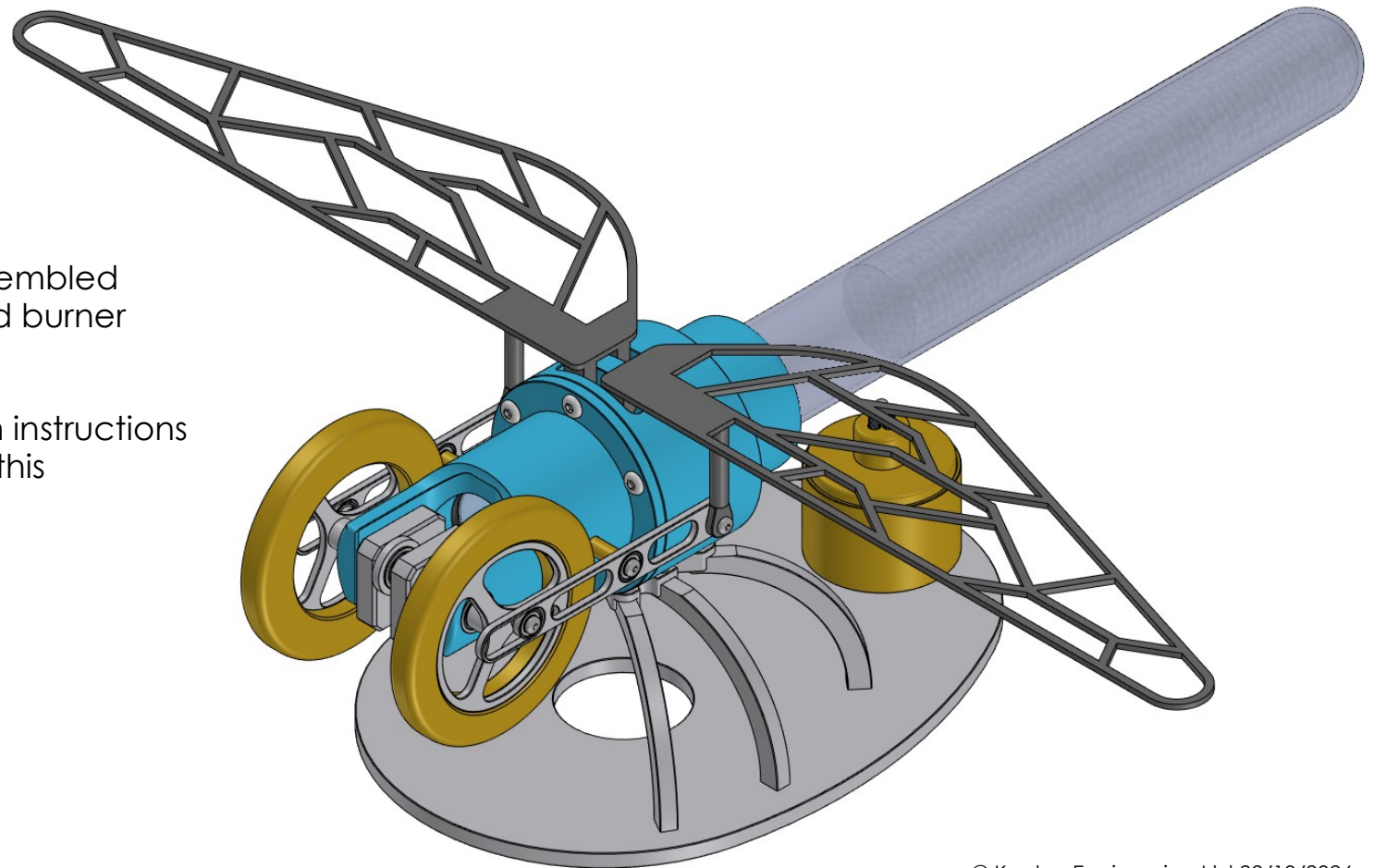


Kontax Flame Fly operation and maintenance instructions

- Make sure you have a suitable fire extinguisher to hand during operation.
- Never leave a running engine or naked flame unattended.
- Take care the engine does not vibrate itself off your table.
- All parts of the engine will be very hot during operation.
- The engine will take time to cool down after operation.
- The flame produced by a steel wick is almost invisible.
- Ensure burner is fully extinguished after use.
- Make sure children are fully supervised.

The engine is almost fully assembled and just needs the wings and burner attaching.

Maintenance and operation instructions can be found at the end of this document.



