

# Visit us at [curiokits.com](http://curiokits.com)

## Welcome to the flappy-do kit and manual!

You will need a hot glue gun and glue sticks, some curiosity and a dash of patience. Kits typically take 10-20 minutes to assemble.

Inside you will find the 11 kit parts ready to glue, plus one extra spring in case it wears out. As this is the highest stress part, if you manage to break all 3, the STL is available for free on the website – perfect if you have your own 3D printer or a great excuse to make a friend or visit a library that has one!

### Disclaimers

- CHOKING HAZARD: SMALL PARTS! Keep individual parts away from infants and small children, and curious pet snakes. Cats however seem to enjoy batting at the completed assembly.
- Hot Glue is Hot! As the name implies, hot glue requires burn-level heat: Never touch the hot end of the gun or the glue right after extrusion. See our hot glue guide on the next page of this manual for tips, tricks, and practice tools to get the hang of it.
- This kit is made with PLA, a biosafe plastic with a low melting temperature and can be re-softened if parts or assembly are left in hot cars, near stoves or heating elements, or open flames. Probably best not to consider any of those toys anyway.

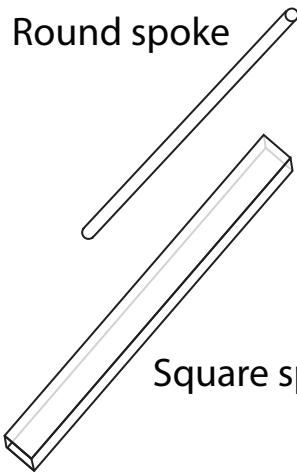
See our website for FAQ, other interesting projects, and how other people make their flappies! Thanks for playing, enjoy the process, and feel free to tell us how it went for you on [curiokits.com](http://curiokits.com)

# Instruction manual

1

## Test fit the parts

Round spoke



Hinge barrel x2



Head/tail bulb x2



Slide tab



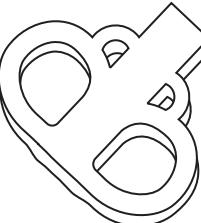
Square spoke



Thumb ring



Finger rings



Wing spring x2



Glue



No Glue



Notice



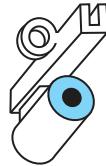
Active parts (blue)

This step by step manual will guide you through the process. Note the part names and symbols like whether or not glue is applied. In each step, the active part will be shown in blue. If you get stuck or confused, ask a guide for help. otherwise, have fun!

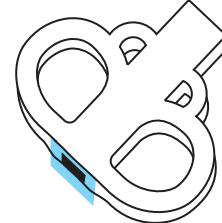
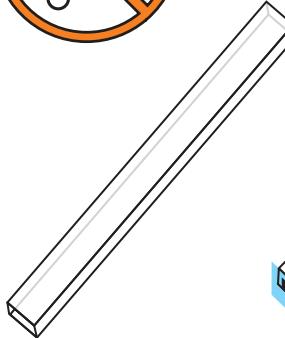
1



## Test fit the parts



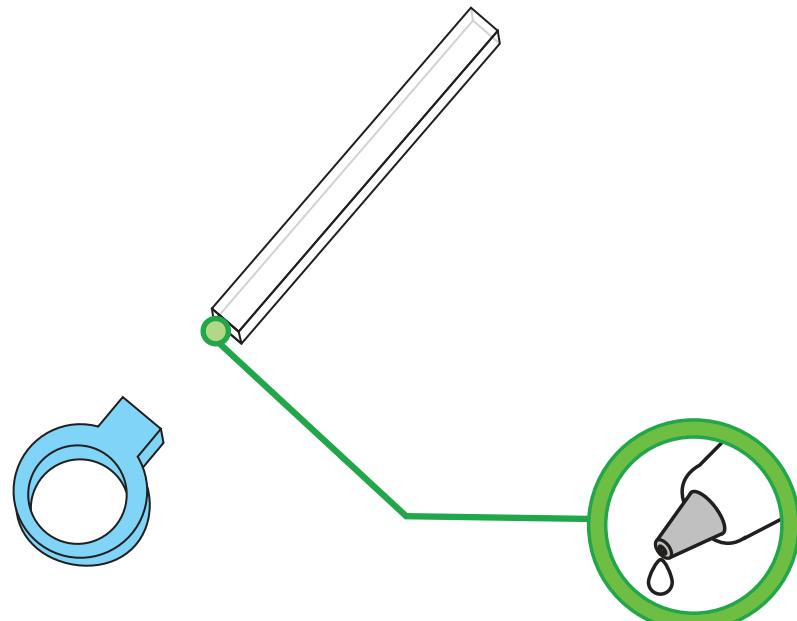
this part has  
two holes and  
is tested twice



