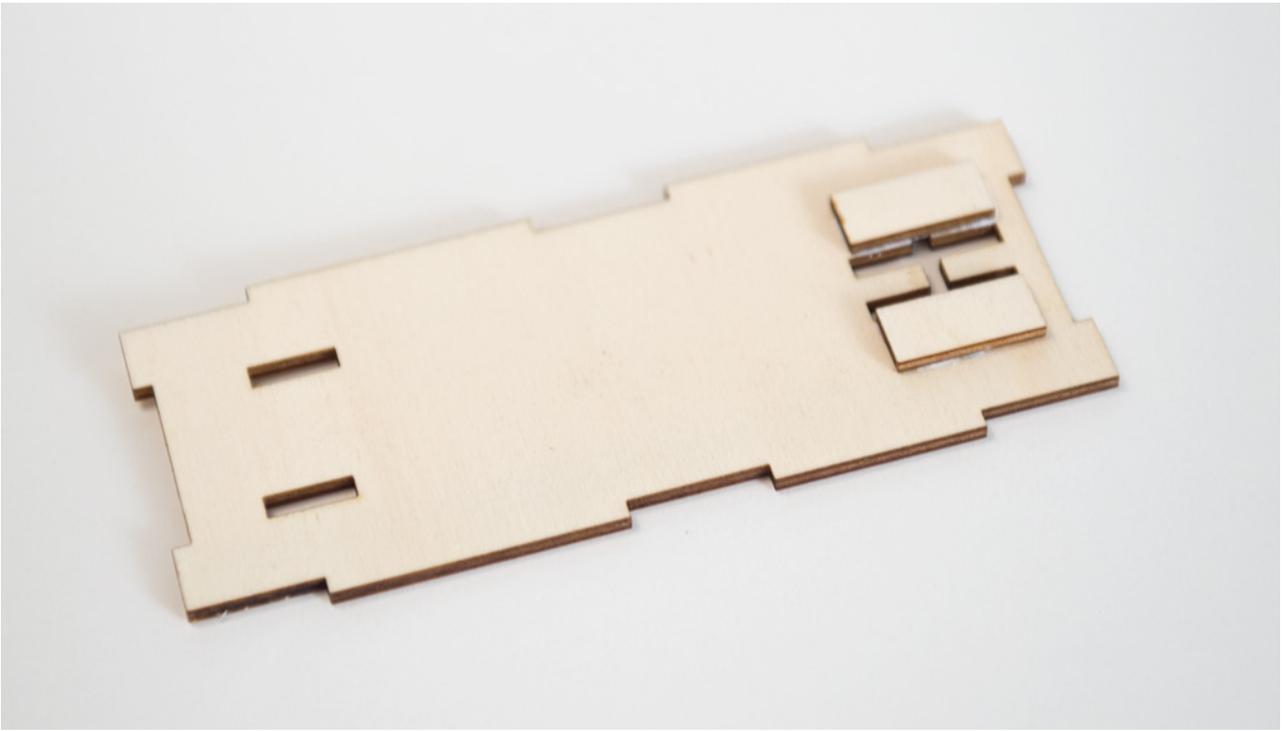
Glue the smaller gears into place as shown.



