

# LouLou DNAC-900

3d-printz Original (ok, it's a clone)



**3d-printz.at**  
*...hinterlässt EinDruck!*

Take-off weight: approx. 250 g  
Empty weight: approx. 160 g  
Wingspan: approx. 900 mm  
Profile: PW-RESMain  
CG: 31-33 mm

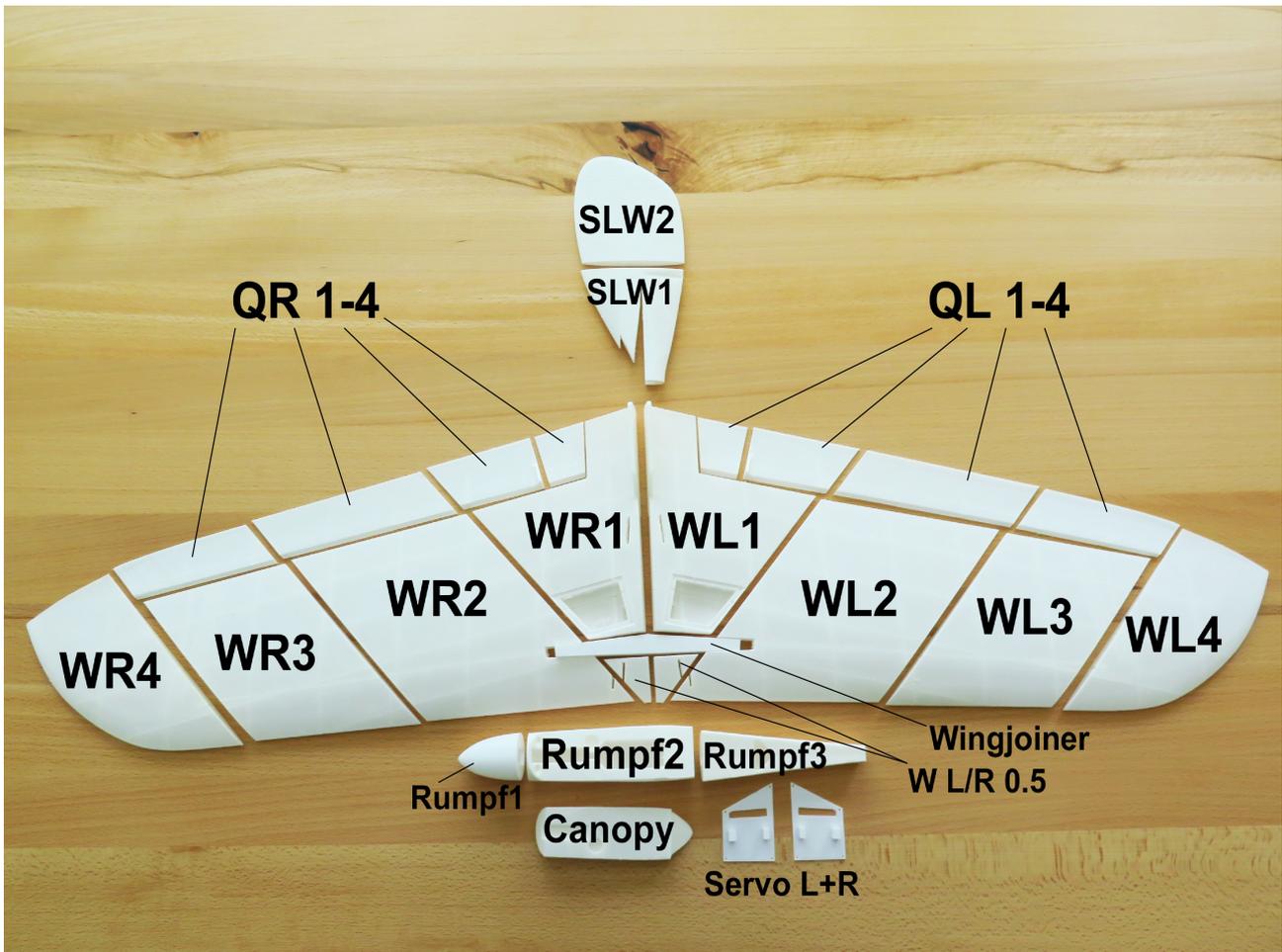


additional material:

RC system  
Piano wire for articulations  
8 pcs screws - 2x7mm (driver)  
Superglue super viscous & viscous  
Powertape for rudder attachment  
Cutter knife  
Sandpaper  
4mm carbon rod  
1mm-1.5mm carbon rod (leading edge)  
Trim lead (approx. 35g)

Foreword

The LouLou was developed as an alternative to its well-known, foam built rolemodel. The idea was to transfer the comfortable size, the unique optics and the brilliant flight characteristics into a 3D printable model and thus to create the first discus launchable 3d printed plane. The LouLou relies on a profile by Peter Wick and thus covers a wide range of speeds. Even if the final weight is a bit higher than the original, for the LouLou even the smallest breeze or a slight detachment is enough to stay in the air. The construction is designed for simple crash replacement - if you want, the wing segments can be joined together with Powertape and can be replaced individually in the event of a crash. The fuselage is also attached with adhesive tape - this means that individual parts can be easily replaced at any time. The removable stabilizer facilitates transport and the hood attachment by means of magnets avoids fiddly locking mechanisms. Long story short: the LouLou is the loyal companion for carefree flying! Have fun!



individual parts

First of all, please check whether all parts in your kit are present and intact. If you want you can paint the parts with standard acrylic paint before assembly. Try the paint first on the test part that comes with the kit.

