

Notes for safety:

1. This RC Heli model is not a slow moving toy. It has high force and highflying speed. Please fly it under the guidance of somebody experienced.
2. Please fly under safe conditions.
3. After switching on the electricity, the heli might shake strongly or out of control when affected by electronic waves. Such as, near the domestic electronic equipment, under high pressure environments, or if there is another remote controller using the same radio channel, or other unidentified waves. So remember to keep a safe distance from these conditions and people. Please be alert every minute you are operating this toy.
4. The battery used here might cause a fire in case of a short, dampness, bump, cracking and over loading.
5. This heli has a max rev. The max rev of the frame part is 3300rpm, and the max rev of main rotor, please look at the sign on the package. Please do not try to test it with the max rev. as in this situation the main rotor will be overloaded.
6. Please check and tighten the main rotor frequently, as it will be degraded with less intensity after fierce and high speed movement.
7. Please charge the battery according to the guideline, so as to prevent any danger.
8. The users should be responsible for their own actions, damage and injury caused during the operation process, if any.
9. The bearing could crack if the toy is crashed, you should check it carefully or change it directly.
10. If the rotation becomes unusual, please change the bearing immediately. When you do your flying, please check it every 3 hours and change it every 9 hours.
11. The speed should not exceed 3200RPM and the weight of the blade should not be over 20g. This is to avoid an out of balanced blade which can lead to damaged bearings. The high speed blade will have a very strong destructive ability, please use care.

XHH-360

KIT:

- Kit weight (W/O main blade): 217g
- RTF weight:: 600g
- Main rotor diameter: 655mm
- Main rotor specification: $305 \times 30\text{mm}$
- Flybar rod: $210 \times 1.5\text{mm}$
- Flybar rod specification: $58 \times 30\text{mm}$
- Tail rotor diameter: 110mm
- Tail rotor specification: $45 \times 18\text{mm}$
- Main shaft diameter: 4mm
- Tail rotor shaft diameter: 2mm
- Tail boom diameter (outer): 11mm
- Drive belt specification: 302MXL, width 2.5mm
- Main rotor:
 - Changeable screw distance
 - Adjustable mixing control;
 - Flybar in ball shape
 - Direct connected flybar control rod
- Revolving swash plate: ccpm120 degree
- Tail rotor blade: anti-shaking outer bearing in box shape
- Main drive gear: M0.4 180T
- Tail drive gear: M0.4 36T
- Speed ratio of main and tail drive gear: 1: 5.294
- Motor diameter limitation: 26mm
- 43 bearings on the whole kit

The whole heli is made of aluminum alloy, carbon fiber (XHH-360), and fiberglass (XHH-365) material and through CNC technology

Motor And Other Electronics:

A set of remote controller and receiver with over six channels(in support of ccpm120degree) (optional)

A set of motor, ESC and BEC4.8~6v (optional)

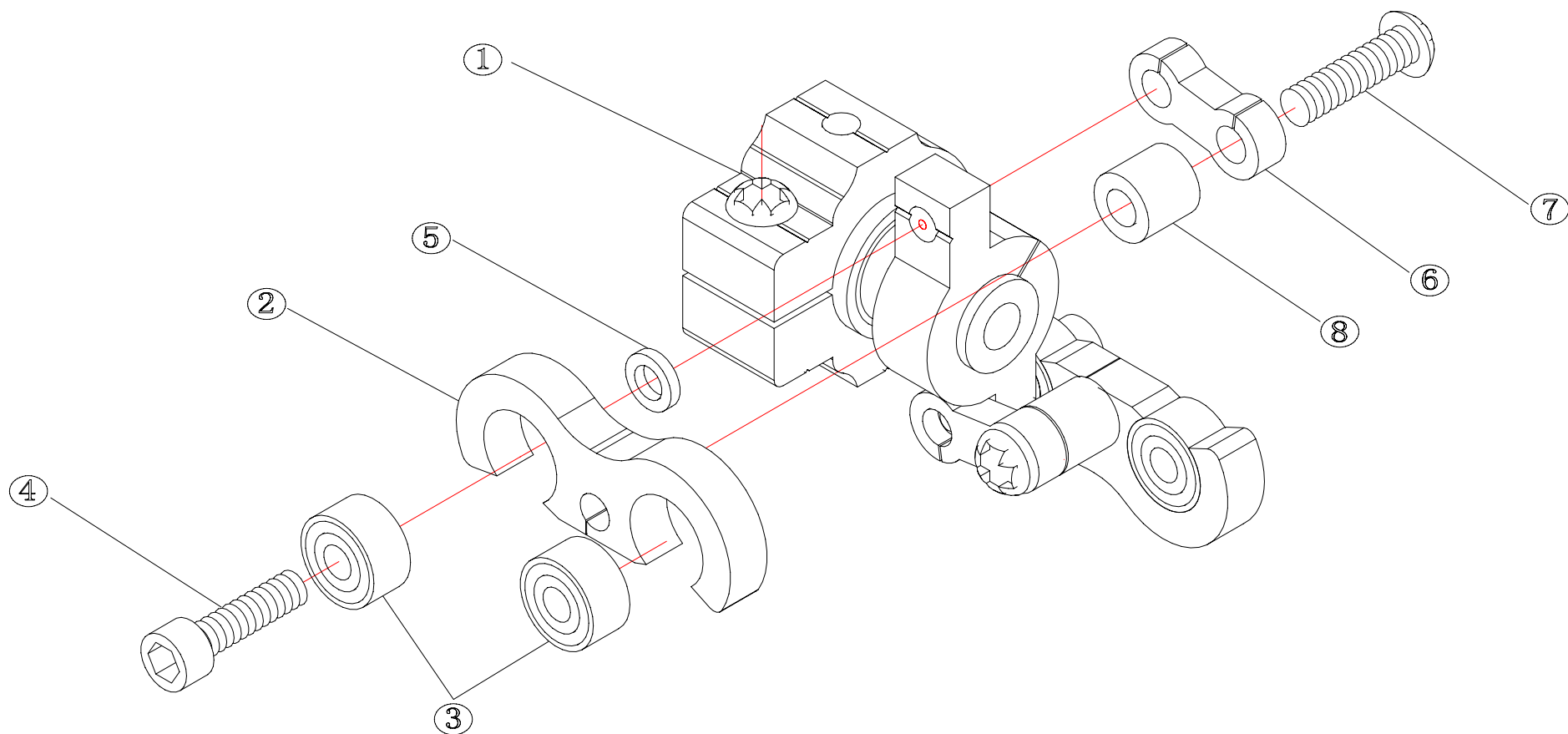
One or more batteries 11.1~14.8v (optional)

4 micro servos (optional)

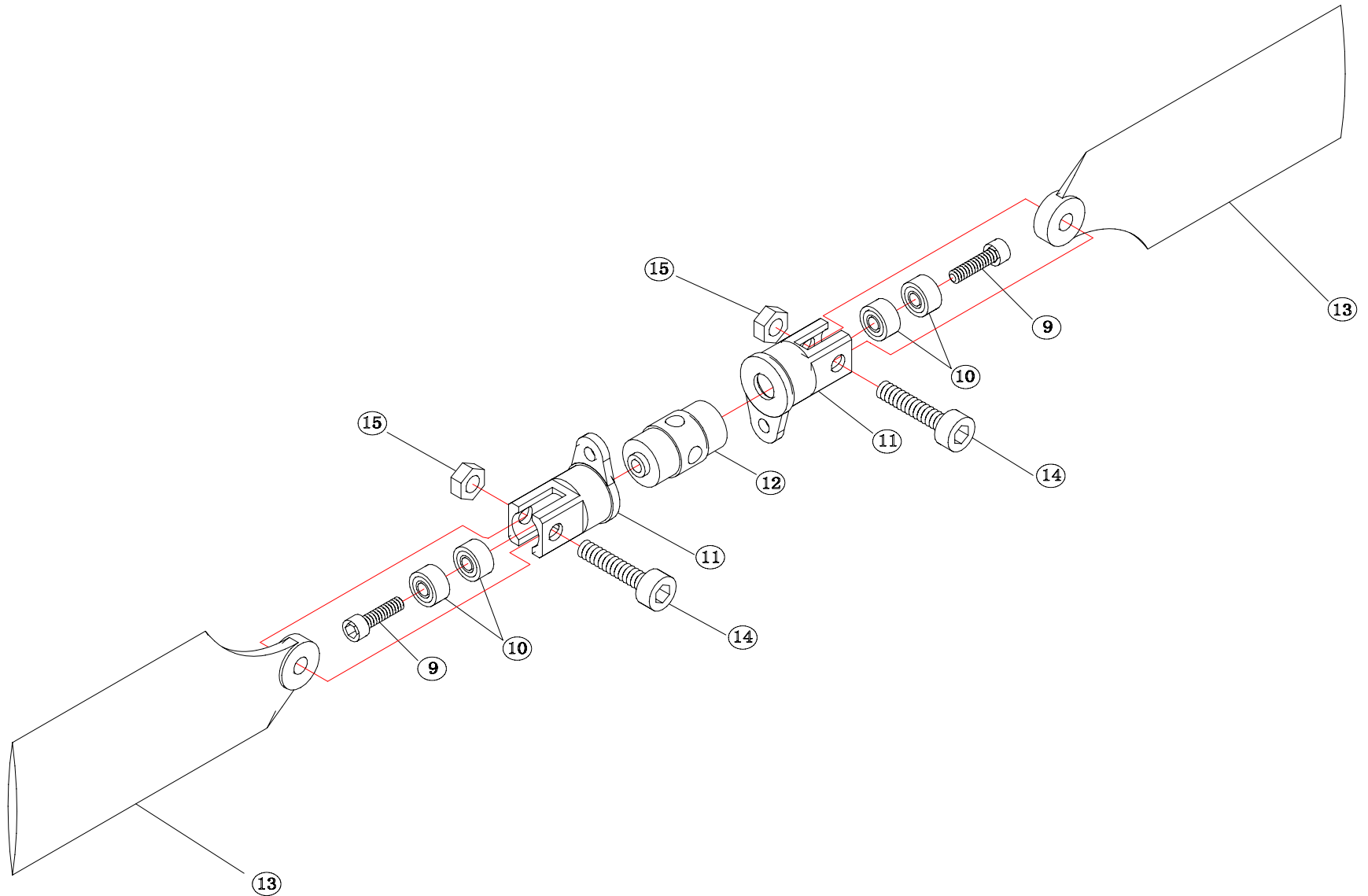
One gyro (optional)

One battery charger (optional)

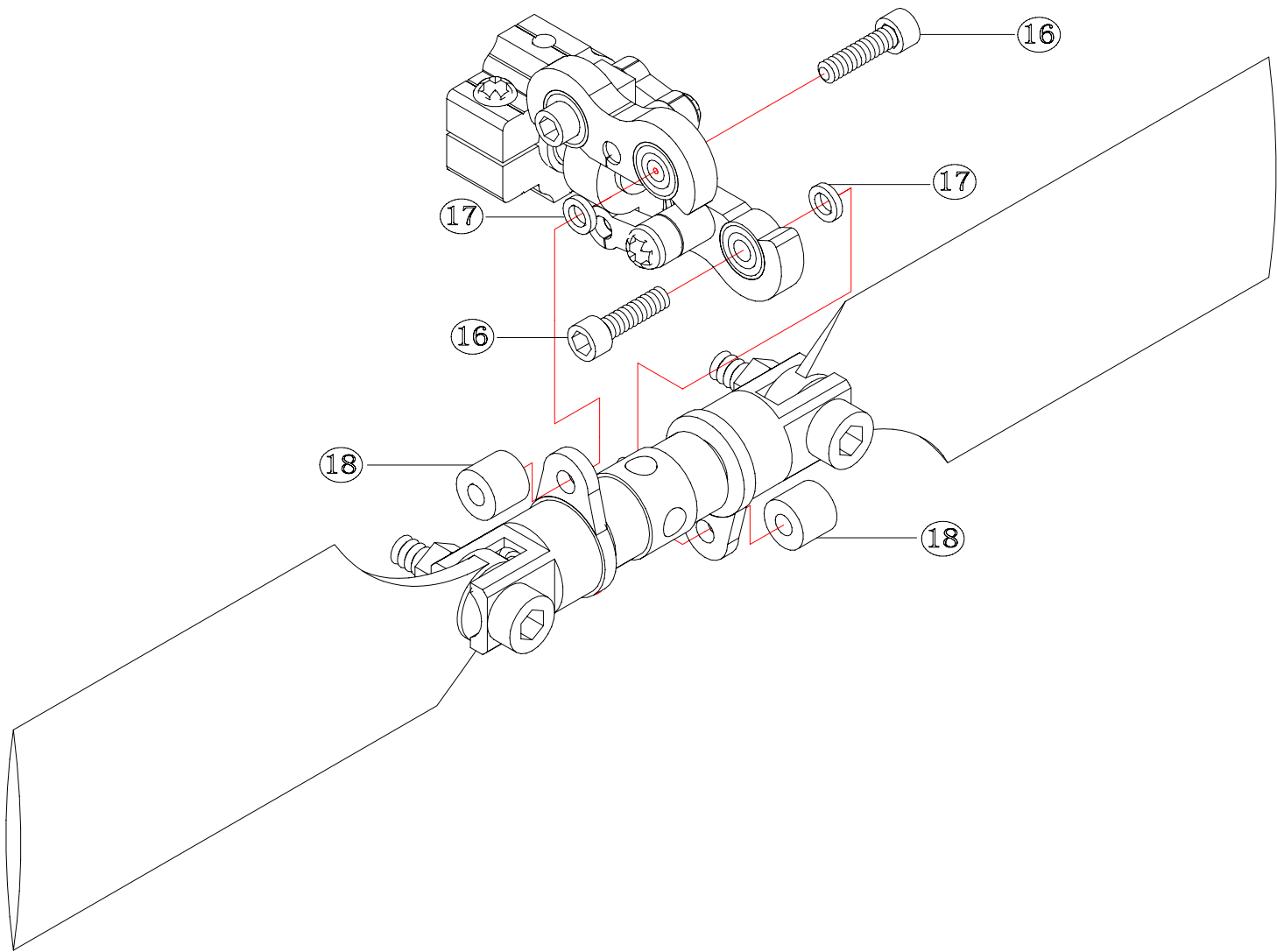
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
1	AL3016	Sliding shaft	1		5	AL3036	Underlay	2	$\varnothing 1.5 \times \varnothing 2.5 \times 0.5\text{mm}$
2	AL3018	Tail claw	2		6	AL3018	Safety botton	2	
3	XH10007	Bearing	4	$\varnothing 1.5 \times \varnothing 4 \times 2\text{mm}$	7	XH40001	Round head screw	2	M1.6 \times 6mm
4	XH20002	Cap screw	2	M1.5 \times 7mm	8	AL3018	Cushion tube	2	$\varnothing 1.6 \times \varnothing 3 \times 2.9\text{mm}$