Test each part to make sure it fits. Acrylic spokes should move easily and smoothly into or through the parts. If you find a part that doesn't work well, exchange it for a working one. 3D printing doesn't come out perfectly every time, and mistakes happen! Better to check everything first than find out halfway through.

2

# Start the hand assembly

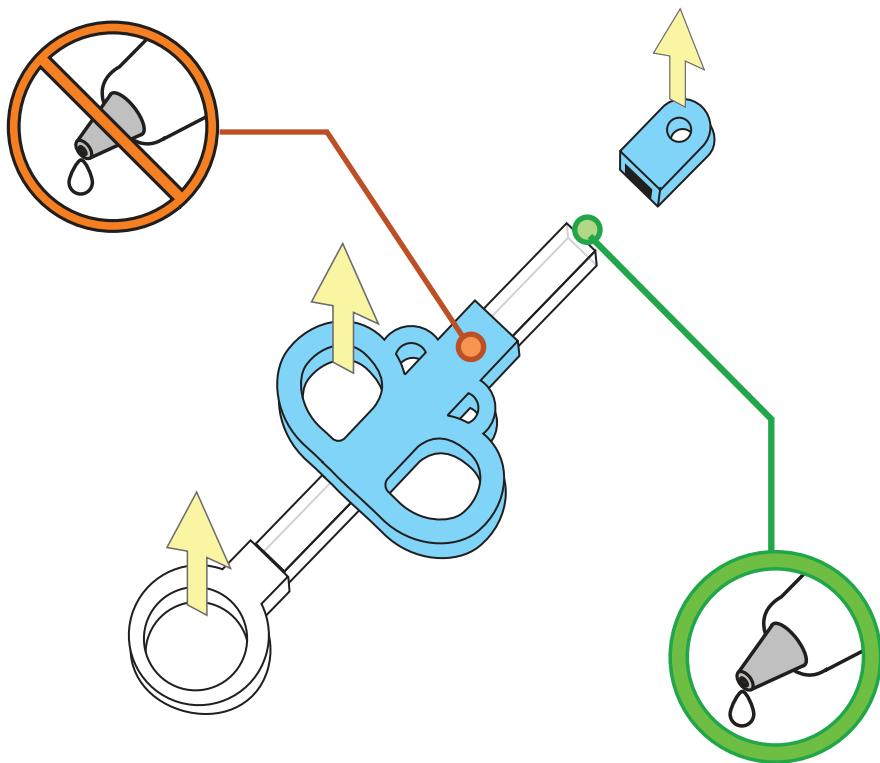


Put a small dab of glue onto one end of the square spoke. A small dot will do fine. Press the acrylic square spoke into the glue, and hold until it cools, about 15 seconds. Remove any excess glue that came through to the backside.