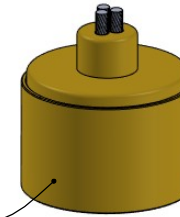
Parts List



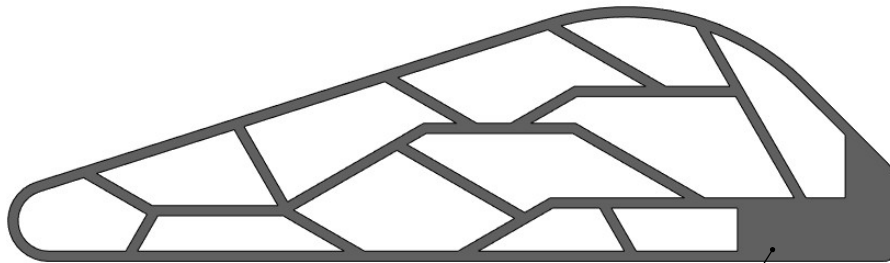
2x Hinge pin



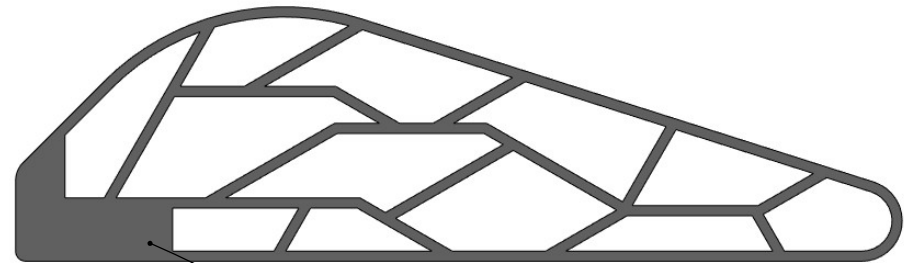
1x 2mm Hex key



1x Burner



1x Left wing

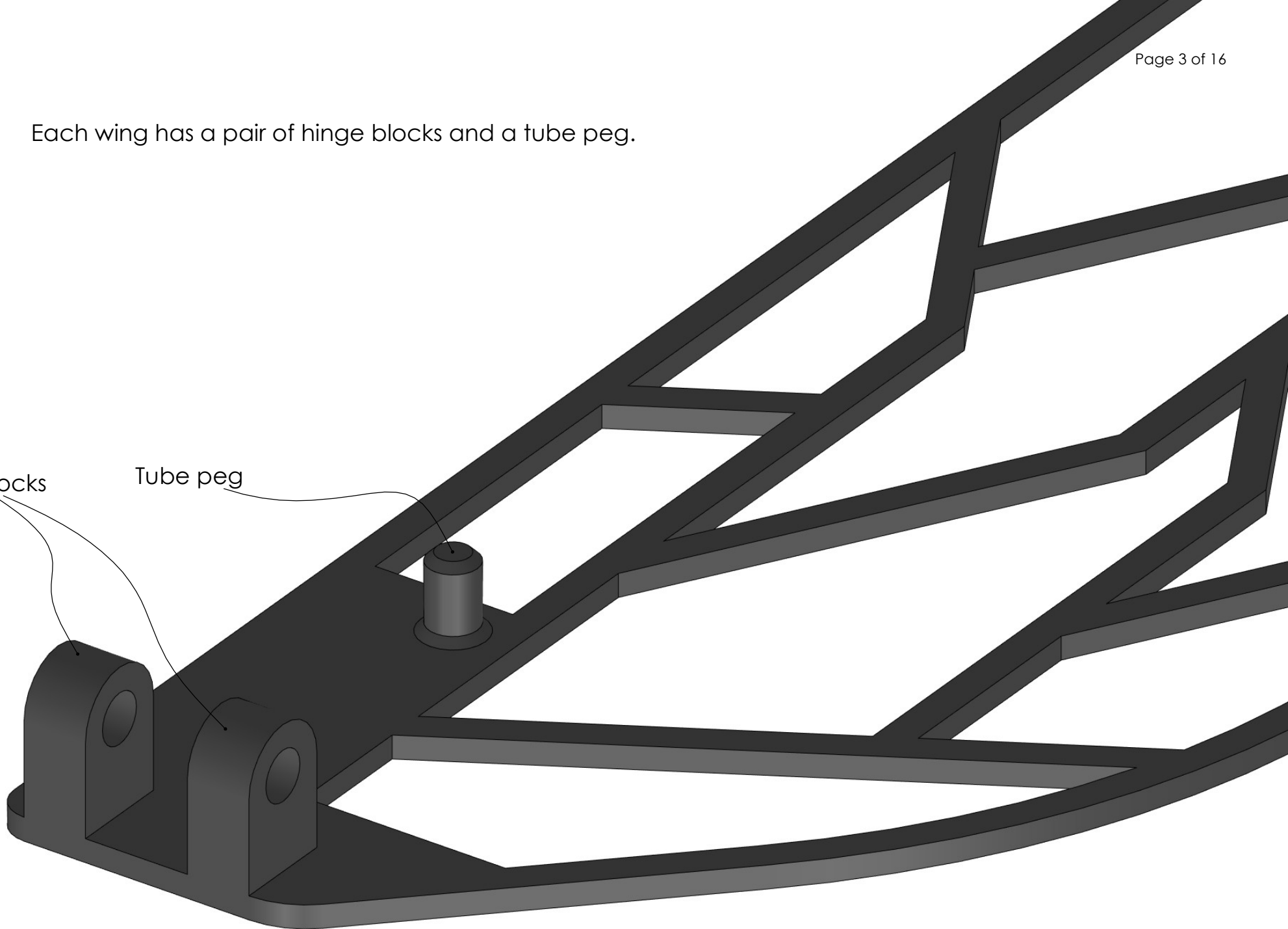


1x Right wing

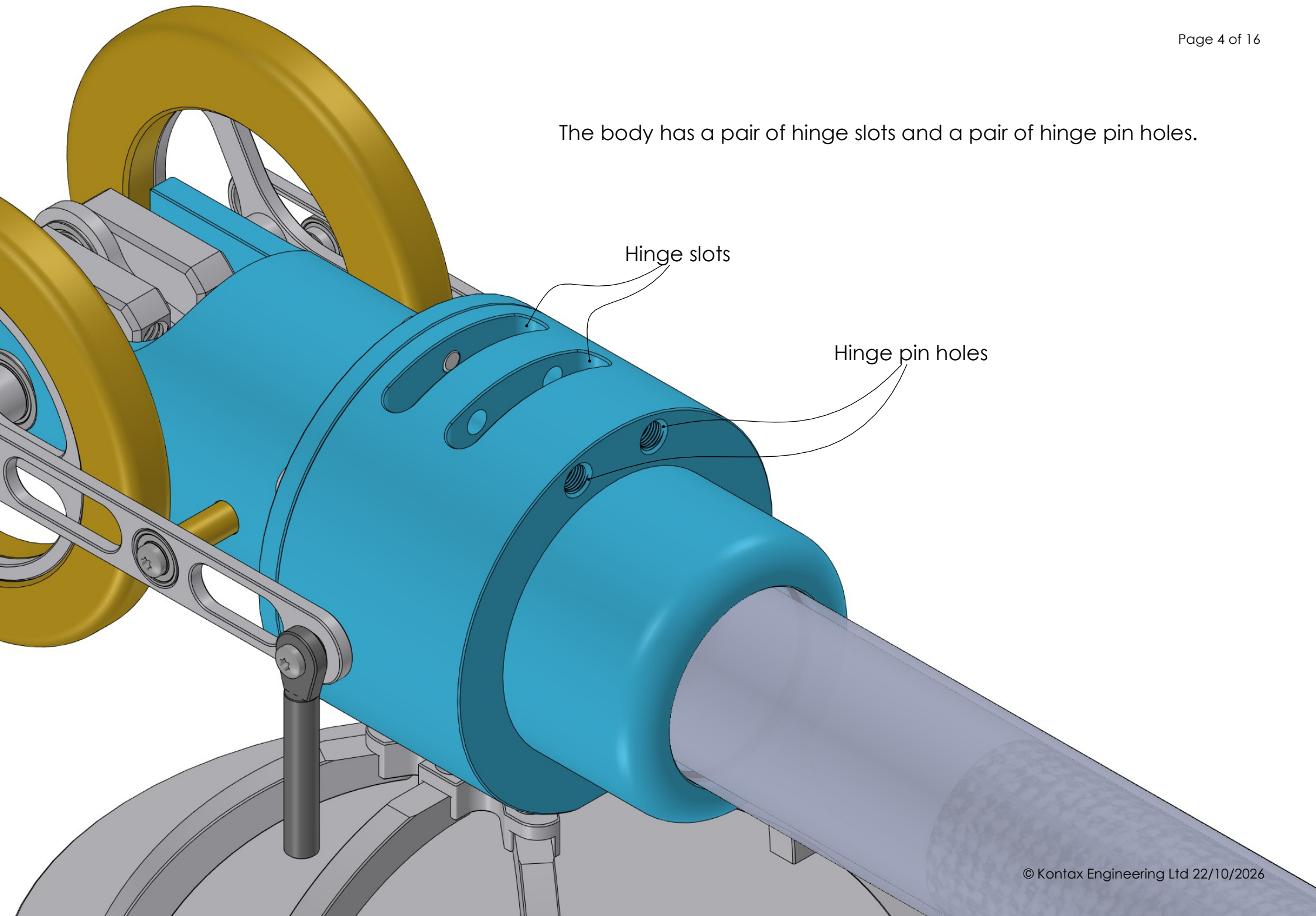
Each wing has a pair of hinge blocks and a tube peg.