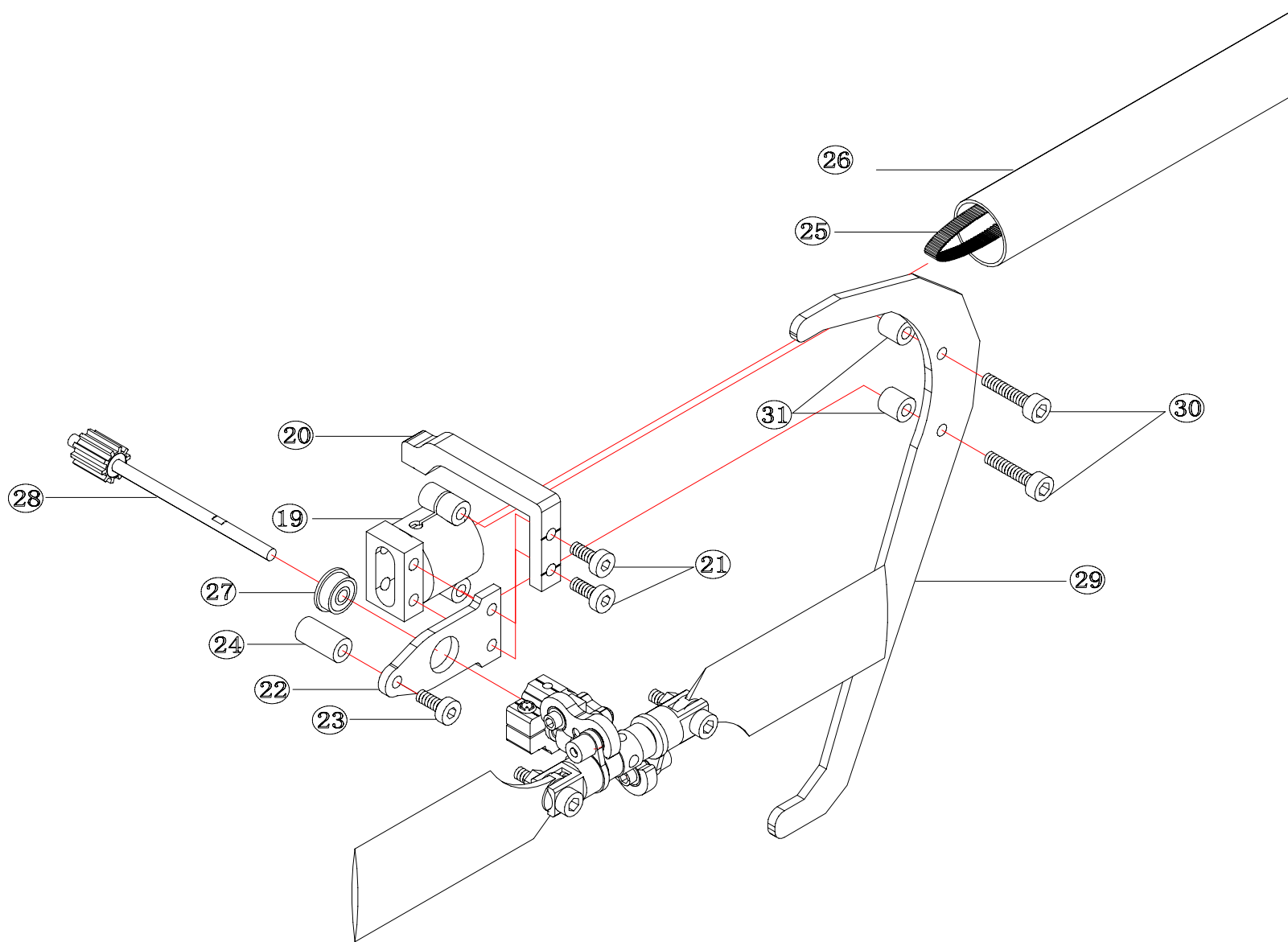
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
9	XH20002	Cap screw	2	M1.5×7mm	13	PL1006	Tail blade	2	
10	XH10007	Bearing	4	Ø1.5×Ø4×2mm	14	XH20004	Cap screw	2	M2×8mm
11	AL3019	Tail blade clamp	2		15	XH70001	Nut	2	M2
12	AL3020	Tail rotor head center	1						



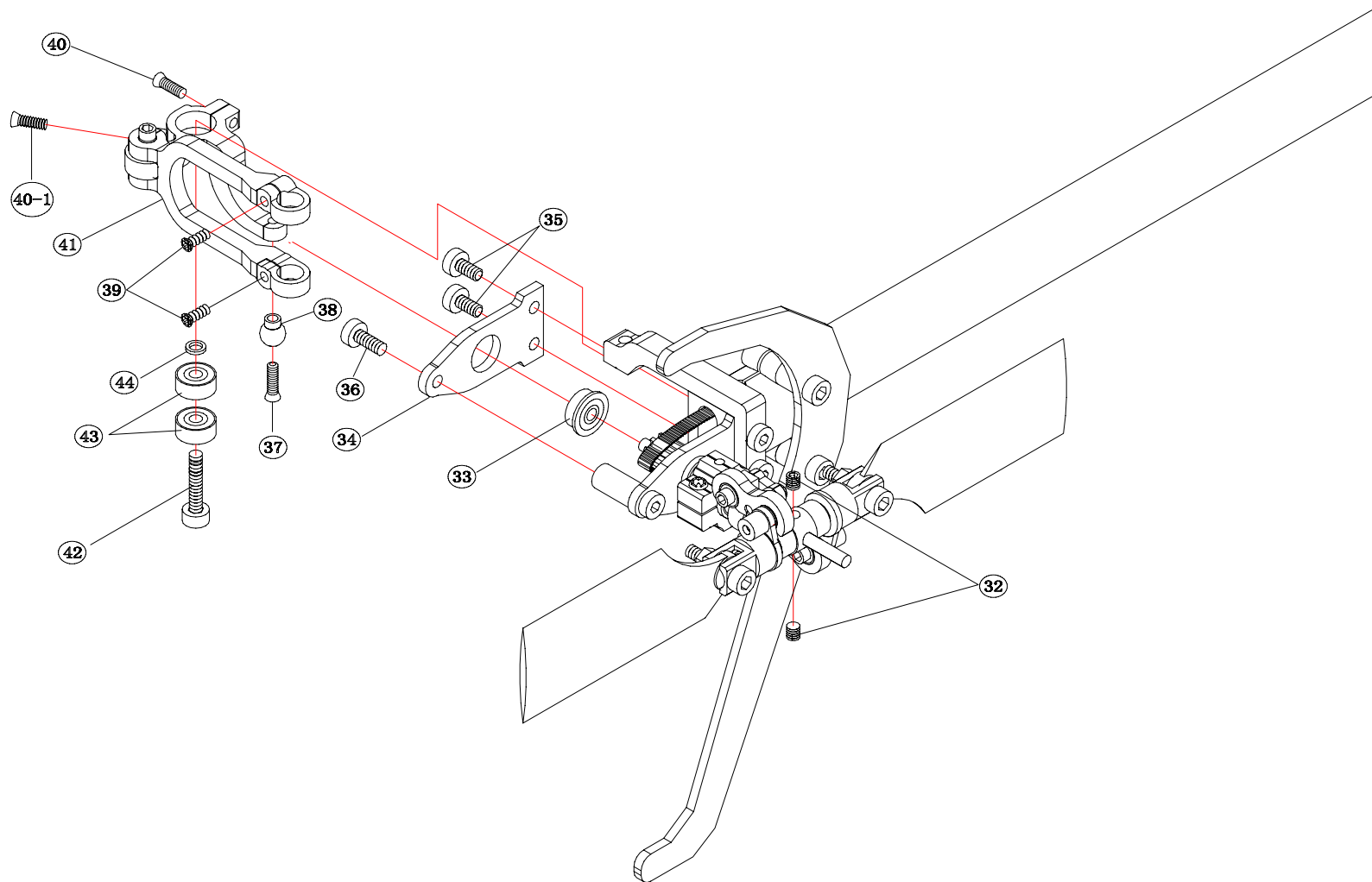
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
16	XH20002	Cap screw	2	M1.5×7mm	18	AL2042	Screw cap	2	Ø1.5×Ø3.5×3mm
17	AL3036	Underlay	2	Ø1.5×Ø2.5×0.5mm					



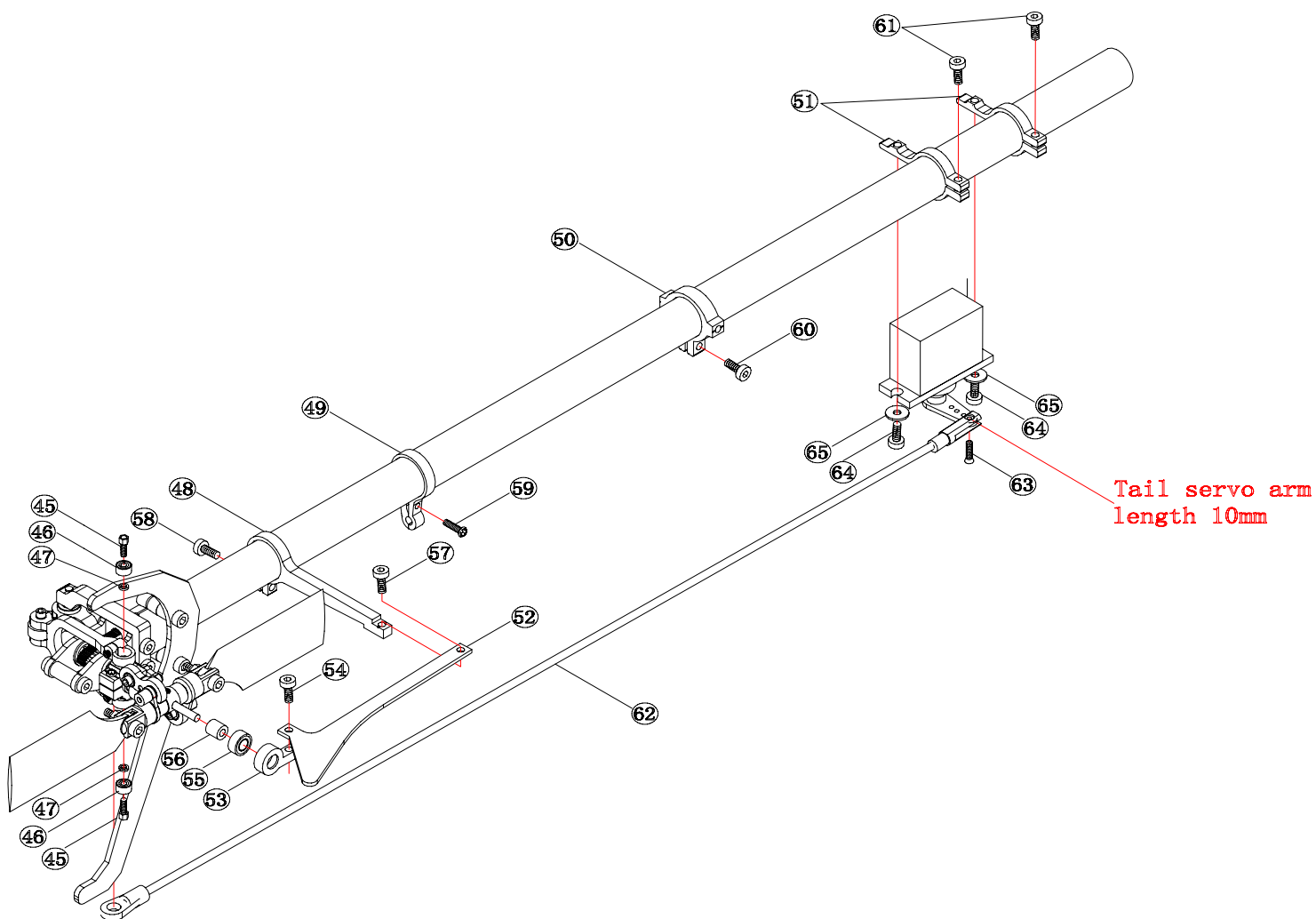
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
19	AL3017	Tail shaft housing	1		26	AL2044/CF2003	ALU/Carbonfiber tail boom	1	
20	AL3015	Adjusting tail mount	1		27	XH10005	Flange bearing	1	$\varnothing 2 \times 42\text{mm}$
21	XH20003	Cap screw	2	$M2 \times 5\text{mm}$	28	HS3006	Tail shaft on belt wheel	1	$\varnothing 1.5 \times \varnothing 3.5 \times 3\text{mm}$
22	FG3011-F/C	Fiberglasslateral (F) / Carbonfiber (C) plate	1		29	FG3004-F/C	Fiberglasslateral (F) / Carbonfiber (C) vertial paralle blade	1	
23	XH20003	Cap screw	1	$M2 \times 5\text{mm}$	30	XH20004	Cap screw	2	$M2 \times 12\text{mm}$
24	FG3011-F/C	Linkage tube	1	$\varnothing 2 \times \varnothing 4 \times 8\text{mm}$	31	FG3004-F/C	Vertial stabilizer cushion tube	2	$\varnothing 2 \times \varnothing 4 \times 4\text{mm}$
25	DB1001	Drive belt	1						