# Complete the hand assembly

3

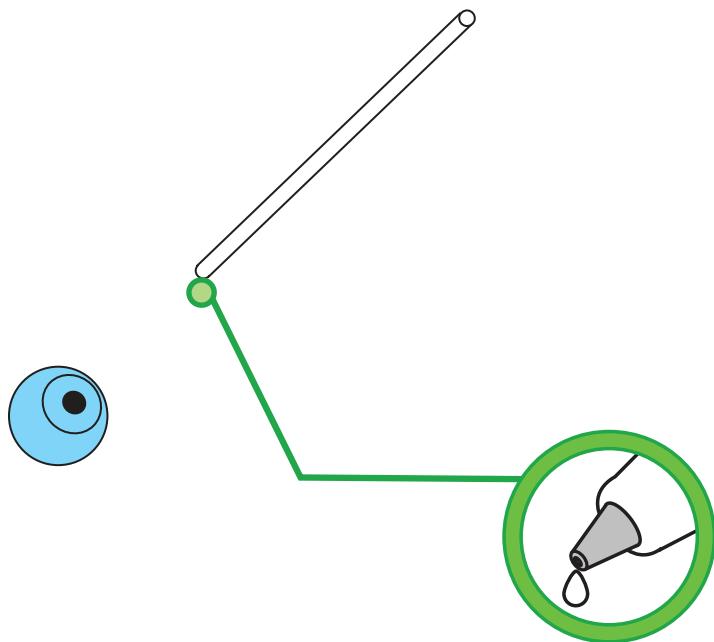


Slide the finger rings onto the square spoke. Make sure the thumb ring and finger rings are facing the same direction. Use a small dot of glue on the square spoke, and press it into the slide tab, **round hole facing up** like the finger rings! Once cooled, remove any excess glue. Shake the assembly, the finger rings should glide easily between the two glued parts.



4

## Start the puppet

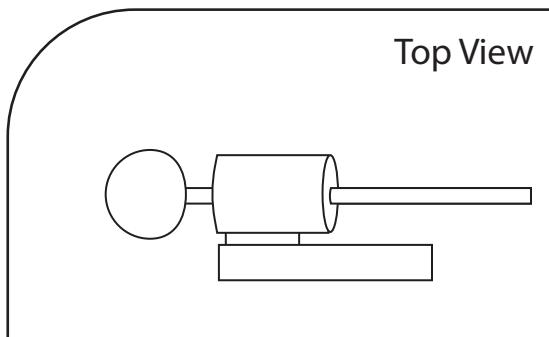
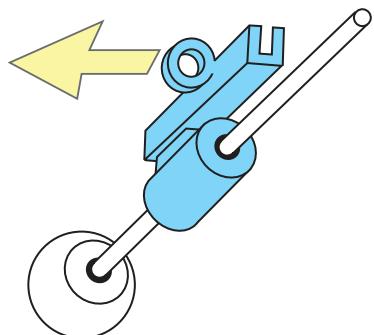


Set the hand assembly aside and locate the head bulb and round spoke. Use a small dab of glue into the head bulbs hole, and press the rod into the head bulb until it stops. Remove any excess glue once cooled, a small amount showing is fine.



**5**

# Add the hinge

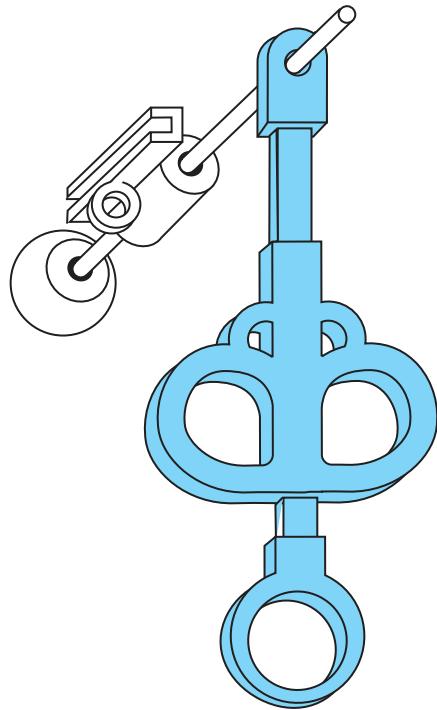


Slide a hinge barrel onto the round spoke behind the head, loop facing down, wing slot pointing away from the head. (see top view)