Hinge blocks

Tube peg



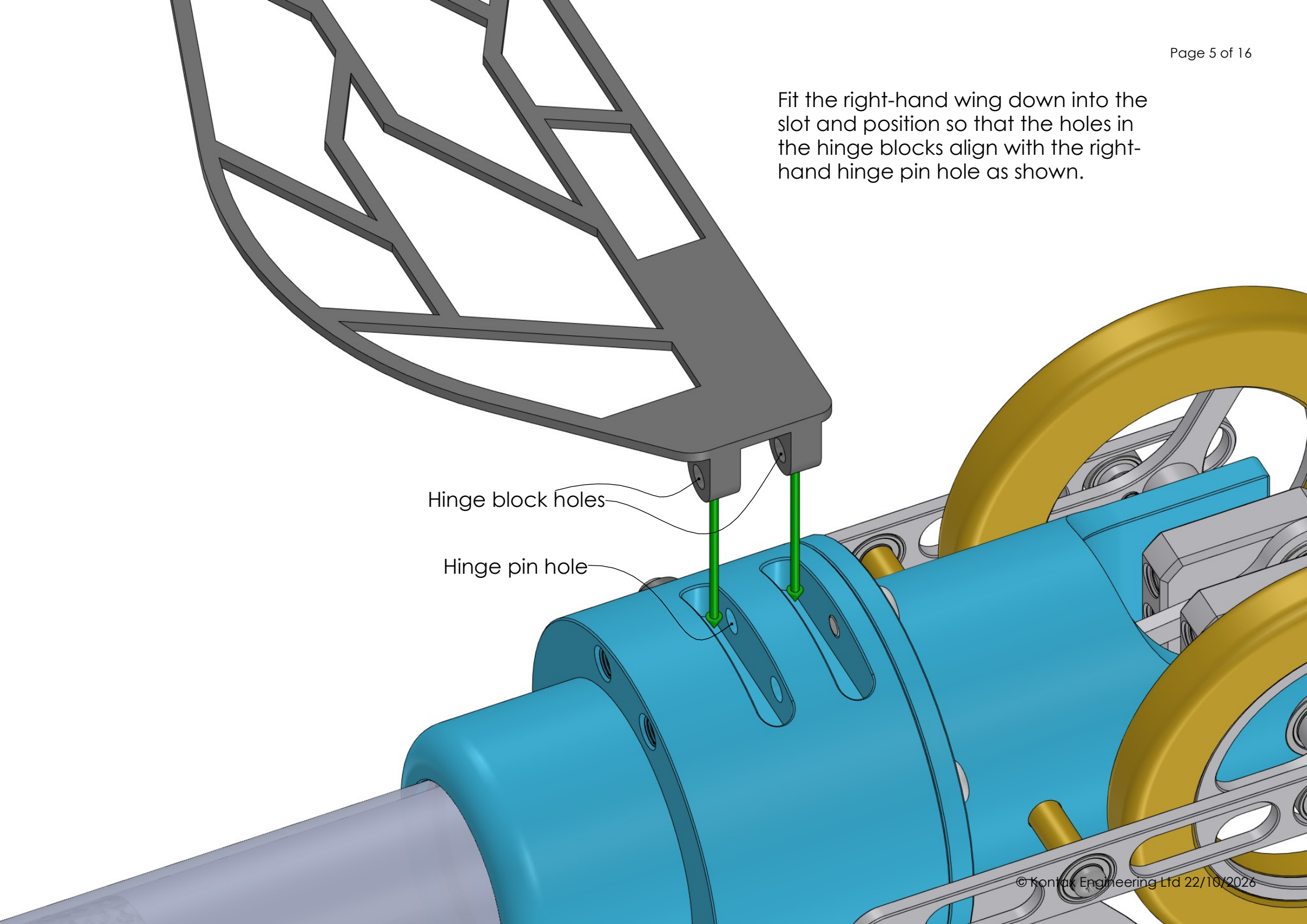
The body has a pair of hinge slots and a pair of hinge pin holes.



Fit the right-hand wing down into the slot and position so that the holes in the hinge blocks align with the right-hand hinge pin hole as shown.