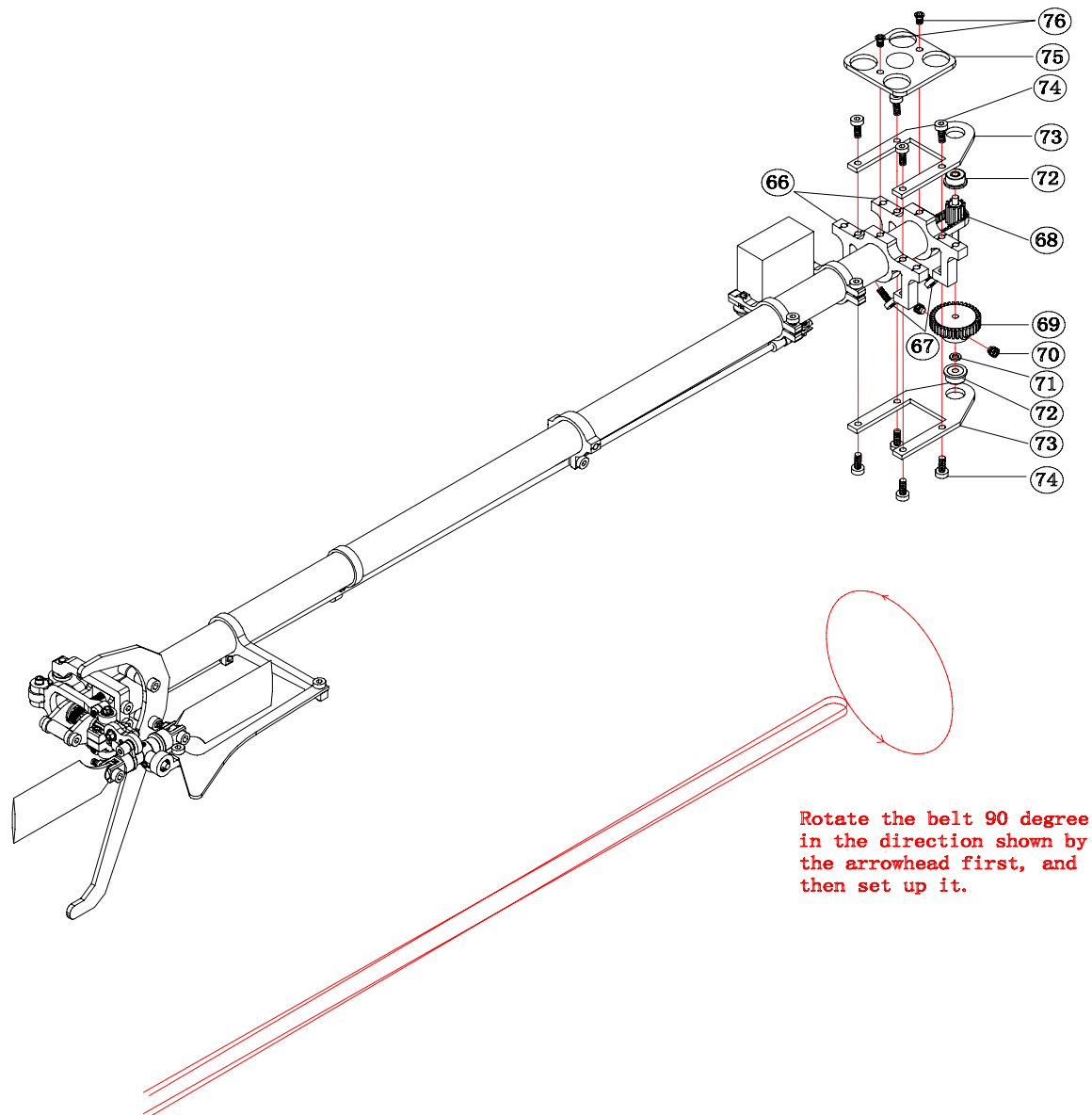
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
32	XH20007	Set screw	2	M2×2mm	39	XH30007	Countersunk screw	2	M1.6×5mm
33	XH10005	Flange bearing	1	Ø2×Ø6×2.5mm	40	XH30001	Countersunk screw	1	M1.6×4mm
34	FG3011-F/C	Fiberglasslateral (F) / Carbonfiber (C) lateral plate	1		40—1	XH30007	Countersunk screw	1	M1.6×5mm
35	XH20012	Cap screw	2	M2×4mm	41	AL3015	Tail torque converter	1	
36	XH20003	Cap screw	1	M2×5mm	42	XH20005	Cap screw	1	M2×10mm
37	XH30002	Countersunk screw	1	M1.6×6mm	43	XH10010	Bearing	2	Ø2×Ø6×2.5mm
38	AL1039	Ball link	1		44	AL3036	Underlay	1	M2

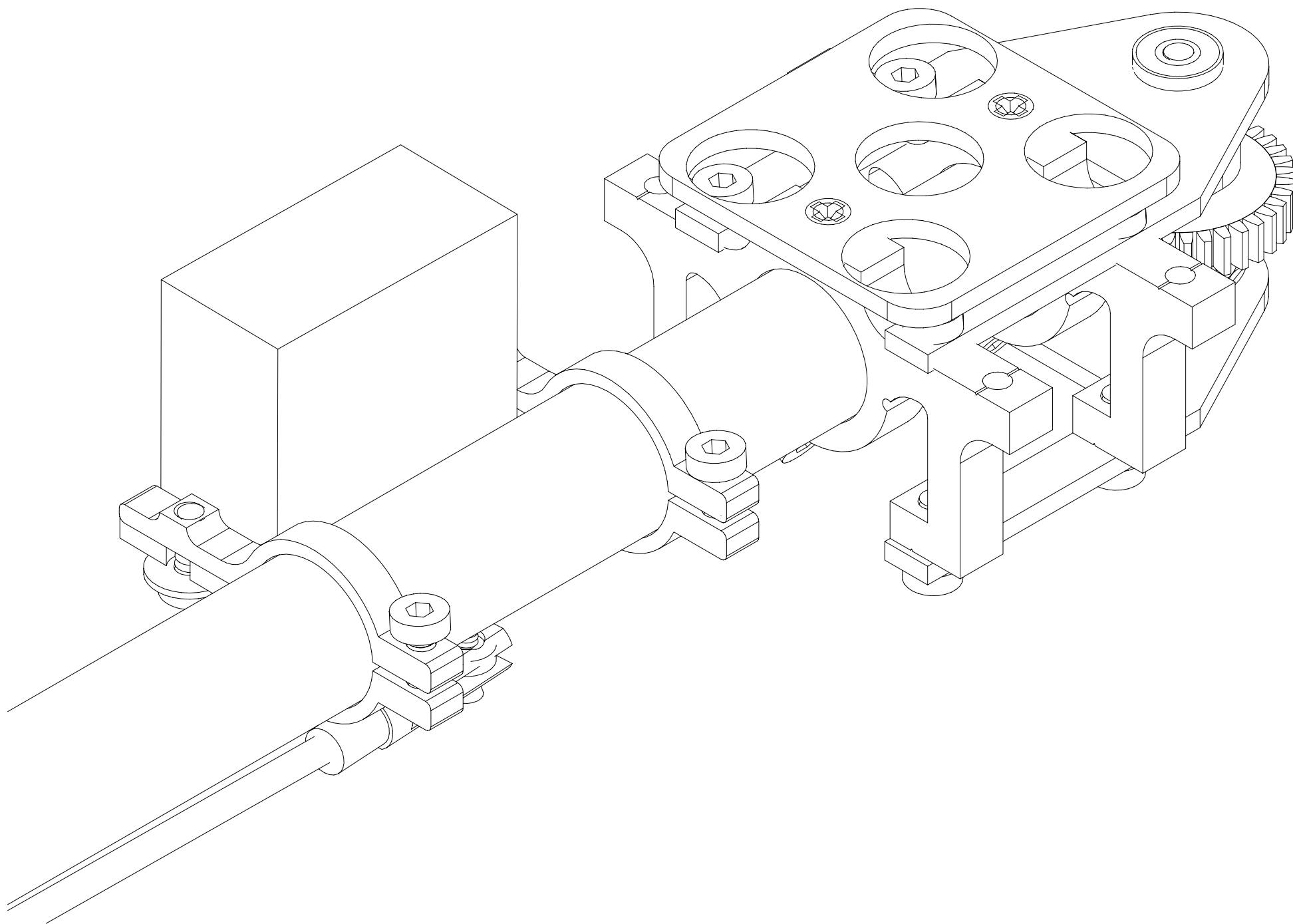


NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
45	XH20001	Cap screw	2	M1.5×4mm	56	AL3021	Tail shaft tube	1	Ø2×Ø4×4mm
46	XH10007	Bearing	2	Ø1.5×Ø4×2mm	57	XH20003	Cap screw	1	M2×5mm
47	AL3036	Underlay	2	Ø1.5×Ø2.5×0.5mm	58	XH20003	Cap screw	1	M2×5mm
48	AL3025	Horizontal stand	1		59	XH40002	Round head screw	1	M1.6×4mm
49	AL3024	Connecting rod rest	1		60	XH20003	Cap screw	1	M2×5mm
50	AL3023	Tail boom stand	1		61	XH20003	Cap screw	2	M2×5mm
51	AL3022	Tail servo mount	2		62	CF2002	Tail servo link	1	
52	FG1007-F/C	Fiberglasslateral (F) / Carbonfiber (C) Level blade	1		63	XH30002	Tstainless steel screw	1	M1.6×6mm
53	AL3021	Bearing stand of tail rotor shaft	1		64	XH20003	Cap screw	2	M2×5mm
54	XH20003	Cap screw	1	M2×5mm	65	AL30236	Underlay	2	M2.5
55	XH10010	Bearing	1	Ø2×Ø6×2.5mm					