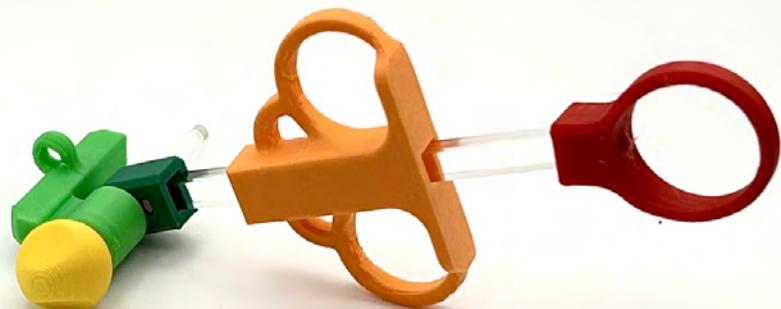


6

# Add the hand assembly

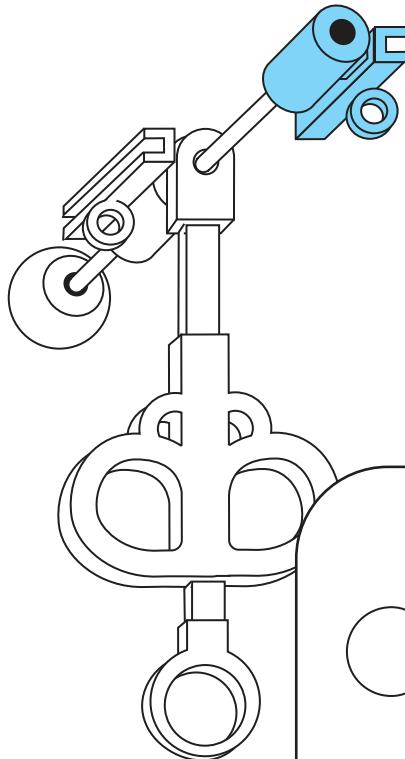


Guide the previously made hand assembly onto the round spoke behind the hinge barrel. There is no right or wrong side to the assembly.