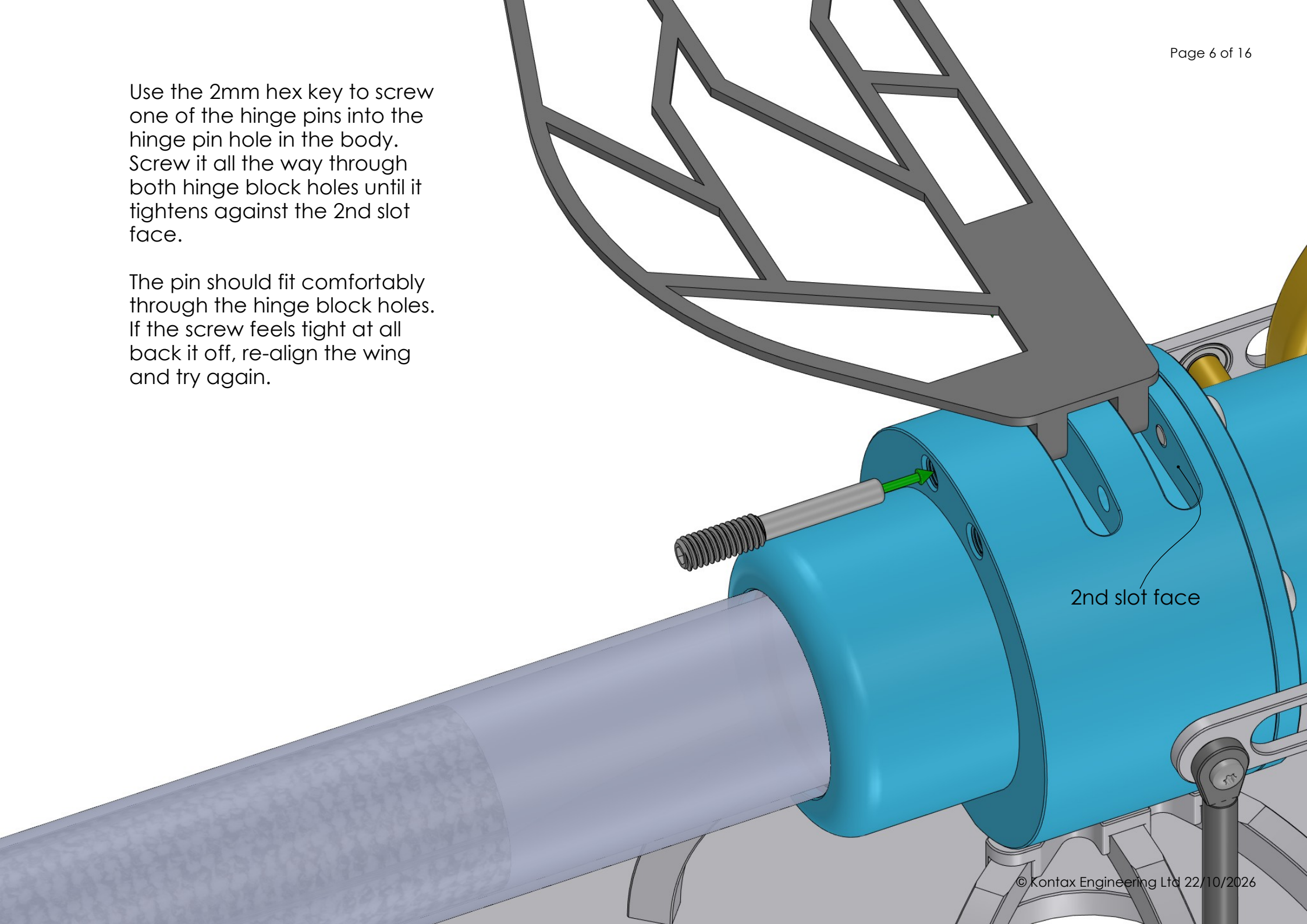
Hinge block holes

Hinge pin hole

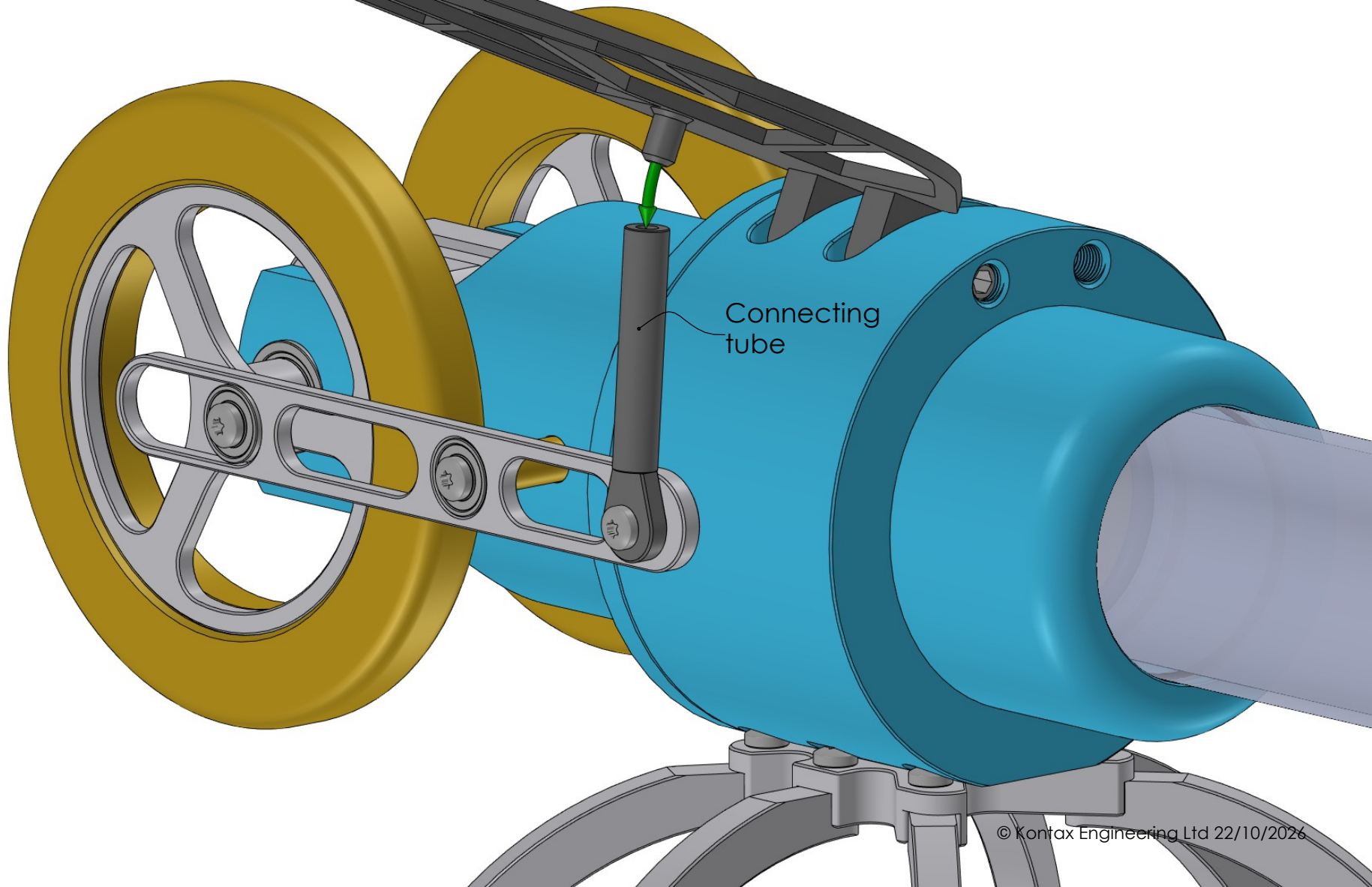


Use the 2mm hex key to screw one of the hinge pins into the hinge pin hole in the body. Screw it all the way through both hinge block holes until it tightens against the 2nd slot face.

The pin should fit comfortably through the hinge block holes. If the screw feels tight at all back it off, re-align the wing and try again.