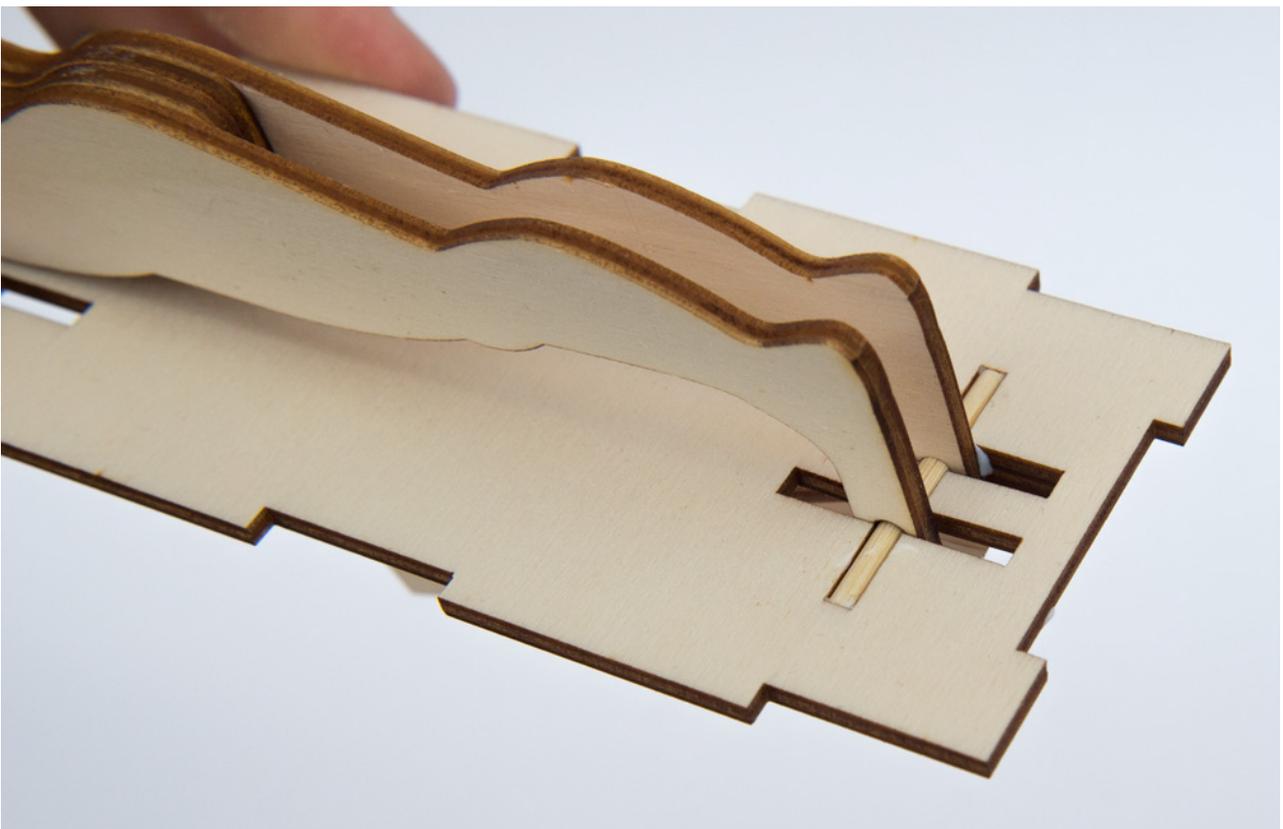
Assemble the handle as shown. The wooden bead is an optional add-on but does improve the look of the handle.



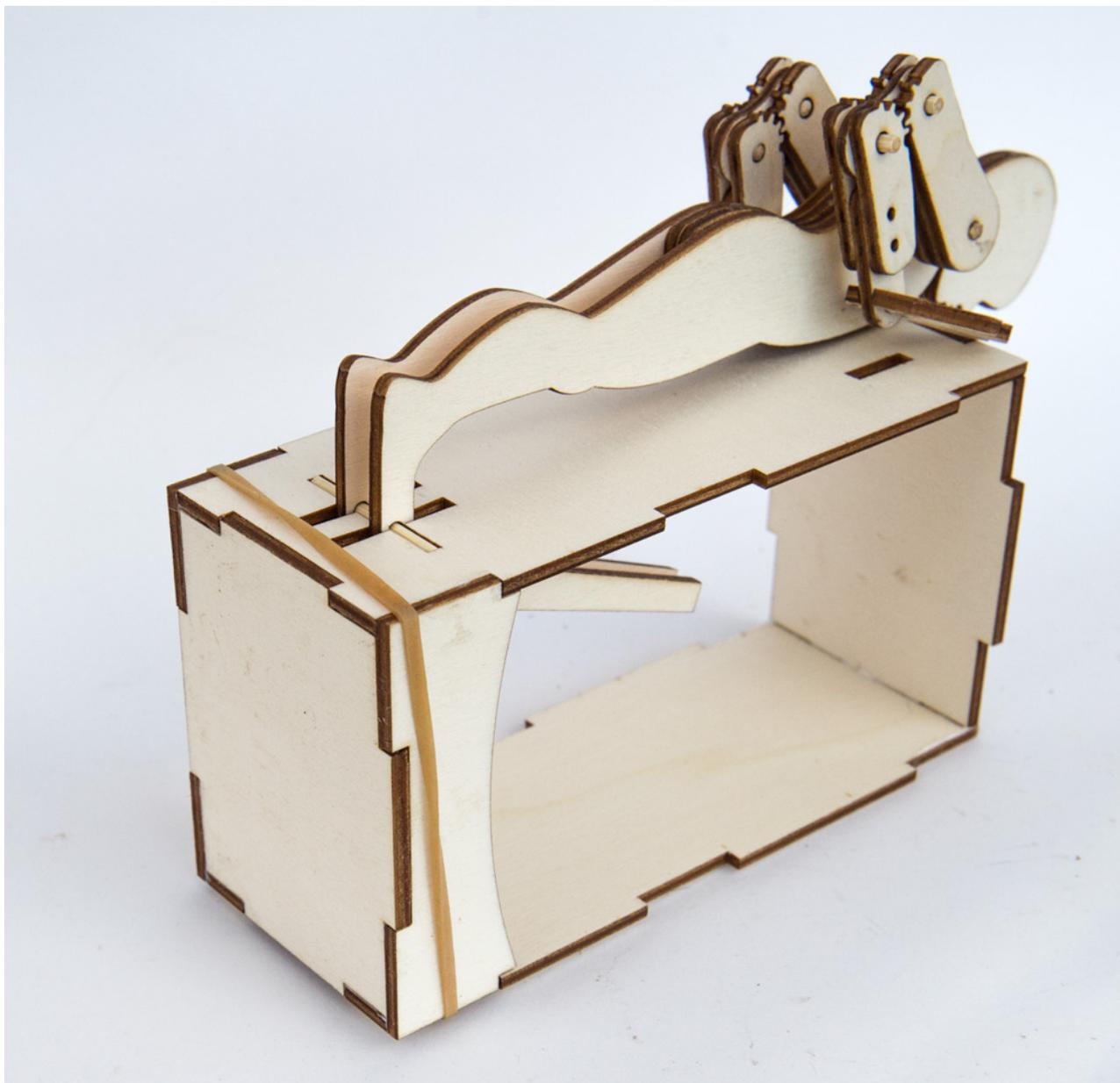
Glue the two rectangles into place on the underside of the box top.