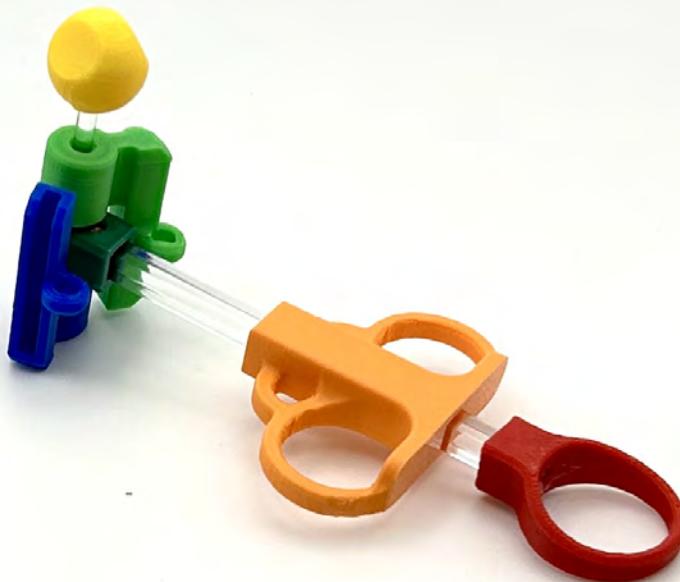
7

# Add the hinge (2)

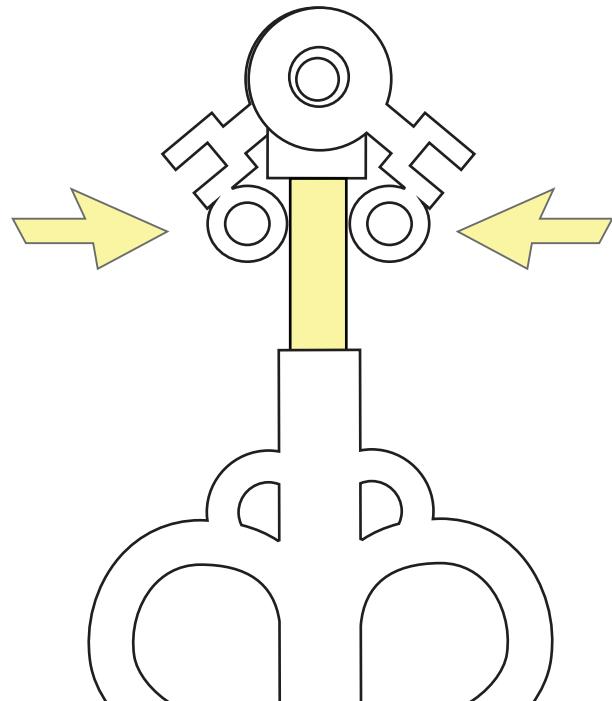


Top View

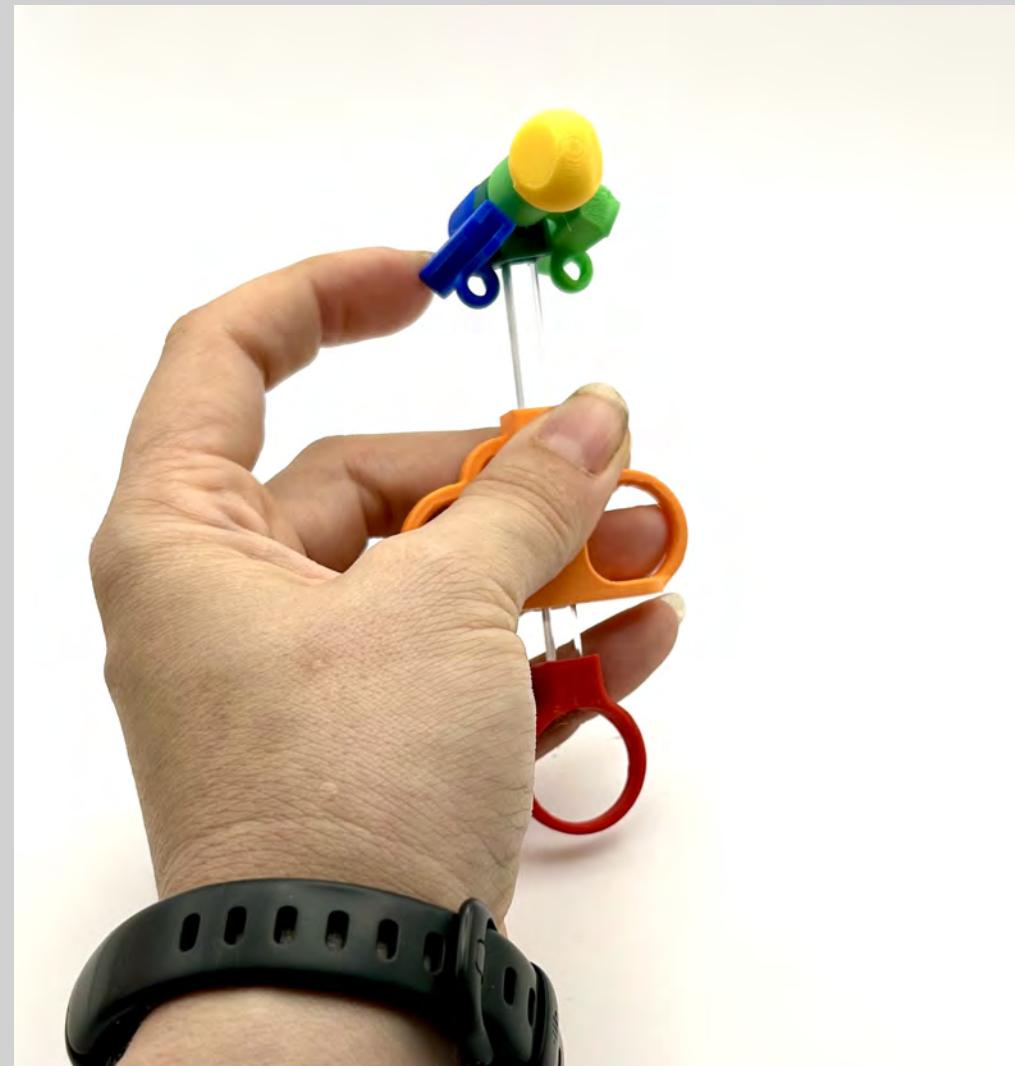
Slide the second hinge barrel onto the round spoke, loop facing down, wing slot pointing towards the head. Check the top view. When pushed into contact, the 3 free moving parts (two hinge barrels and slide tab hand assembly) should move easily, but the hand assembly will prevent the hinge barrels from fully rotating around the round spoke.