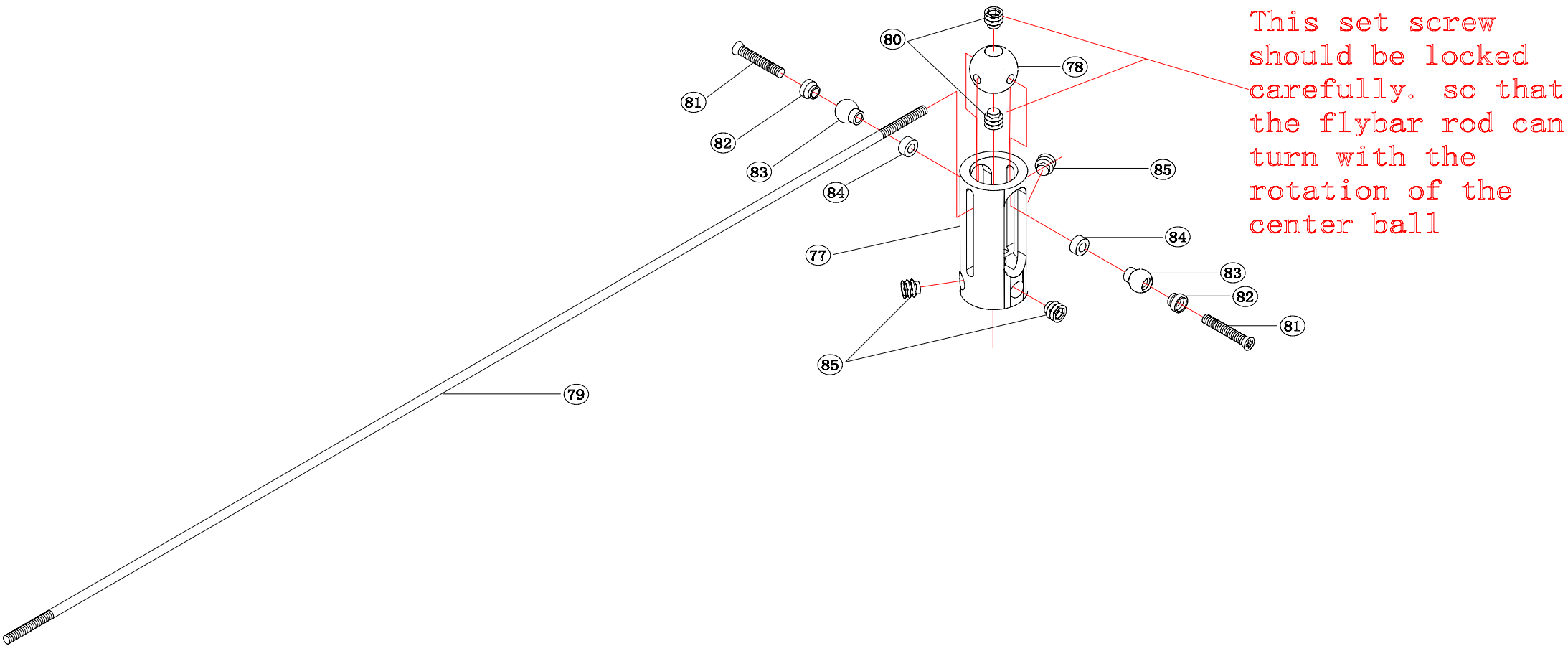


NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
66	AL3006	Tail boom link	2		72	XH10005	Flange bearing	2	Ø2×Ø6×2.5mm
67	XH20004	Cap screw	2	M2×8mm	73	FG3012-F/C	Fiberglasslateral (F) / Carbonfiber (C) Tail drive gear board	2	
68	HS3008	Front shaft belt wheel	1						
69	PL2003	Tail drive gear set	1		74	XH20003	Cap screw	8	M2×5mm
70	XH20009	Set screw	2	M3×3mm	75	FG3008-F/C	Fiberglasslateral (F) / Carbonfiber (C) Gyro board	1	
71	XH3036	Underlay	1	M2	76	XH30009	Countersunk screw	2	M2×3mm

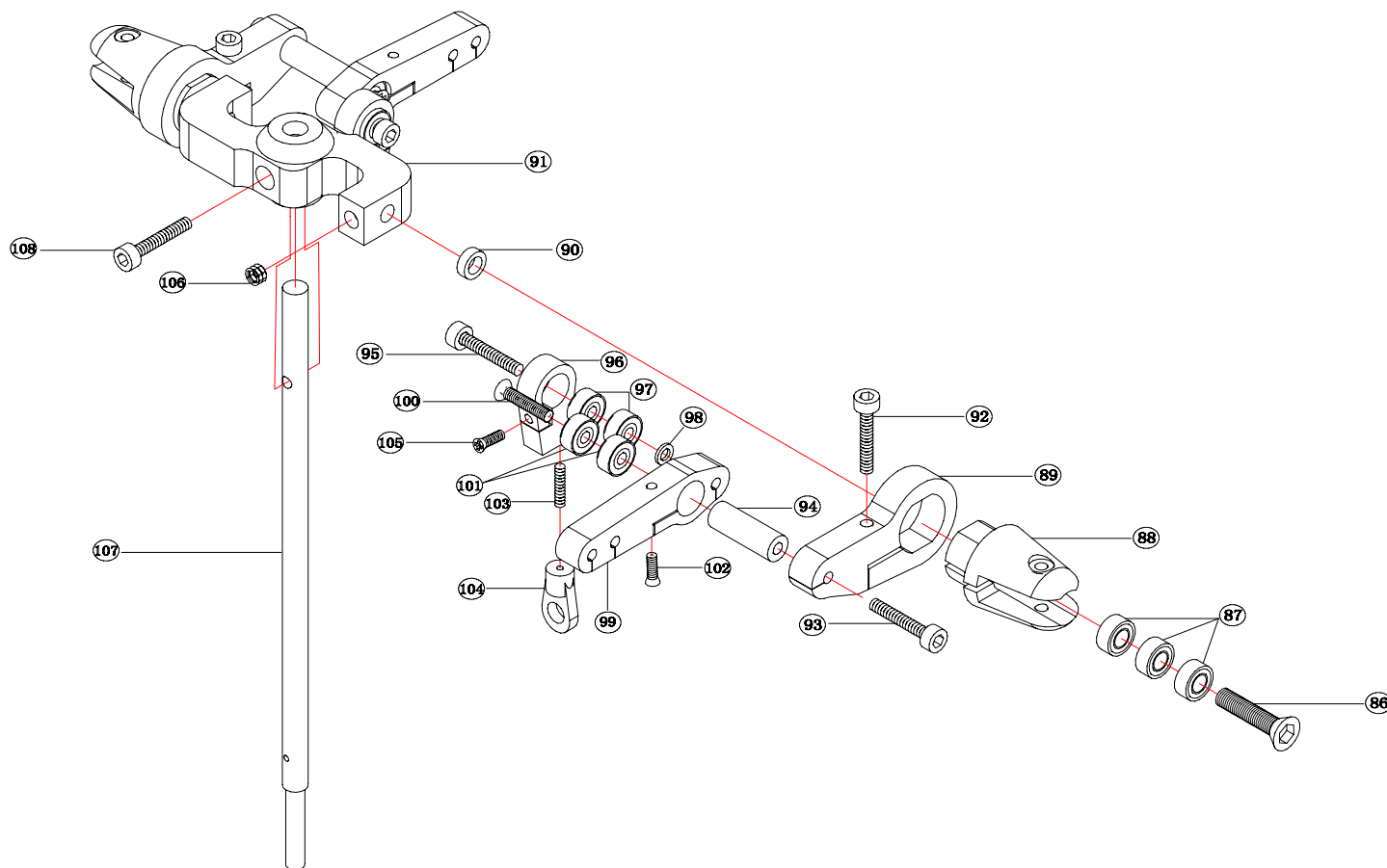


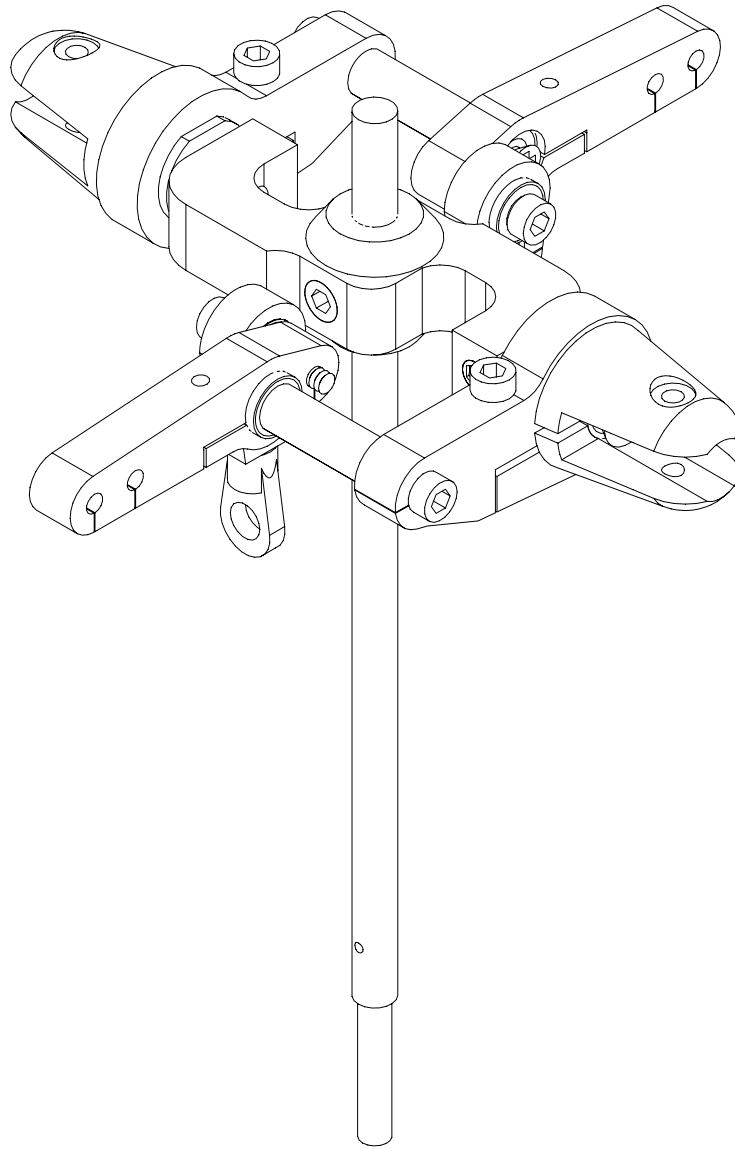


NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
77	AL3011	flybar stand	1		82	AL3037	linkage ball safety botton	2	M2
78	AL3012	flybar ball	1		83	AL1039	linkage ball	2	
79	HS1001	flybar rod	1	Ø1.5×210mm	84	AL3012	washer	2	Ø1.6×Ø3×1.4mm
80	XH20009	set screw	2	M3×3mm	85	XH20009	set screw	3	M3×3mm
81	XH30006	countersunk screw	2	M1.6×10mm					

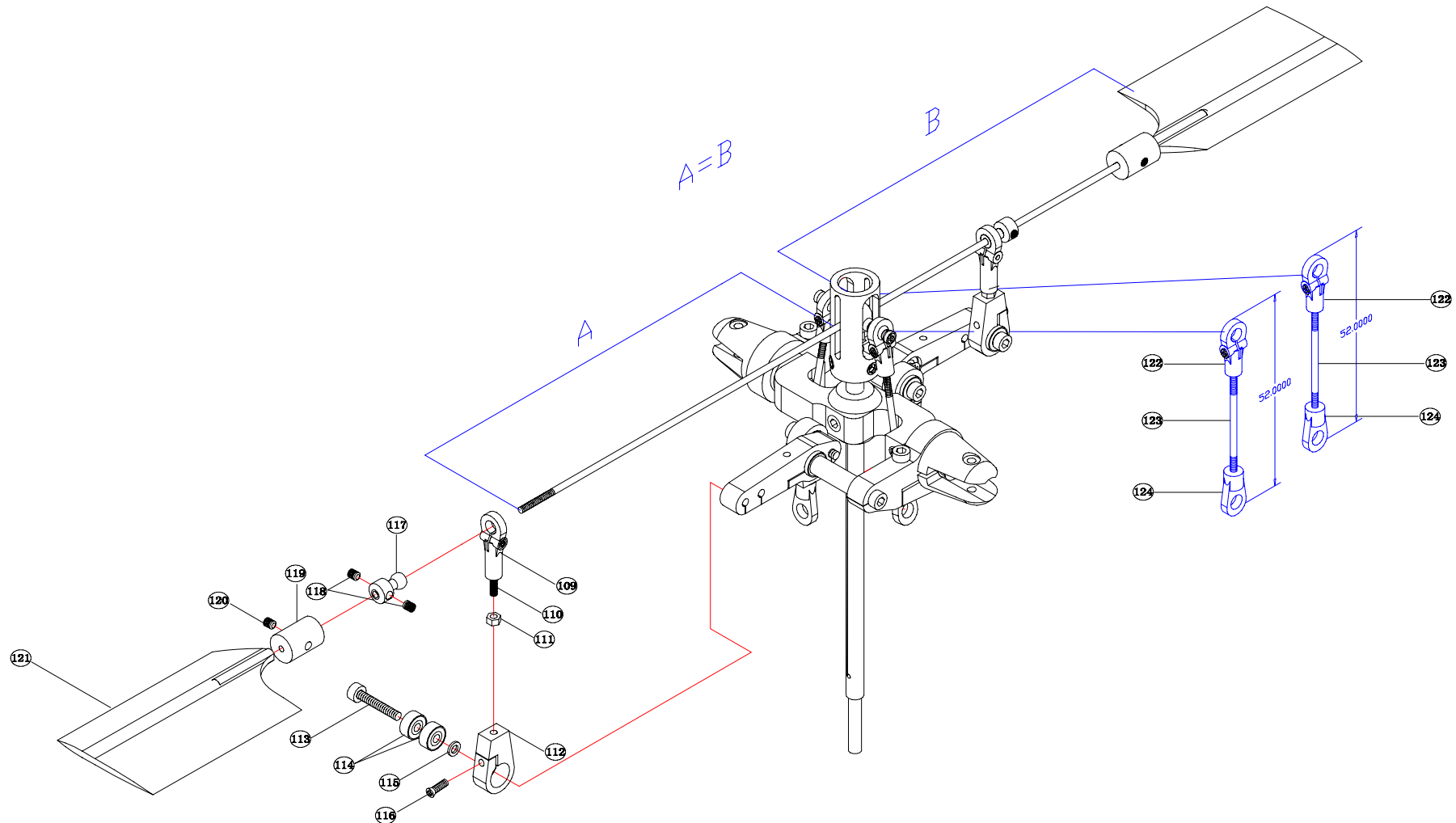


NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
86	HS3003	Feathering shaft screw	2	M3×16mm	98	AL3036	Underlay	2	Ø2×Ø3.5×0.5mm
87	XH10008	Bearing	6	Ø3×Ø6×2.5mm	99	AL3013	Mixing arm	2	
88	AL3007	Main blade clincher	2		100	XH30006	Countersunk screw	2	M2×10mm
89	AL3008	Main blade clincher arm	2		101	XH10010	Bearing	4	Ø2×Ø6×2.5mm
90	HS3004	Stainless steel masher	2	Ø3×Ø5×1.5mm	102	XH40001	Round head screw	2	M1.6×6mm
91	AL3010	Main rotor head center	1		103	HS1007	Linkage rod	2	M1.6×7mm
92	XH20005	Cap screw	2	M2×10mm	104	PL1010	Ball link	2	H11mm
93	XH20005	Cap screw	2	M2×10mm	105	XH40001	Round head screw	2	M1.6×6mm
94	AL3009	Main blade clincher link	2	Ø2×Ø4×13mm	106	XH20009	Set screw	2	M3×3mm
95	XH20005	Cap screw	2	M2×10mm	107	HS1002	Main shaft	1	Ø4×109mm
96	AL3004	Mixing linkage rod subassembly	2		108	XH20005	Cap screw	1	M2×10mm
97	XH10010	Bearing	4	Ø2×Ø6×2.5mm					