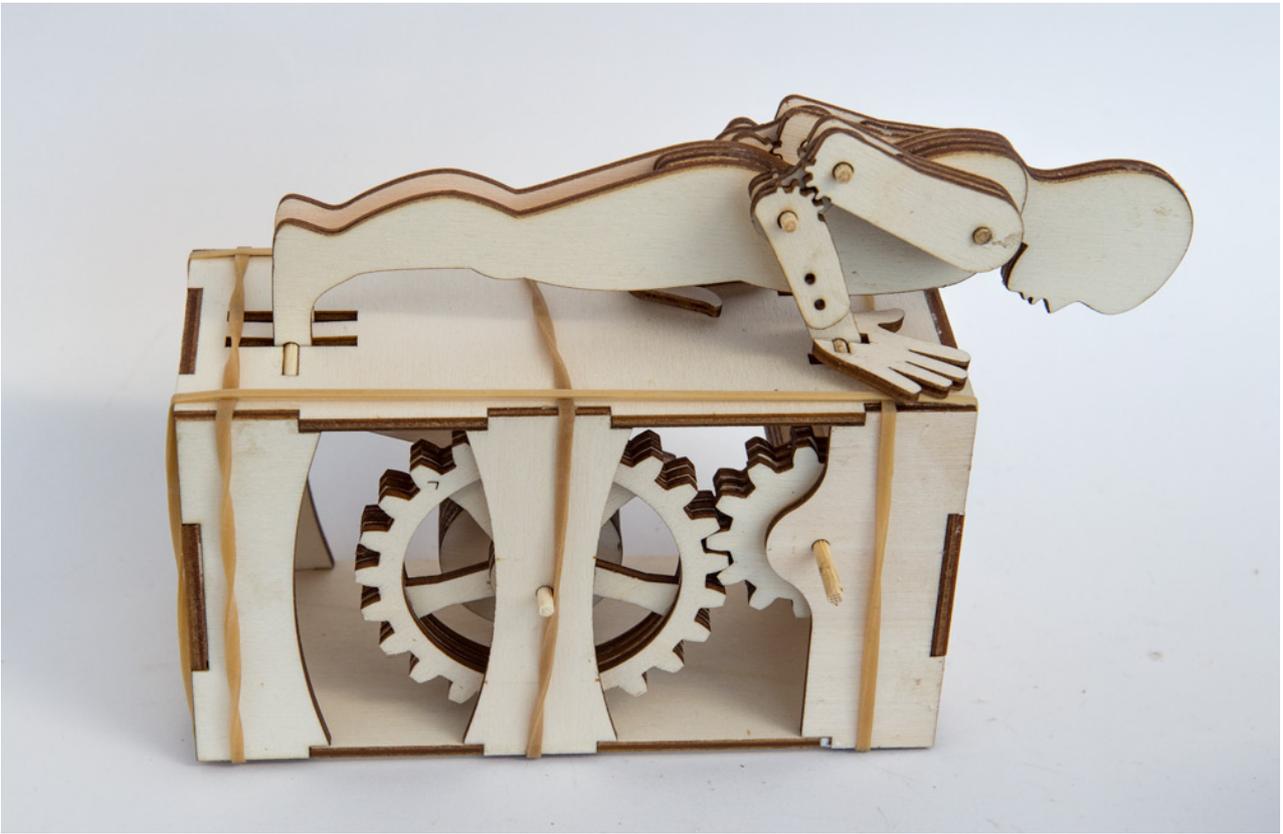
Thread the feet down through the hole on the box top and glue down the pin so that the legs are still free to move up and down.