# Check puppet part orientations

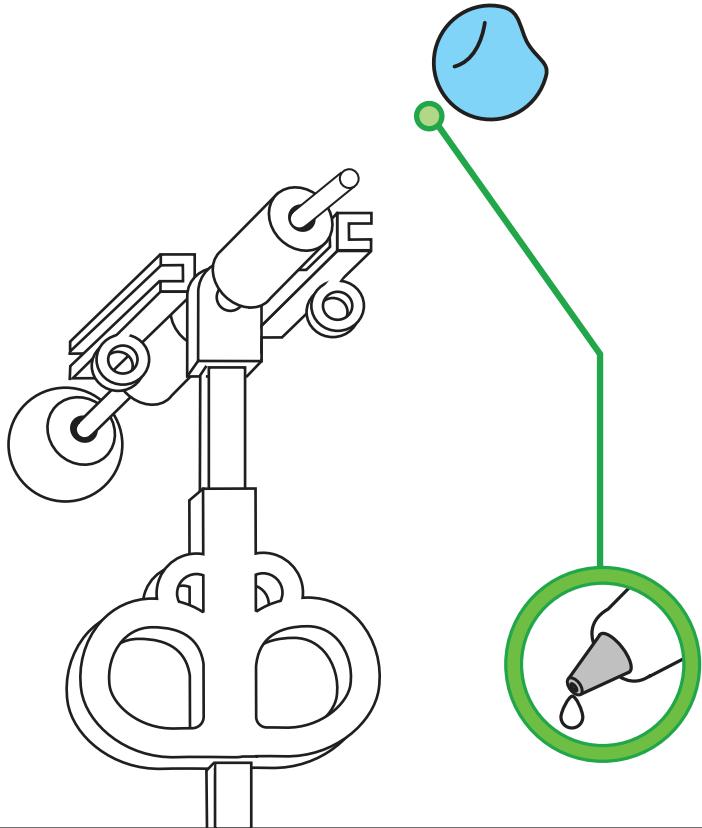


Check that the loops of both barrels come to rest on or near the square spoke of the hand assembly. The assembly cannot be completed if the loops end up on the wrong side of the wings!