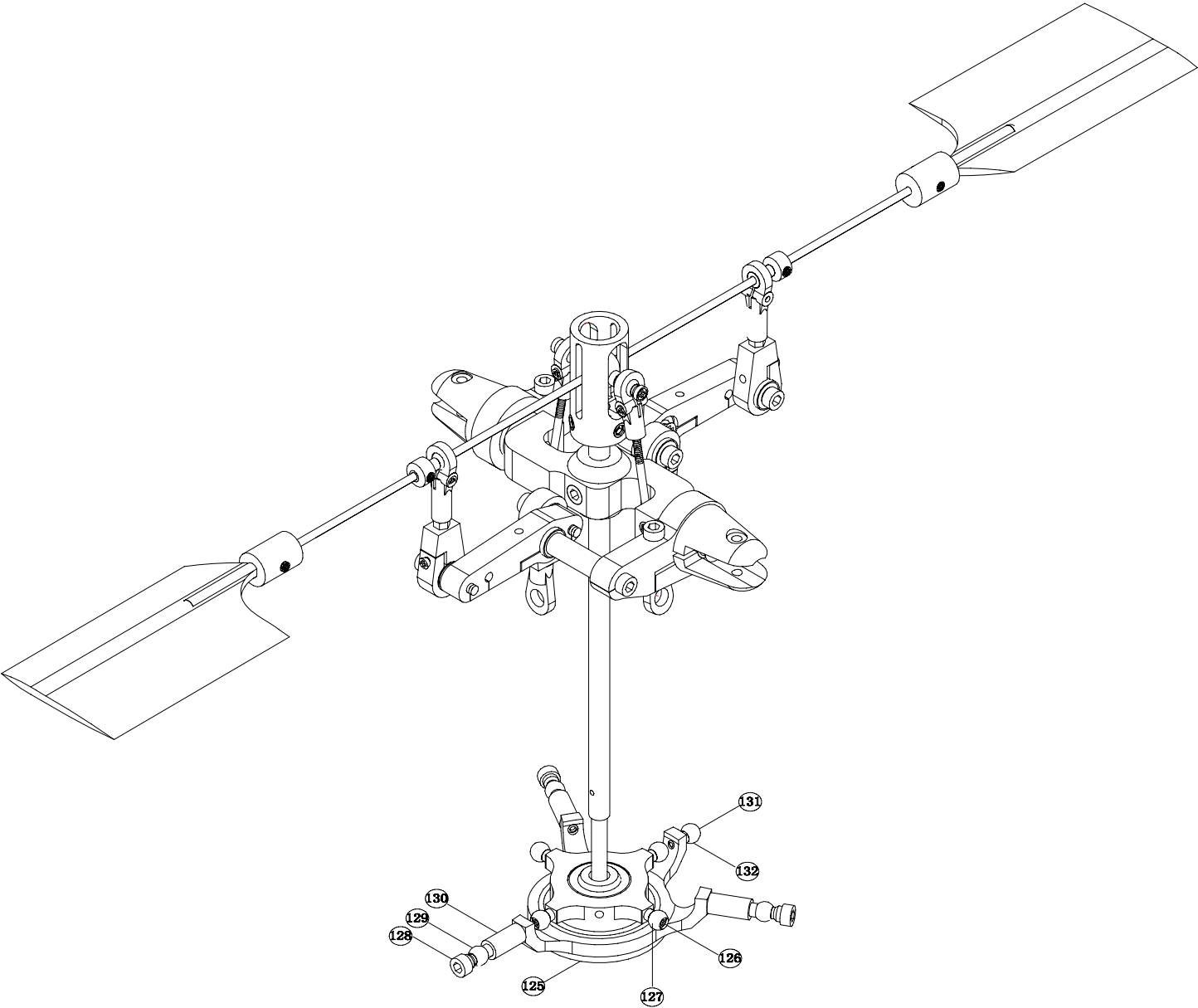




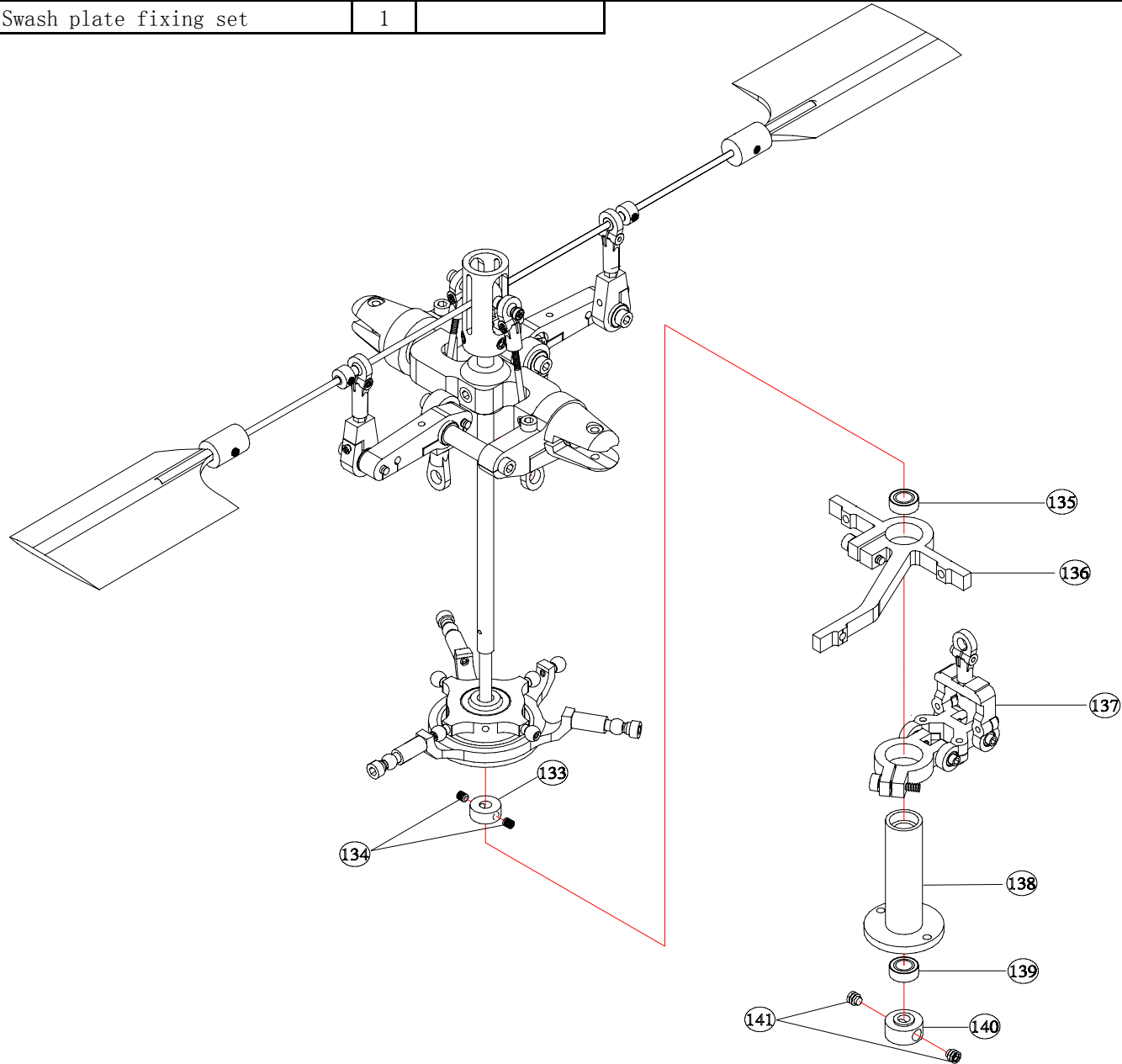
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
109	PL1009T	Adjustable ball link	2	H17.5mm	117	TB0025	Flybar linkage ball	2	
110	HS1005	Linkage rod	2	$\varnothing 1.6 \times 10\text{mm}$	118	XH20007	Set screw	4	M2 \times 2mm
111	XH70002	Nut	2	M1.6	119	C01001	Copper ingot	2	
112	AL3004	Mixing linkage rod subassembly	2		120	XH20007	Set screw	2	M2 \times 2mm
113	XH20005	Cap screw	2	M2 \times 10mm	121	PL1007	Playbar paddel	2	M1.6 \times 7mm
114	XH10010	Bearing	4	$\varnothing 2 \times \varnothing 6 \times 2.5\text{mm}$	122	PL1008T	Adjustable ball link	2	H13.5mm
115	AL3036	Underlay	2	$\varnothing 2 \times \varnothing 3.5 \times 0.5\text{mm}$	123	HS1005	Linkage rod	2	$\varnothing 1.5 \times 35\text{mm}$
116	XH40001	Round head screw	2	M1.6 \times 6mm	124	PL1010	Ball link	2	H11mm

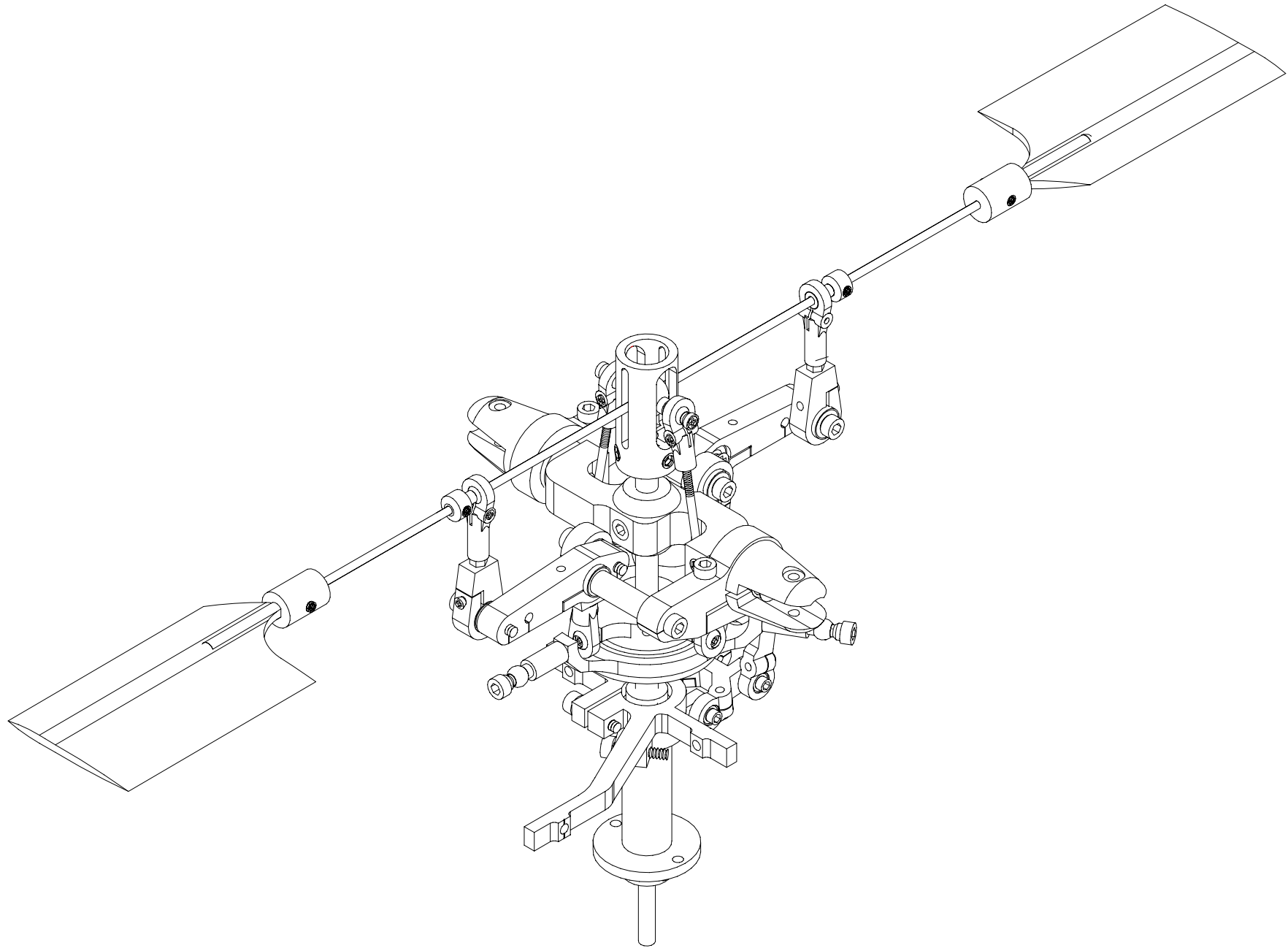


NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
125	AL3014	swash plate	1		129	AL1039	ball link	3	
126	XH30002	countersunk screw	4	Ø1.6×6mm	130	AL3014	swash plate washer	3	Ø2×Ø4×8mm
127	AL1039	ball link	4		131	XH30002	countersunk screw	1	Ø1.6×6mm
128	XH20006	cap screw	3	M2×16mm	132	AL1039	ball link	1	