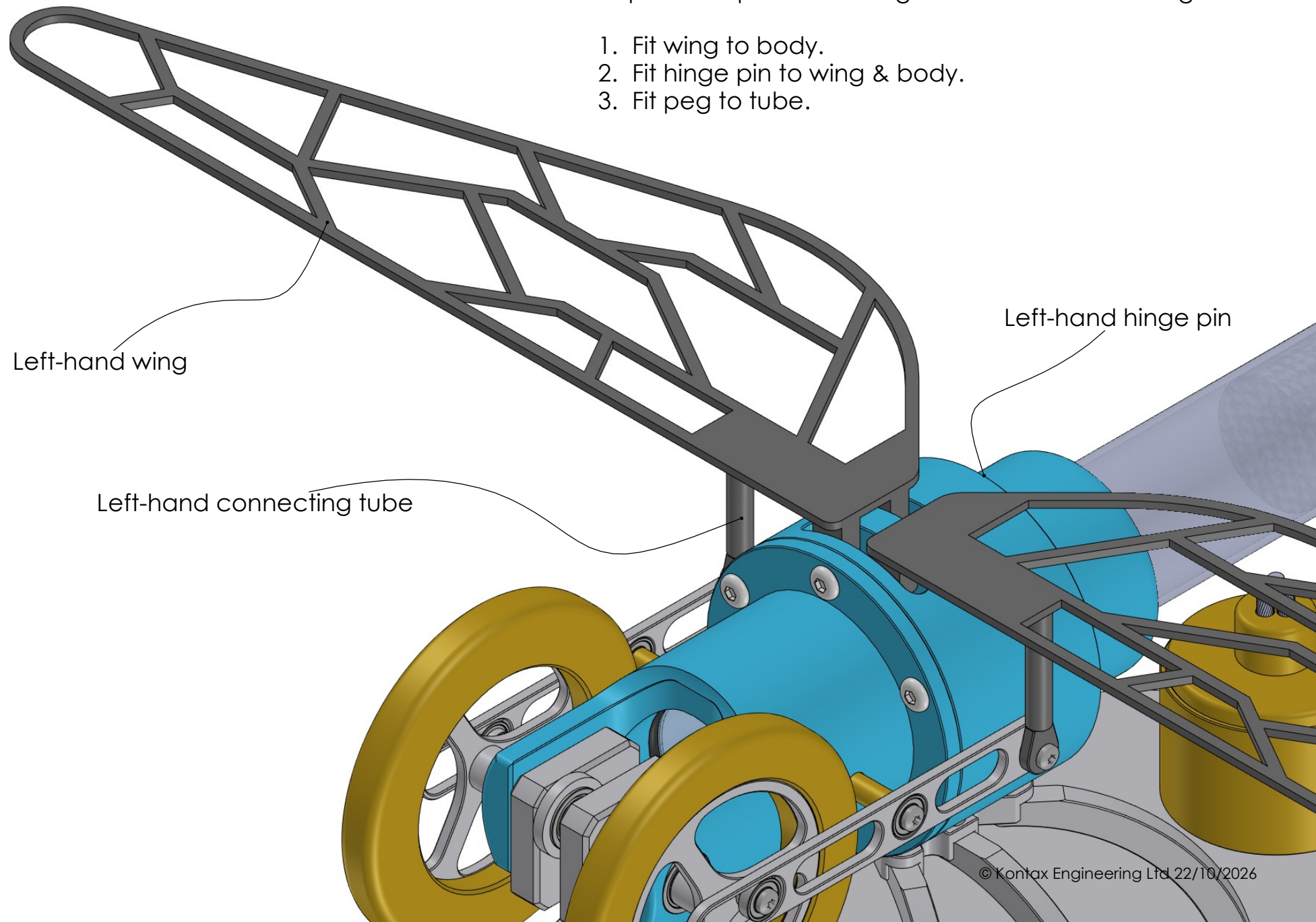


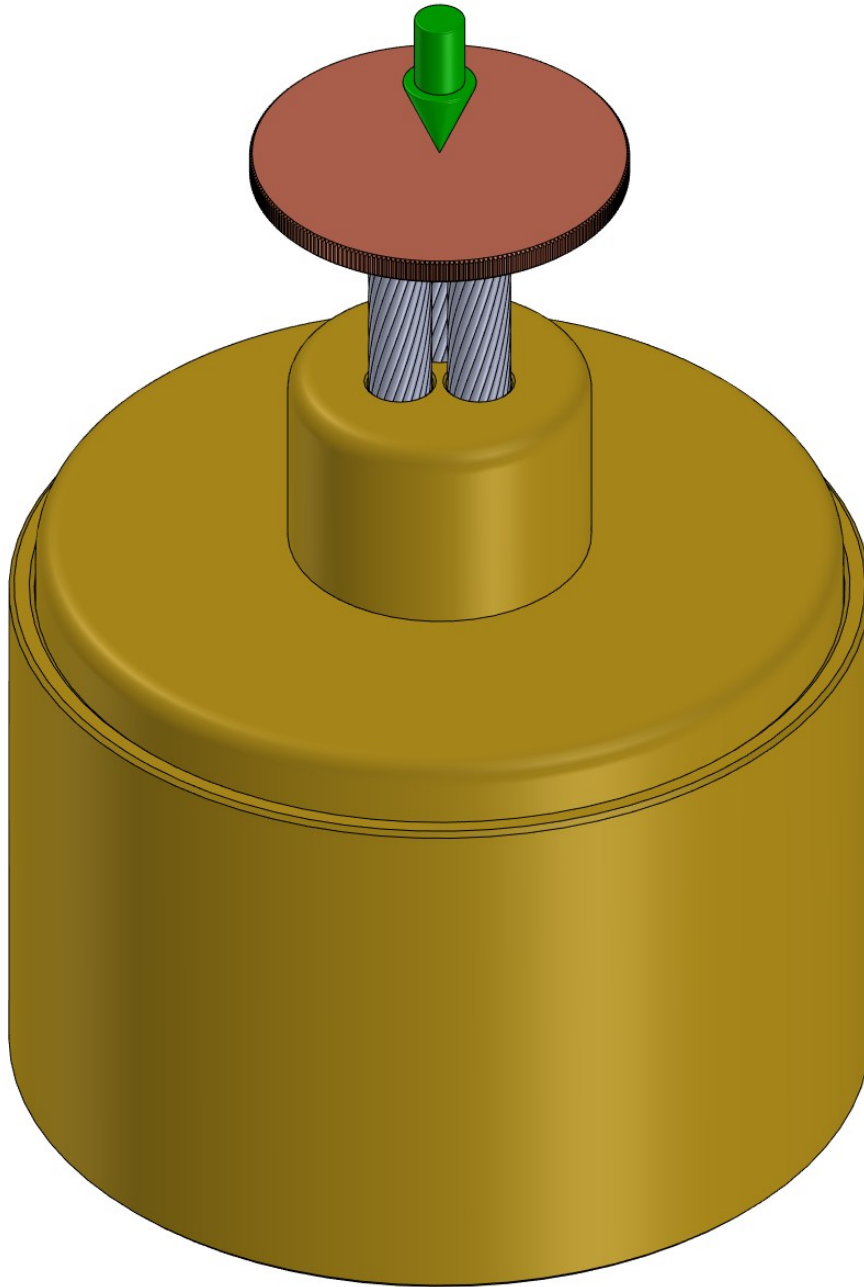
Rotate the right-hand connecting tube upwards and squeeze the wing peg all the way into the tube.