9

# Enclose the hinge

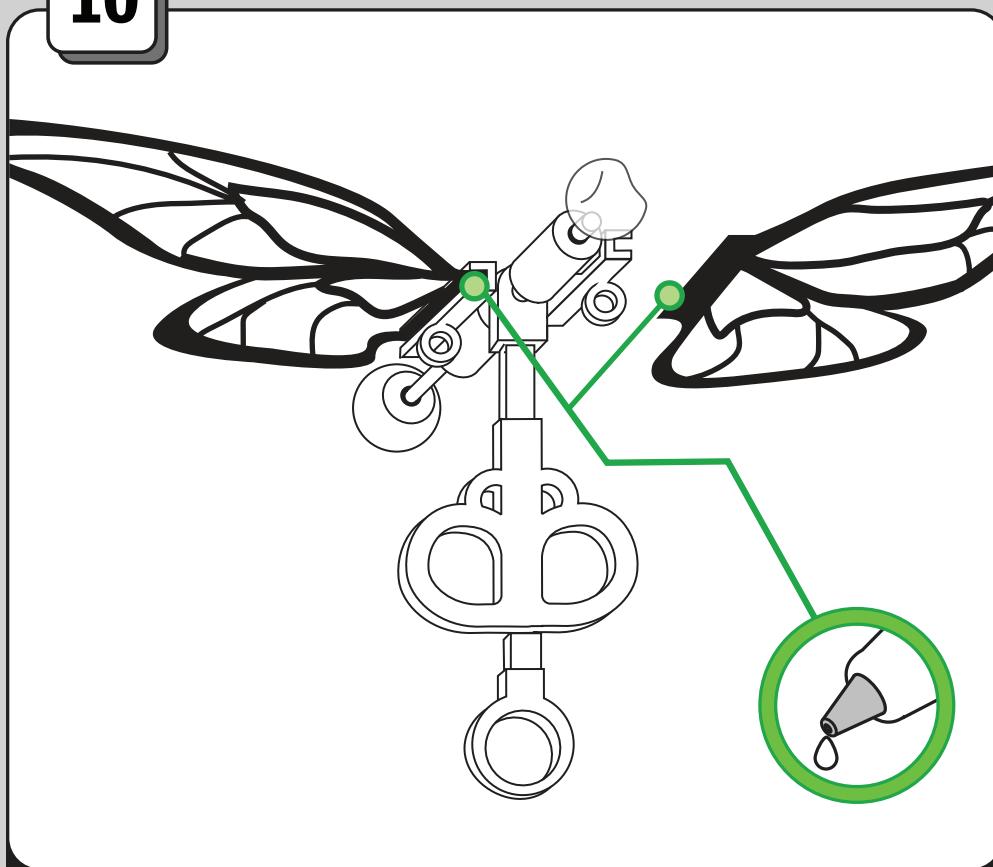


After ensuring the parts are oriented correctly in previous steps, attach the tail bulb. Apply a small dab of glue to the tail bulb and press onto the spoke until it stops. Let cool, twisting the hinge barrel to make sure it isn't fused onto the tail bulb.



**10**

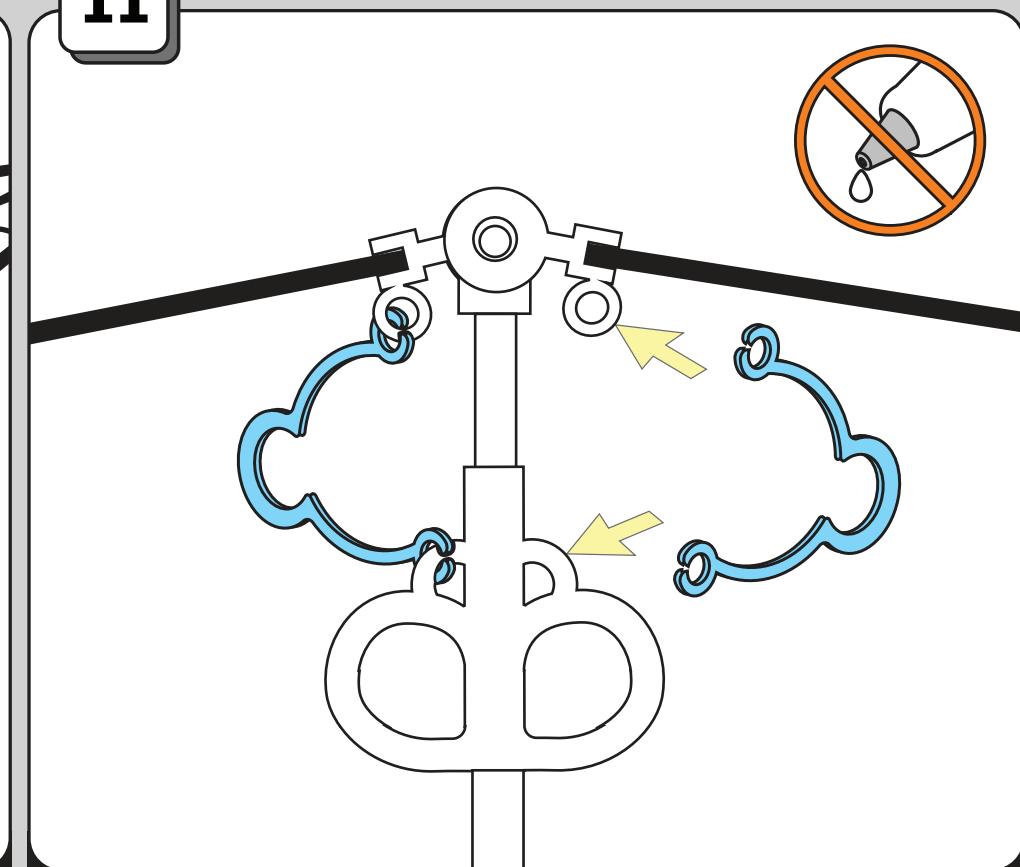
## Add the wings



With finished wings, apply glue to the square spine of the wing and press into the wing slot of the hinge barrel until it cools. The wings do not need to slide and can be pressed straight in.

**11**

## Add the springs



Snap the wing springs onto the loops of the hinge barrels and finger ring part of the hand assembly. Push and twist gently, until the spring snaps on. The finger rings loops may be easier to do first. Your assembly is complete!

Start flapping!