Before operating this unit, please read these instructions completely.

**Yak 54 EPP**

**Instruction Manual**

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**Features:**

EPP-YAK54 is a super aerobatic model for 3D aerobatic flying. Model is produced by modern technology on CNC machines from EPP “almost unbreakable” material. The flying time of EPP-YAK54 is between 8 to 15 minutes, it depends on the flying figures. The model is able to “torque roll” and then after giving more “gas” to rise vertically up, looping in “knife” flight and all aerobatic figures. It is very easy to land with the model, you are able to do it into your hand if you want like with handheld glider.

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**Product Specifications**

- Fuselage length: 925mm (36.4in.)
- Wingspan: 900mm (35.4in.)
- Flying Weight: 380-470g (with battery)
- Motor: 2212 KV 1400
- ESC: 20-30Amp
- Propeller: GWS 8040-9050
- Servo: 8-10g micro servo * 4pcs
- Radio: 4/more channel
- Battery: 11.1V 800-1200mAh Li-po 20C

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**Warning**

An R/C aircraft is not a toy! If misused, it can cause seriously harm and damage to property. Fly only in open areas, preferably AMA (Academy of Model Aeronautics) approved flying sites, following all instructions included with your radio. Always assume the electric motor can come on at any time some extreme caution. Before beginning assembly of your EPP-YAK54, we strongly suggest that you read through this instruction manual so you can become familiar with the parts and the assembly sequence. Assemble the kit according to the sequence provided in the instruction manual. Do not attempt to modify or change the kit design as doing so could adversely change the models flying characteristics.

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**Do not fly under the conditions below**

Wind strong enough to make the trees rustle
A street with many trees or street lamps
Close to high voltage electrical wires
High Population density areas

**Cautions for flying**

Large gyms, front lawns and parks make excellent flying areas. Make sure you have permission to fly and follow safety guidelines set by local authorities. The calmer the wind, the better!

**Note for Storage**

Please disconnect the lipo packs when finished flying
Do not press or crush the airplane when storing
The best way to store is to hang the airplane to keep the control surface rigid.
**Recommended Flying Setup**
Max servo travel of aileron: 30 degrees up and 30 degrees down (38mm)
Max servo travel of elevator: 60 degrees up and 60 degrees down (70mm)
Max servo travel of rudder: 65 degrees left and 65 degrees right (96mm)
**CG Position:**
80-95mm from the leading edge of the wing.

**The items below are required for assembly**

![Tools and equipment for assembly](image)

**Parts included in the packing**

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fuselage + Rudder (vertical tail)</td>
<td>1 pcs</td>
</tr>
<tr>
<td>2 Wing with aileron (right and left)</td>
<td>2 pcs</td>
</tr>
<tr>
<td>3 Elevator (stabilizer)</td>
<td>1 pcs</td>
</tr>
<tr>
<td>4 Landing gear</td>
<td>1 pcs</td>
</tr>
<tr>
<td>5 Wheel</td>
<td>2 pcs</td>
</tr>
<tr>
<td>6 Extension arm</td>
<td>2 pcs</td>
</tr>
<tr>
<td>7 Pushrod connector</td>
<td>4 pcs</td>
</tr>
<tr>
<td>8 Screw 3*10</td>
<td>4 pcs</td>
</tr>
<tr>
<td>9 Screw 2*3</td>
<td>2 pcs</td>
</tr>
<tr>
<td>10 Wheel pants</td>
<td>2 pcs</td>
</tr>
<tr>
<td>11 Plywood control horn</td>
<td>4 pcs</td>
</tr>
<tr>
<td>12 Bracing</td>
<td>1 pcs</td>
</tr>
<tr>
<td>13 Z-Bend 1.2 mm *220mm</td>
<td>4 pcs</td>
</tr>
<tr>
<td>14 Carbon rod 1.3 mm *190mm</td>
<td>2 pcs</td>
</tr>
<tr>
<td>15 Baidachin</td>
<td>4 pcs</td>
</tr>
</tbody>
</table>

1. Set the servo mount on the servo.

2. Glue the rudder servo mount on the around of pre-cut hole.

3. Fix the servo onto the servo arm by using 2 pcs screw. Please pay more attention to the servo wires when you fix the servo.
4. Connect the servo extension wire with the servo wire.

5. Use the hobby knife to cut a 10mm depth slot, make sure the servo wire to reach the receiver location.

6. As the picture shown, insert the servo wire into the pre-cut slot.

7. Use the same method to install the elevator servo as installing the rudder servo.

8. Install the left aileron servo.

9. Use the same method to install the right aileron servo.

10. Please use a hobby knife to cut a slot which is vertical to the servo arm, so that can install the servo control horn easily.
11. Glue the control horn by using the CA.

12. Increase the servo arm hole by using the aiguille, convenient for installing the pushrod connector.

13. Install the pushrod connector.

14. Install the Z-Bend, tighten the screws by using the screwdriver.

15. Use the pinchers to cut off the superfluous steel wire.

16. At the junction of the receiver and wing location, cut a hole, convenient for the aileron servo wire pass through easily.

17. Connect the left and right wing with 3 x 100 mm carbon rod, insert it into the wing slot.

18. Thread the servo wire through the hole till the receiver location.
19. Make sure A = B after installing the wing.

20. Glue the both sides of the joint of the wing and fuselage by using CA.

21. Insert the horizontal stabilizer into the fuselage slot using CA glue.

22. Use a knife to cut a slot, as the picture shown.

23. Glue the control horn using CA.

24. Glue the vertical stabilizer onto the fuselage.
25. Use a knife to cut a hole onto the rudder.

26. Glue the control horn by using CA.

27. Fix the servo extension arm onto the servo arm with screw.

28. Install the pushrod connector onto the extension arm.

29. Install the Z wire onto the pushrod connector, and then tighten the screw with screwdriver.

30. Center the rudder and elevator, and then tighten the servo arm.

31. Glue 2pcs of 1.3mm*190mm carbon rods onto the back of the horizontal stabilizer and the both sides of the under of the fuselage. To avoid the twisting of the horizontal stabilizer.

32. Use a knife to cut a slot under the fuselage.

33. Glue the tail wheel set into the fuselage slot.
34. Install the wheel and the wheel pant.

35. Insert the landing gear into the slot.

36. Install the motor into the motor mount, and then tighten them by using 4pcs screws.

37. Install the ESC on the right of the fuselage hole, and then tighten them with the band.

38. Use the knife to cut off the superfluous band.

39. Install the lipo battery pack, and then fix them with velcro.

40. There is a receiver location under the wing, connect the servo and ESC wire to the receiver. Then insert the receiver into the slot.

41. Fix the propeller with O-ring.
A perfect YAK54 3D-EPP is done after your careful assembly. While assembly, the flying weight is really critical to the flight performance and will be affected by adding weight, so you should reduce any unnecessary weight while assembly. Then you’ll get the best flying performance.