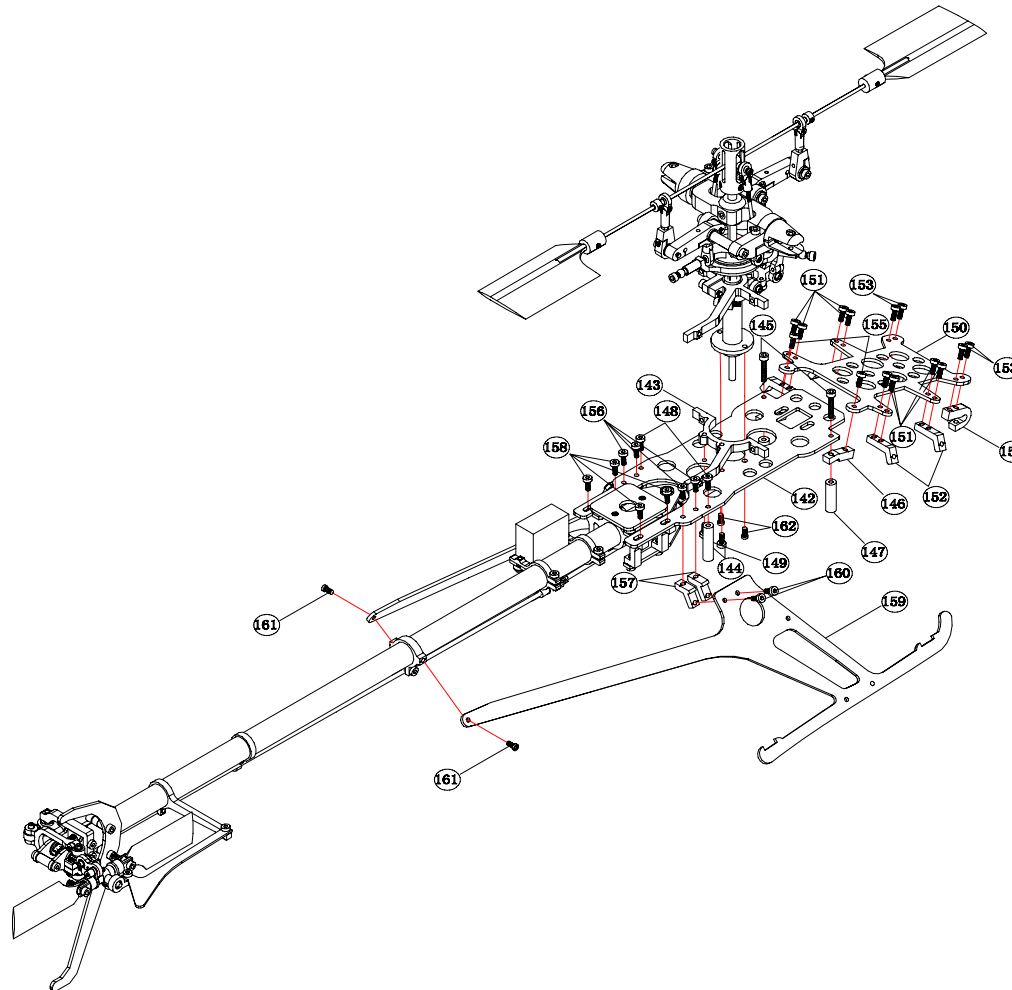


NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
133	AL1040	Main shaft fixing	1		138	AL3005	Main shaft stand	1	
134	XH20007	Set screw	2	M2×2mm	139	XH10003	Bearing	1	Ø4×Ø7×2.5mm
135	XH10003	Bearing	1	Ø4×Ø7×2.5mm	140	AL2035	Main shaft fixing (underside)	1	
136	AL3002	Up servo mount	1		141	XH20007	Set screw	2	M2×2mm
137	AL3001	Swash plate fixing set	1						

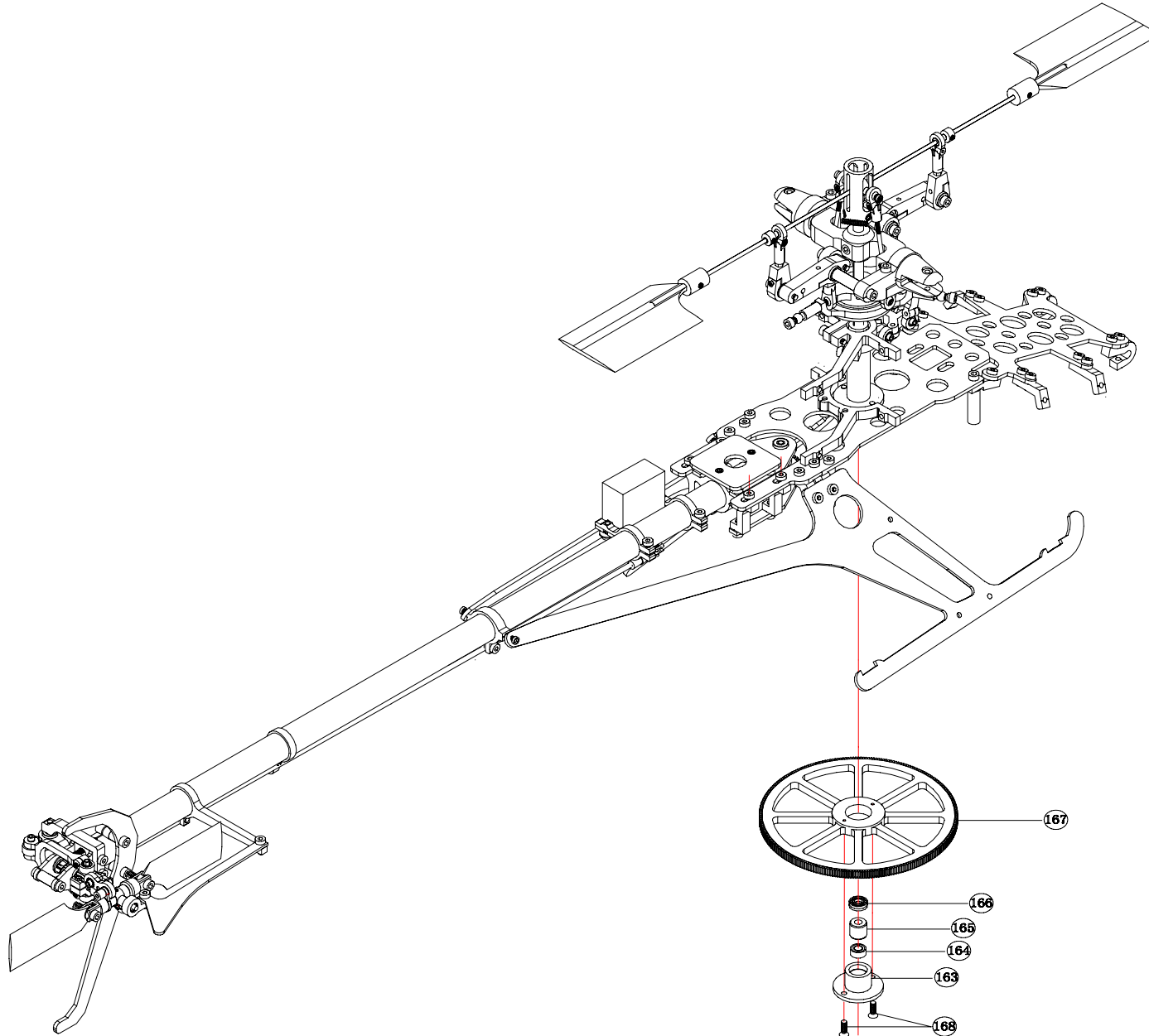




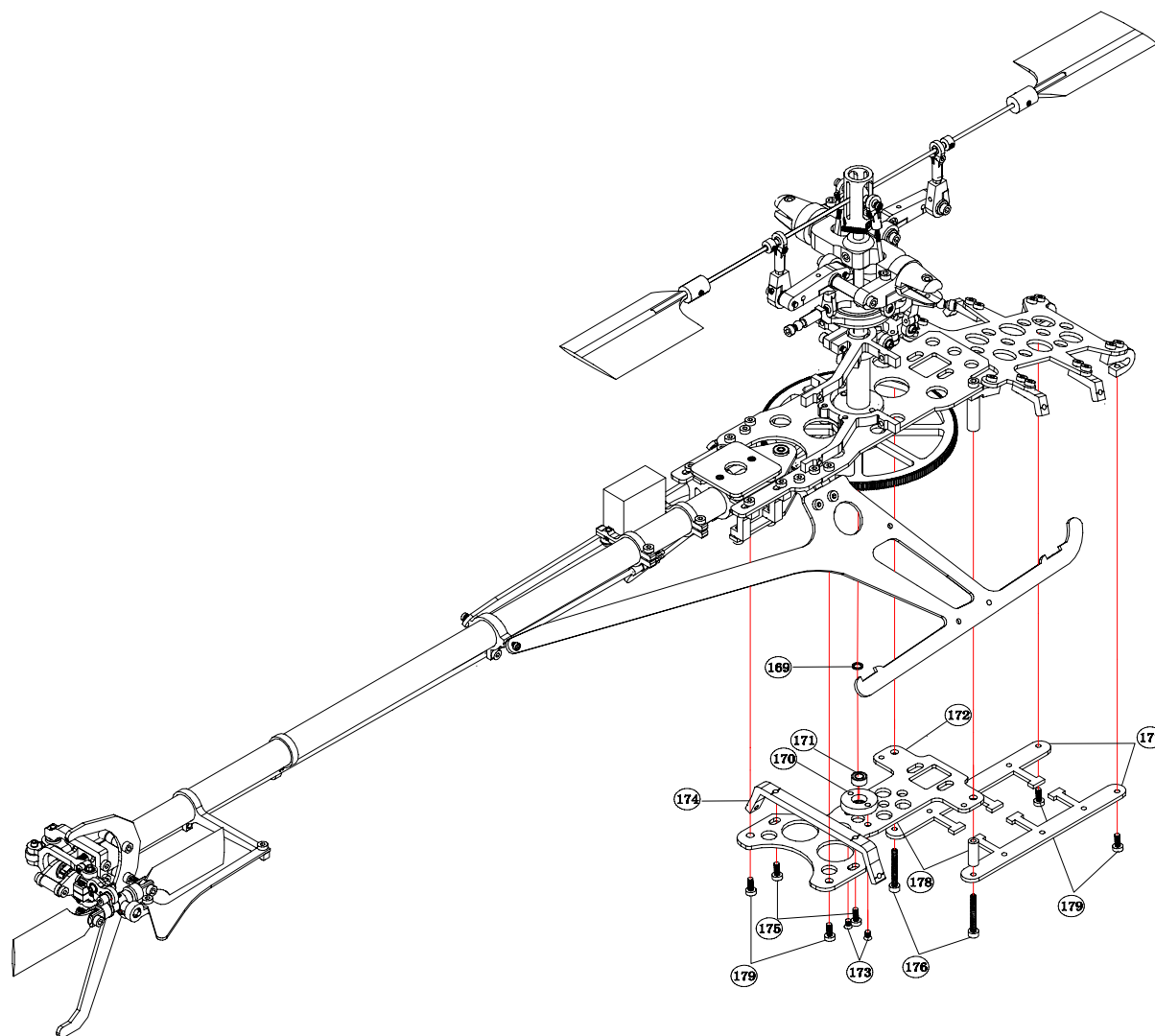
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
142	FG3001-F/C	Fiberglasslateral (F) / Carbonfiber (C) board over main frame	1		152	AL3029	Canopy device	4	
143	AL3003	Down servo mount	1		153	XH20003	Cap screw	4	M2×5mm
144	XH20003	Cap screw	2	M2×5mm	154	AL3031	Battery board front link	2	
145	XH20004	Cap screw	2	M2×8mm	155	XH20003	Cap screw	2	M2×5mm
146	AL3030	Feathering shaft screw	2		156	XH20003	Cap screw	4	M2×5mm
147	AL3034	Front frame board washer	2	Ø2×Ø4.5×15mm	157	AL3032	Landing skid link	4	
148	XH20003	Cap screw	2	M2×5mm	158	XH20003	Cap screw	4	M2×5mm
149	AL3033	Back frame board washer			159	FG3003-F/C	Fiberglasslateral (F) / Carbonfiber (C) landing skid link	2	
150	FG3006-F/C	Fiberglasslateral (F) / Carbonfiber (C) battery board	1		160	XH20003	Cap screw	4	M2×5mm
151	XH20003	Cap screw	8	M2×5mm	161	XH20012	Cap screw	2	M2×4mm
					162	XH20012	Cap screw	2	M2×4mm