### Construction:

In preparation, it makes sense to carefully deburr all edges with sandpaper and remove residues from the manufacturing process.



The end faces of the profile can also be easily roughened.



Then you can gently slide the individual wing segments WL2-4 and the "Wingjoiner" onto the 4mm carbon rod and then connect them with super glue (or with tape).

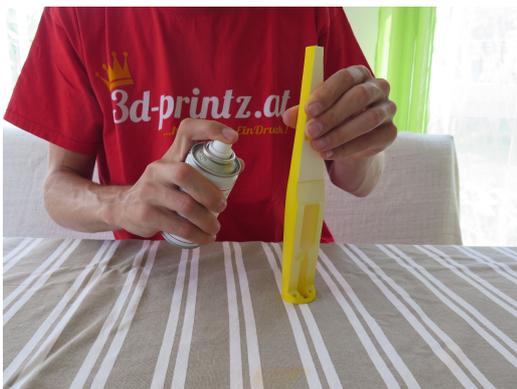
Use some activator to get a firm adhesive connection. Continue gluing parts WL0.5 and WL1. These are also



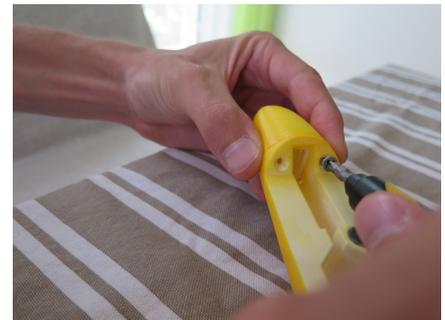
put together with superglue. Please make sure that all end faces are flush and that there is a firm bond. When using adhesive tape, make sure that the parts of the surface are pressed together as firmly as possible without damaging the parts.



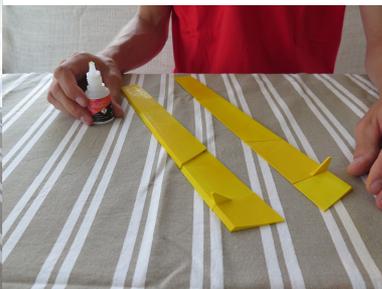
Now that the left half of the wing is finished, you can continue with parts WR1 and WR0.5, and then glue WR2-4. When everything has been glued so far, you can go on with the fuselage. The main parts of the fuselage (fuselage 2 + 3) are fixed with CA, while the ballast chamber (fuselage 1) is fastened with the provided



screws - so that weight can be easily added subsequently. Please proceed carefully when screwing in - the thread in fuselage 1 must first be cut with the screw - always screw the screw in 2 turns and then unscrew it again - until the screws have arrived in the recess. Don't use too much torque!

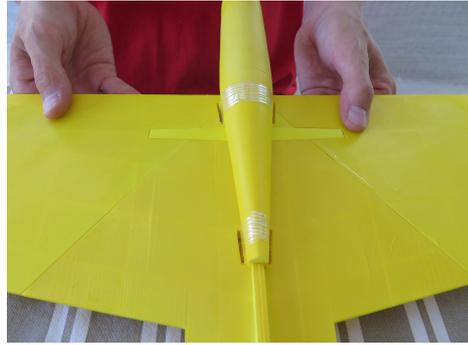


Now the stabilizer and ailerons follow, for this the parts SLW1 + 2 as well as QR and QL 1-4 are put together - here we recommend super glue in any case!



In order to connect the fuselage with the wing, there are a total of 4 recesses for adhesive tape strips. We recommend the use of filament adhesive tape - it is fiber-reinforced and extremely tear-resistant. Conventional powertape works just as well. The tape must first be cut to length and then threaded from the top to the bottom and then glued to the bottom of the hull. To facilitate the later installation of the RC system, it makes sense to thread the servo cables through the wings and fuselage.





After the fuselage has been glued, the rudders can be attached - these are fixed with adhesive tape hinges on the underside of the surface. After gluing in the holding magnets for the canopy - please pay attention to the polarity of the magnets! - The stabilizer can be pushed on. Please be careful when attaching, the fit is inherently very tight to ensure a good fit. If necessary, please sand down the contact surfaces until you can slide it all the way on (1mm gap between stabilizer and fuselage is absolutely ok).



## Deflections

With the recommended CG of 31mm behind the leading edge, we recommend the following rudder deflections:

Aileron: +11 / -5 mm

Elevator: +7 / -4 mm

Neutral: + 1.5mm

## Center of Gravity

The correct center of gravity is absolutely essential for good-natured flight behavior, especially with this type of aircraft, in our tests we determined this at about 31-33 mm behind the leading edge. Use this value as an initial value and slowly approach the optimum! The further back the center of gravity, the better the glide and rudder sensitivity, the further forward the more stable the LouLou flies.

Please note that the center of gravity and the deflections should be checked by the pilot himself for each LouLou built - the values mentioned here are only guidelines.

For the first flight, we recommend careful test throws in high grass. The Discus Launch technique should only be used if the CG is set perfectly.

**We wish you lots of fun!**