Repeat the previous 3 stages for the left-hand wing.

1. Fit wing to body.
2. Fit hinge pin to wing & body.
3. Fit peg to tube.

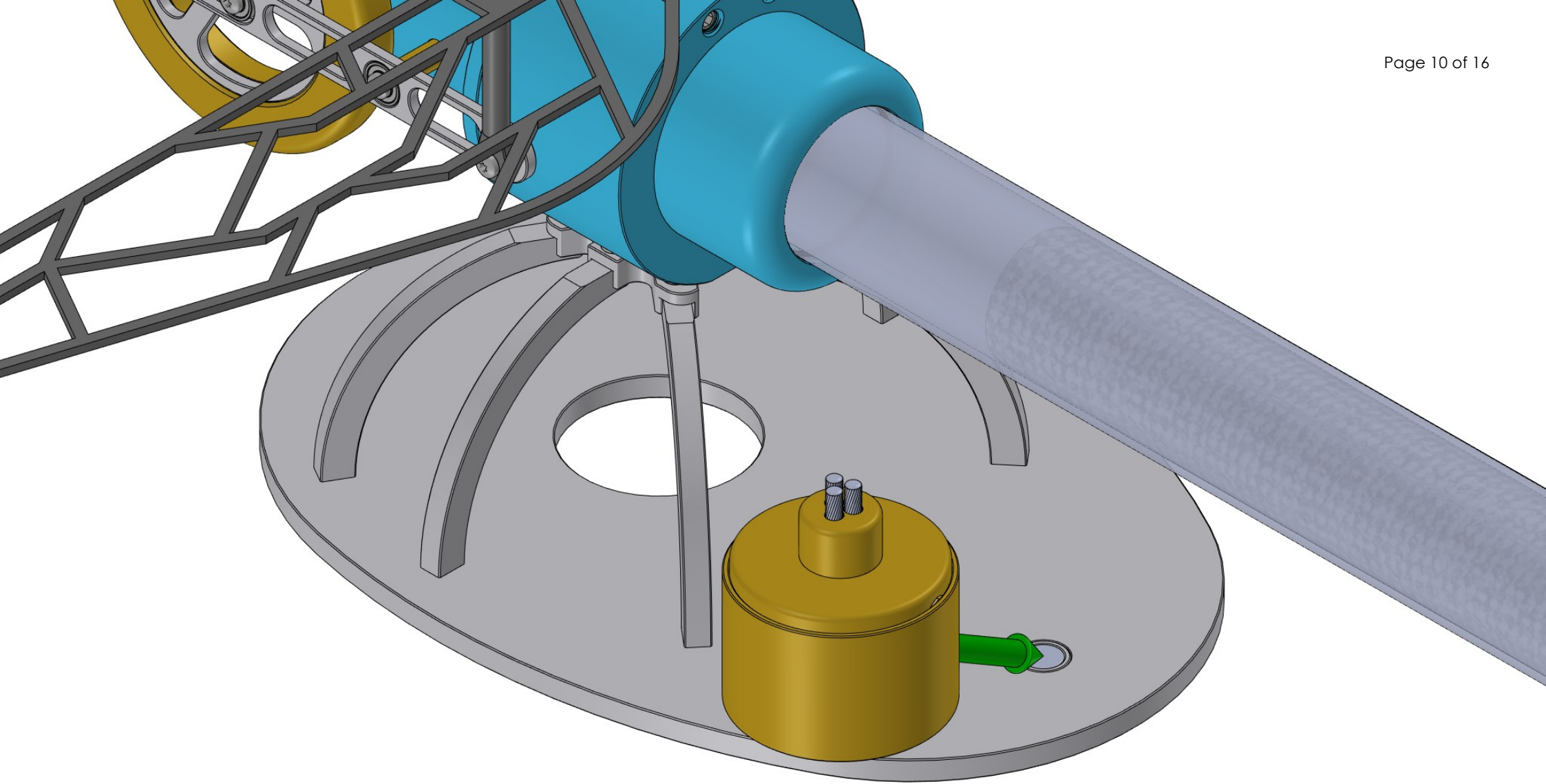




Fit the burner cap into the burner and then fit the wicks into the cap. Use a coin to push the wicks all the way into the bottom of the burner body.

Be careful of sharp strands on the wicks!

Do not push wicks with fingers!