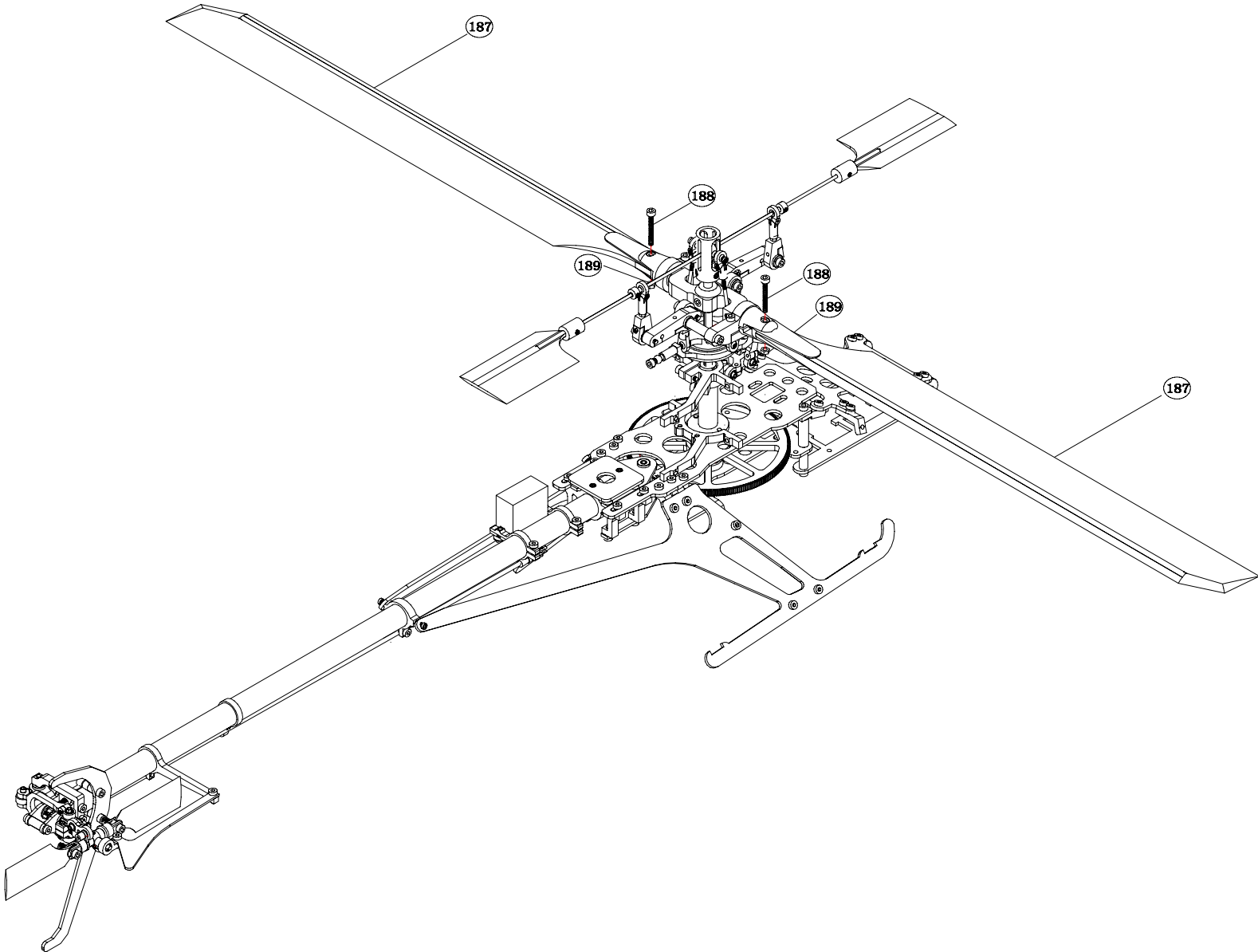
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
163	AL3026	One-way bearing stand	1		166	XH10009	Bearing	1	$\varnothing 3 \times \varnothing 7 \times 2\text{mm}$
164	XH10008	Bearing	1	$\varnothing 3 \times \varnothing 6 \times 2.5\text{mm}$	167	PL1005	Main drive gaer	1	
165	XH10001	One-way bearing	1	$\varnothing 3 \times \varnothing 6.5 \times 6\text{mm}$	168	XH30004	Countersuk screw	2	M2 \times 6mm



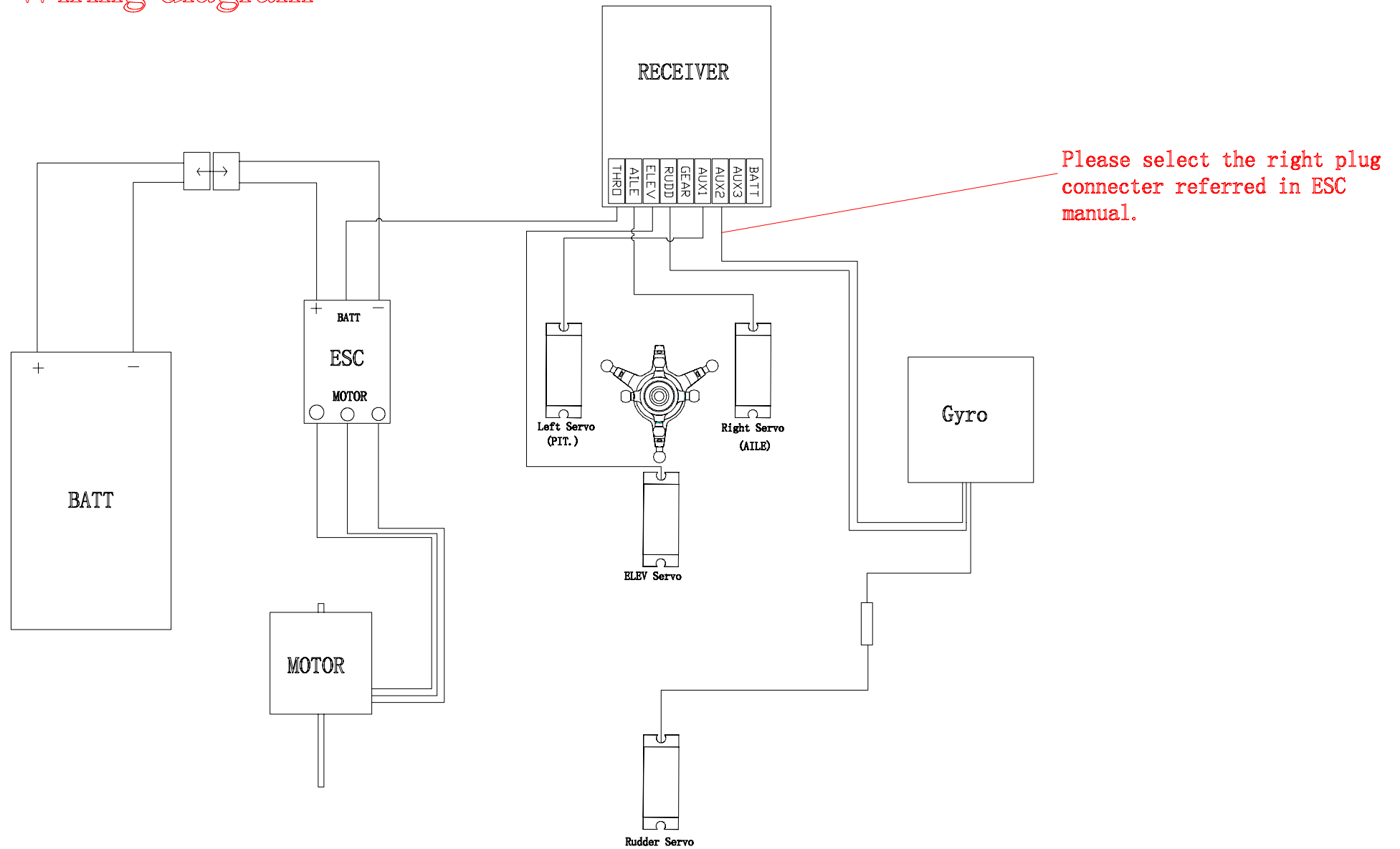
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
169	AL3036	Underlay	1	M3	178	AL3035	Down front board washer	2	Ø2×Ø4×10mm
170	AL3027	Bearing tand under main shaft	1		179	XH20003	Cap screw	4	M2×5mm
171	XH10008	Bearing	1	Ø3×Ø6×2.5mm	180	XH20005	Cap screw	2	M2×10mm
172	FG3002-F/C	Fiberglasslateral (F) / Carbonfiber (C) board under main frame	1		181	FG3010-F/C	Fiberglasslateral (F) / Carbonfiber (C) strengthen landing skid board-2	2	
173	XH30009	Countersuk screw	2	M2×3mm	182	XH70002	Nut	2	M2
174	AL3028	Beam	1		183	XH20004	Cap screw	2	M2×8mm
175	XH20003	Cap screw	2	M2×5mm	184	FG3009-F/C	Fiberglasslateral (F) / Carbonfiber (C) strengthen landing skid board-1	2	
176	XH20006	Cap screw	2	M2×16mm					
177	FG3005-F/C	Fiberglasslateral (F) / Carbonfiber (C) down-front board	2		185	XH20003	Cap screw	4	M2×5mm
					186	XH70002	Nut	4	M2



NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
187	CF2001	Carbonfiber main blade	2		189	XH70001	Nut	2	M2
188	XH20011	Cap screw	2	M2×12mm					



Wiring diagram



The setting of transmitter and servo

I 1) . Unplug the motor’s tie-in before switching on the electricity to ensure the motor will not work after electrifying.
2) . Demount the four servo arms.

↓

II Switch on the transmitter, and choose the ccpm120 mode.

(SWASH TYP)

3servos

120°

↓

III Switch on the transmitter and the heli’s battery electricity. Don’t move the heli until the gyro opening program is finished. And then turn off the electricity. Then, the servo is in its central position

↓

IV Join the servo arms and the linkage rods. Move the servo mount to (1) Make sure the angle between the linkage rod and servo arm is 90 degree (2) Make sure the angle between the linkage and the angle-adjusting device is 90 degree.
(3) Make sure the tail rotor is in such a state, where the angle of attack of the balancing counterforce is 3-5 degree (that is, when the tail rotor is rotating, the thrust of the tail rotor and the main rotor’s rotating are in the same direction) Please refer to the illustration one and two.

↓

V Turn on the transmitter, and the electricity on the heli.(before the adjustment has been finished, do not wire the motor. Switch on the servos.
(1) Check whether the right and left tail blades are at the same angle. You can move central connector of tail rotor to adjust them at the same angle (after this, you should repeat all the actions in the last steps to make the joints at 90 degree). (2)when push the servo to its full capability, you must leave some space in the tail-adjusting device(otherwise, it can not work normally and life span will be reduced). And adjust the flying capacity on the gyro and transmitter.

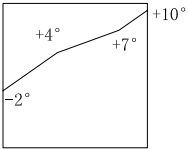
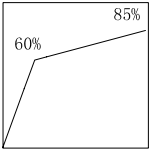
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VI Switch on the transmitter and the heli’s electricity, push the gun in the center (PIT.50%).Fix the 3 ccpm servo arms according to the page of linkage rod adjustment and the explanation, and keep the servo arm level and the linkage rod 90 degree with it.

VII Set up the main rotor, push the gun in the center position, switch on the transmitter and then the electricity of the heli, after that, set the screw distance and select the proper gun position.