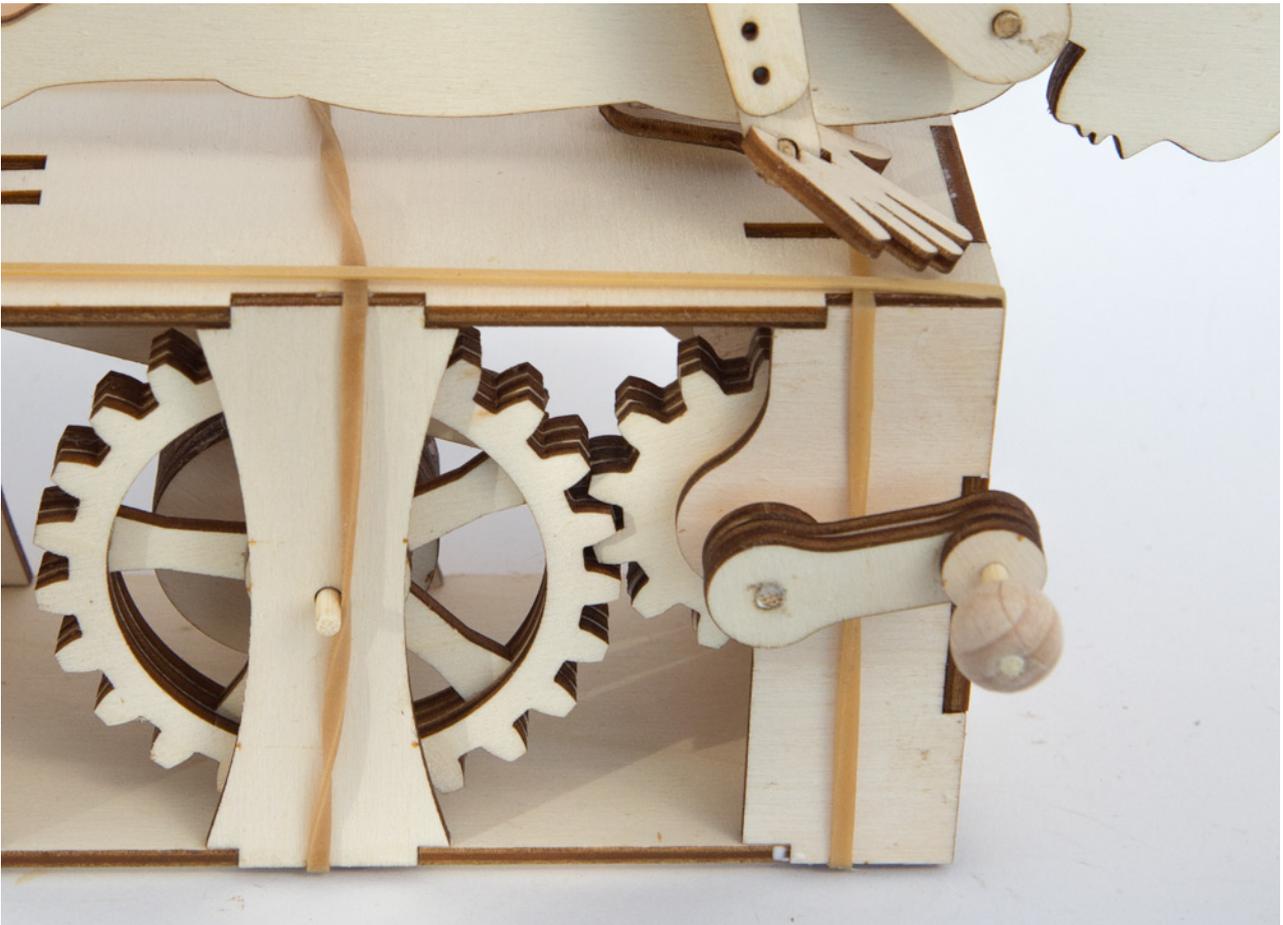
Assemble the back of the box, hold it together with elastic bands while the glue dries.



Assemble the rest of the box, adding the gears and cam as you do so.



Glue the handle into place.



The palms of the hands glue down to the box top. Move them around to find a place when the gears and cam work well lifting the body up and down then keep them in place with an elastic band as the glue dries.



Turn the handle to exercise!