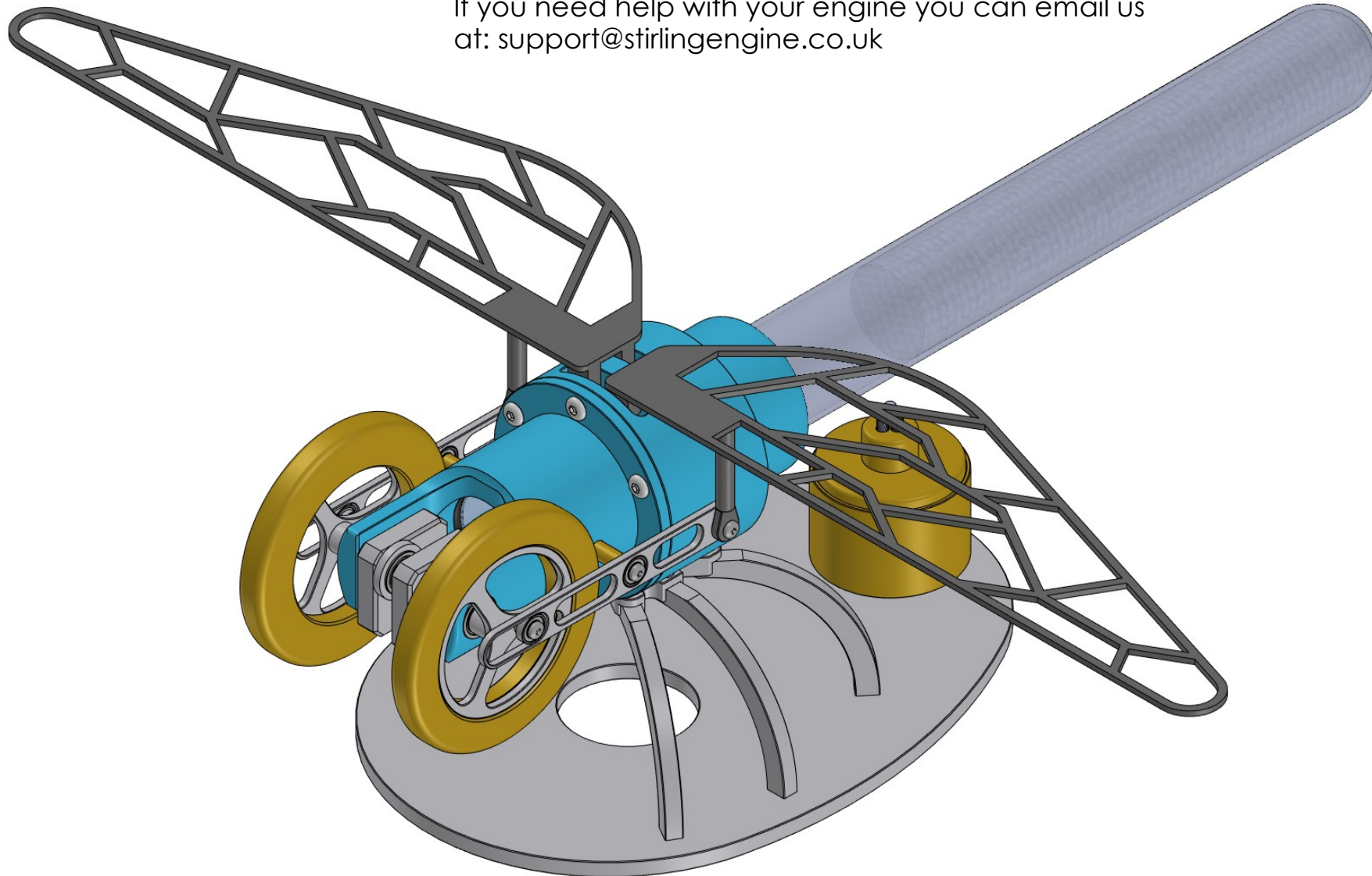


Attach the burner to the magnet in the base.

Your Kontax Flame Fly engine is now fully assembled.

Operation and maintenance information can be found in the next few pages.

If you need help with your engine you can email us at: support@stirlingengine.co.uk



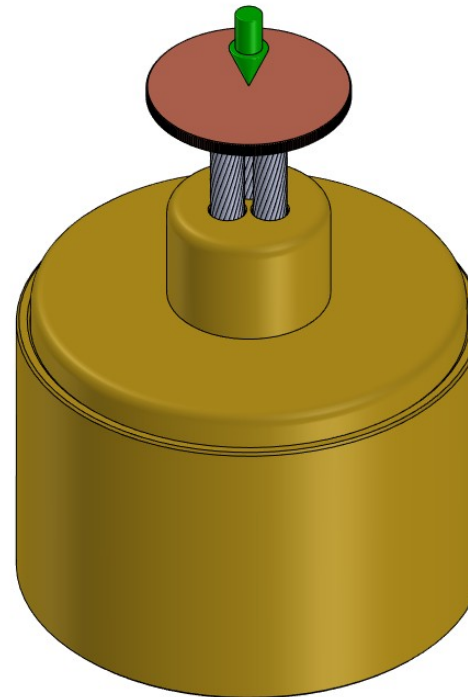
- All parts of the engine will be very hot while in operation and will take time to cool down after running.
- The flame produced by a steel wick can be almost invisible, ensure burner is extinguished after use.
- Make sure you have a suitable fire extinguisher to hand in case of emergencies.
- Never leave a running engine or naked flame unattended.
- Make sure children are fully supervised.



The engine uses Bioethanol, Methylated Spirits or Denatured Alcohol as fuel. Bioethanol will give a cleaner burn and leave fewer deposits on the glass tube.

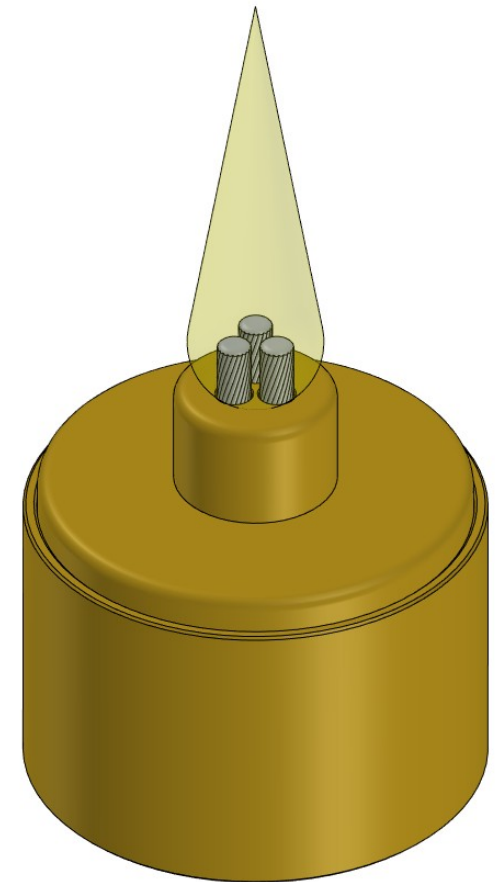
Remove the burner cap and wicks from the burner body and fill the body with fuel to the fill line.

DO NOT FILL HIGHER THAN THE FILL LINE!



Fit the burner cap back into the burner body and press the wicks with a coin to make sure they are the correct length.

Do not push wicks with fingers!



Wait 10-15 seconds for the wicks to draw up some fuel and then light them.

You should get a flame about 20-30mm high.

Operation

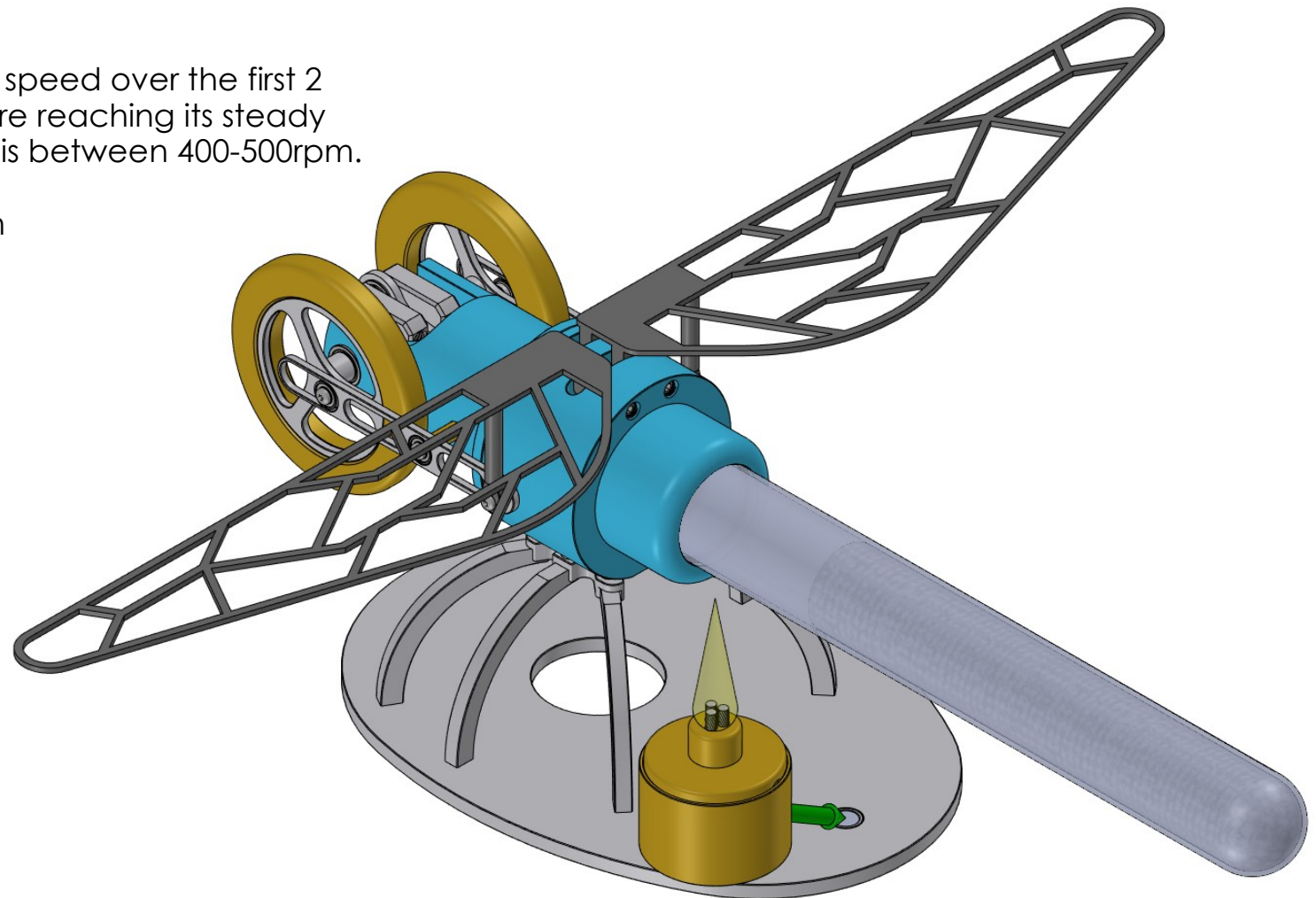
Carefully attach the lit burner to the magnet in the base and allow the engine to heat up for 2 minutes.

After the engine has heated up give it a spin, it will run in either direction.

The engine will increase in speed over the first 2 minutes of operation before reaching its steady operational speed, which is between 400-500rpm.

The fuel should be enough for a 10 minute run.

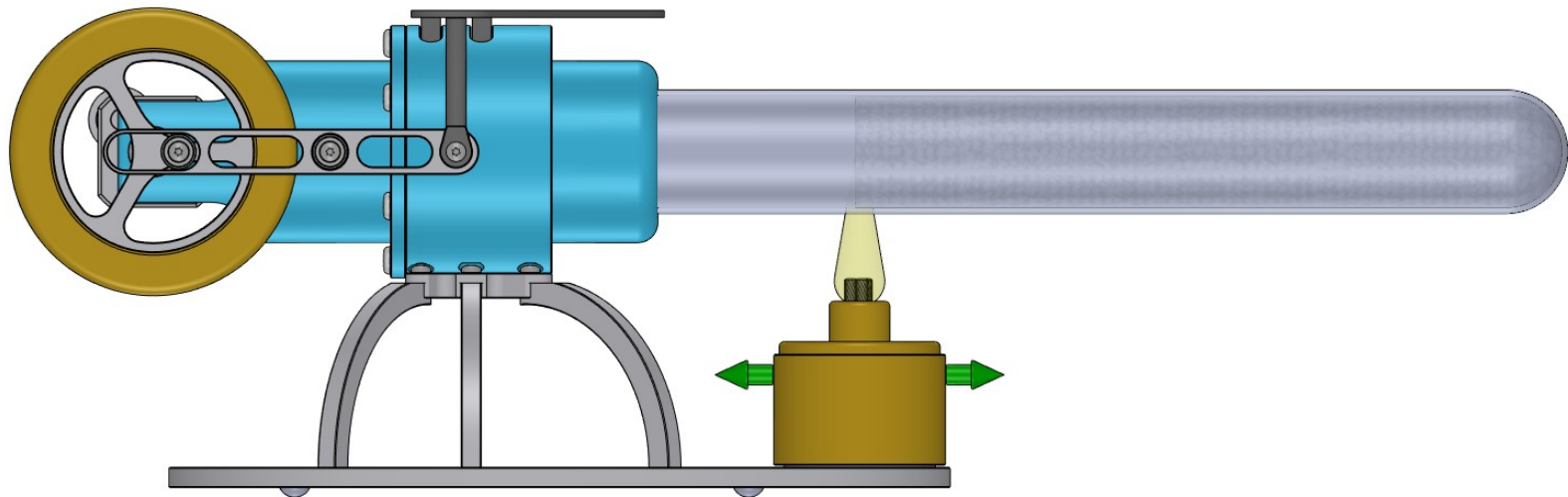
Ensure burner is fully extinguished after use!



Operation

The magnet in the base allows adjustment of the burner position.

The theoretical best position is with the centre of the burner just slightly inside the wire regenerator stack, but you may find better operation with it slightly forwards or backwards.



Maintenance

The engine is designed to be as maintenance-free as possible, requiring only a tiny drop of oil every few hours of runtime, or after being left idle for several months in a hot environment.

Only apply oil to the crank and axle bearings, NEVER on the side arm bearings.

Sewing machine CT15 or 4-in-1 oil is recommended, and can be applied by dipping a pin in the oil to get a tiny drop on the end and then dabbing it on each bearing.

Tiny drop
on crank bearing

Tiny drop on both axle bearings

NO OIL!



Our workshop is located in the Thames Valley, United Kingdom and is staffed by a skilled team of designers, machinists and assemblers. We have 3 CNC mills, 3 CNC lathes and 3 CNC mill-turn centres.