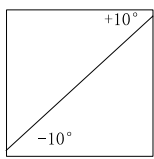
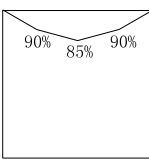
(THRO CURV)
NORM

(PIT. CURV)
NORM



ST-1

ST-1



or use constant speed

when measuring the main rotor’s screw distance, make sure the consistency on the both sides. (You can adjust it with screw distance linkage rod)

↓

VIII Find the most proper locked angle of the tail rotor. Wire the motor before switching on the electricity, then switch on the transmitter and select the right plug connector of gyro under 49 %(in the unlocked mode)

(GYRO SENS)
RUDD D/R

Rate:
0:40%

push the gun to the lowest position, and switch on the electricity in a safe place. Keep the heli a safe enough distance from people, then start to test the flying with hanging in a height of about 1 meter in the air, and constantly readjust the angle of the tail rotor blades, until the heli can hang in the air itself without adjusting the rudder. After the heli lands on, turn off the electricity on the heli, and lock the gyro to the locked mode as

Rate:
0:74~76
1:65~75

Then switch on the battery electricity again. After the gyro finishes the opening program, you can then have a complete test of the heli(to lock the mode you must switch on the electricity again)

Power System:

1) The motor and the ESC need matching test. Please choose our motors and ESC. In the NORM condition, the highest speed of the main rotor of the XHH-360 is 2200~2600rpm; in the ST-1 condition, it is 2800~3200rpm.

2) Through gear decelerating structure, the motor can make the main rotor rotate. You can choose 10T, 12T, 14T motor copper gears (attached to the kit) to change the decelerating speed. (XHH-360 'S main rotor gear is 180T)

$$V \text{ (battery voltage)} \times K_v \text{ (motor rev /v of)} \times \text{the number of motor's teeth} \div 180 \text{ (main rotor gear)} =$$

the rev of the main rotor

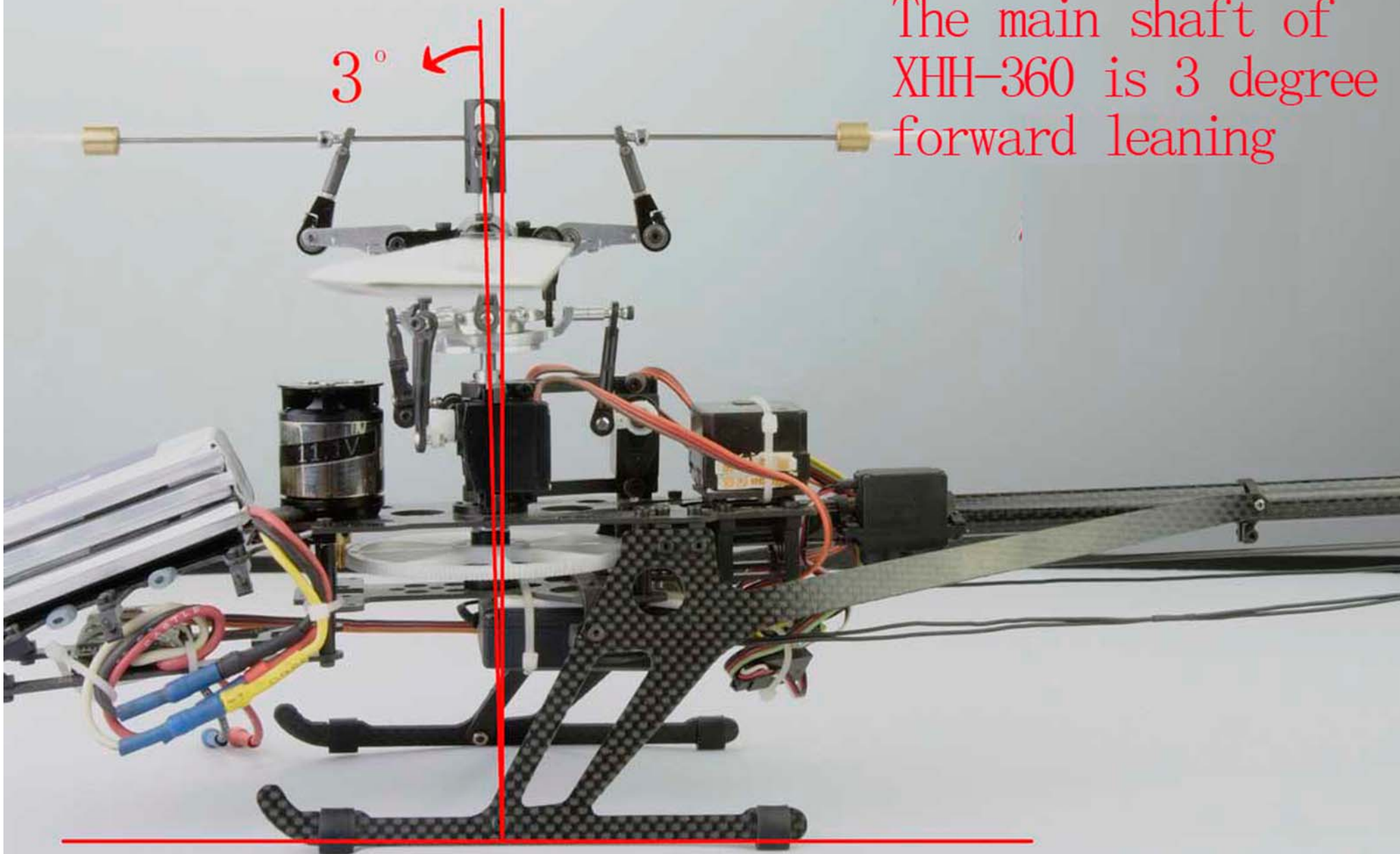
3) Our ESC (25A / 30A, BEC3A) can be matched with .3s 11.1V and 4s 14.8V Li-battery.

4) Please use (3s) 11.1V, 1300~2000mAH, and over 12c Li-battery.

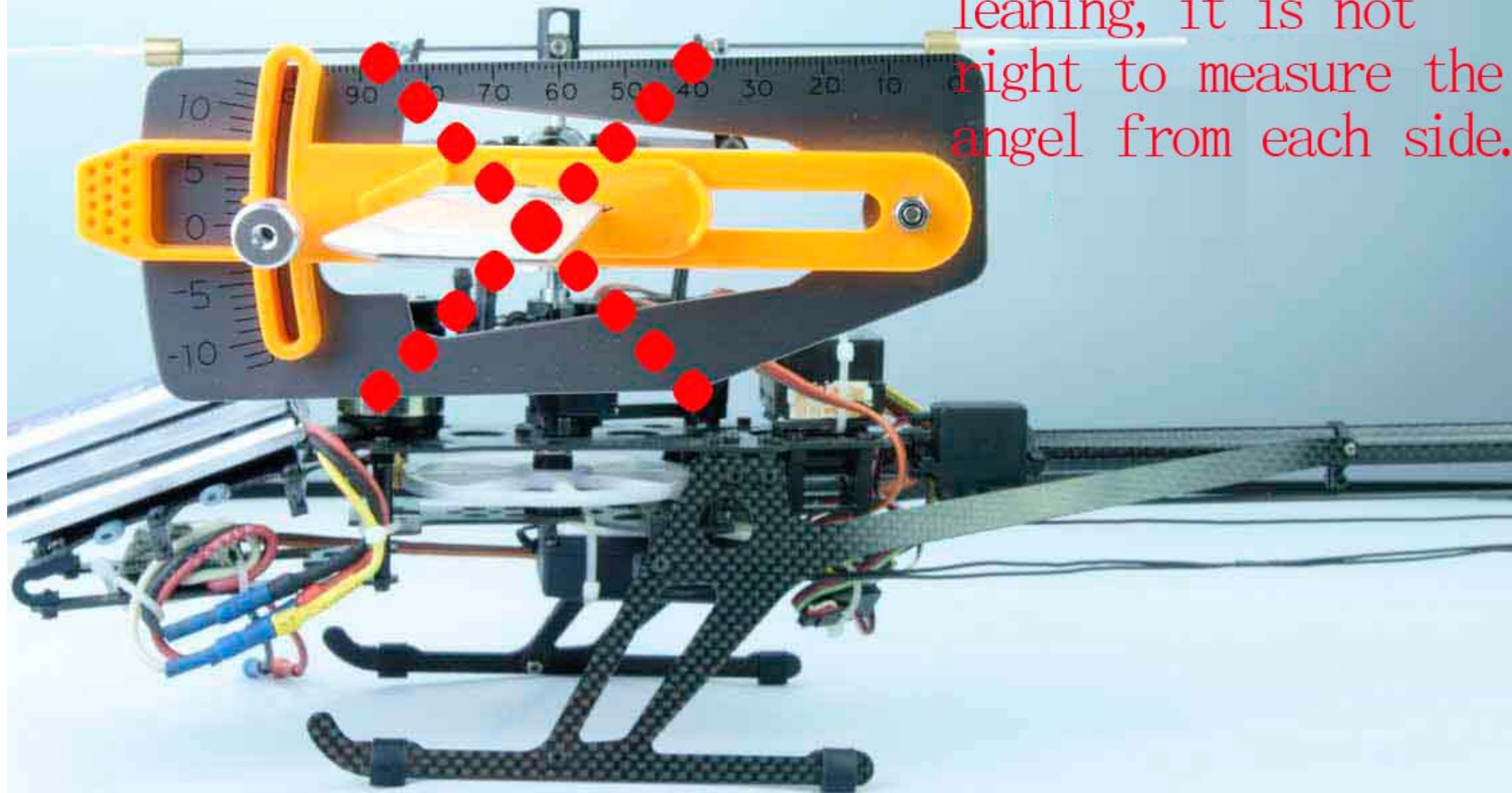
3°



The main shaft of
XHH-360 is 3 degree
forward leaning

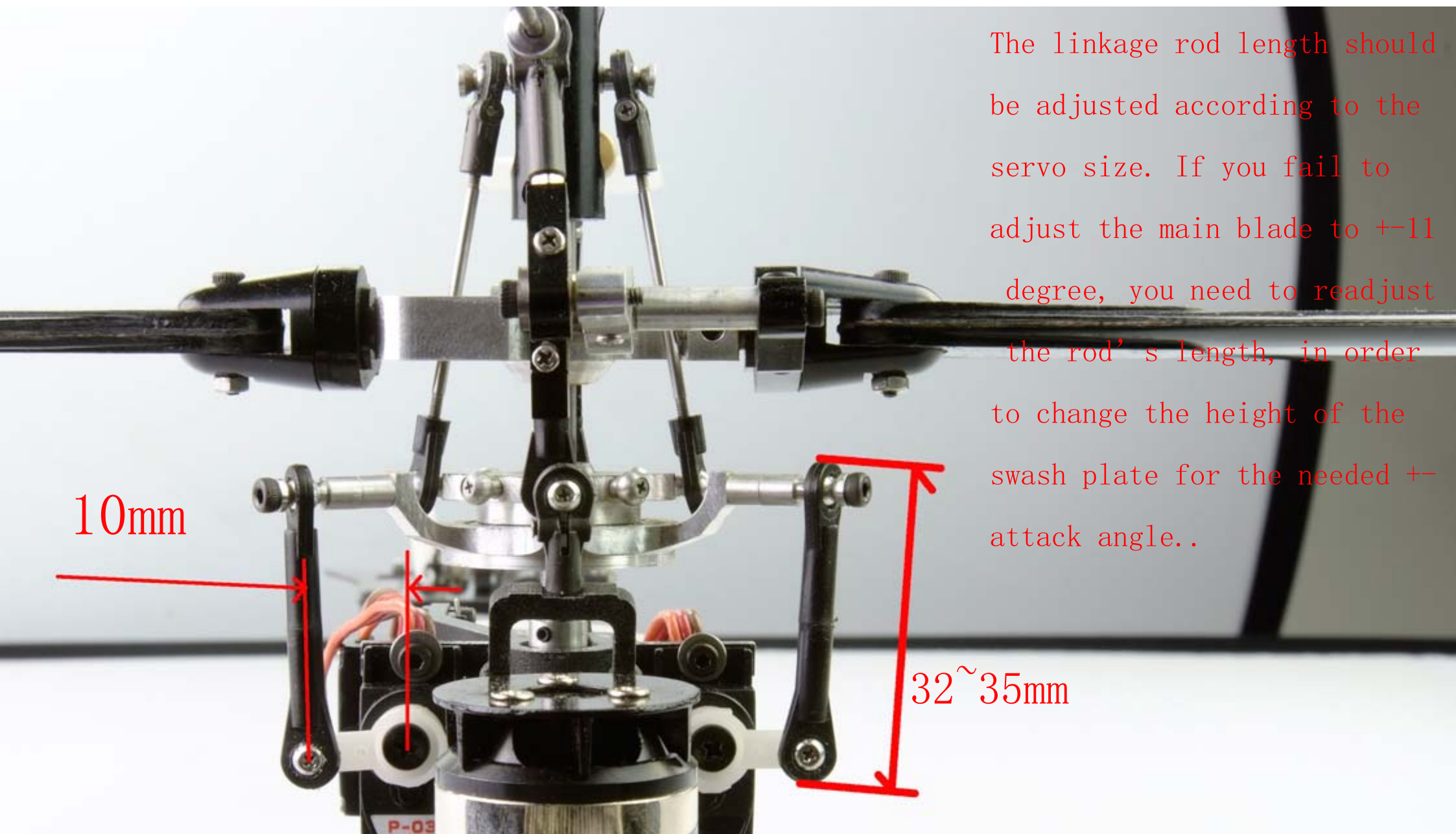


As the main shaft is 3 degree forward leaning, it is not right to measure the angel from each side.



It is right to
measure the
angel before
or behind the
main shaft



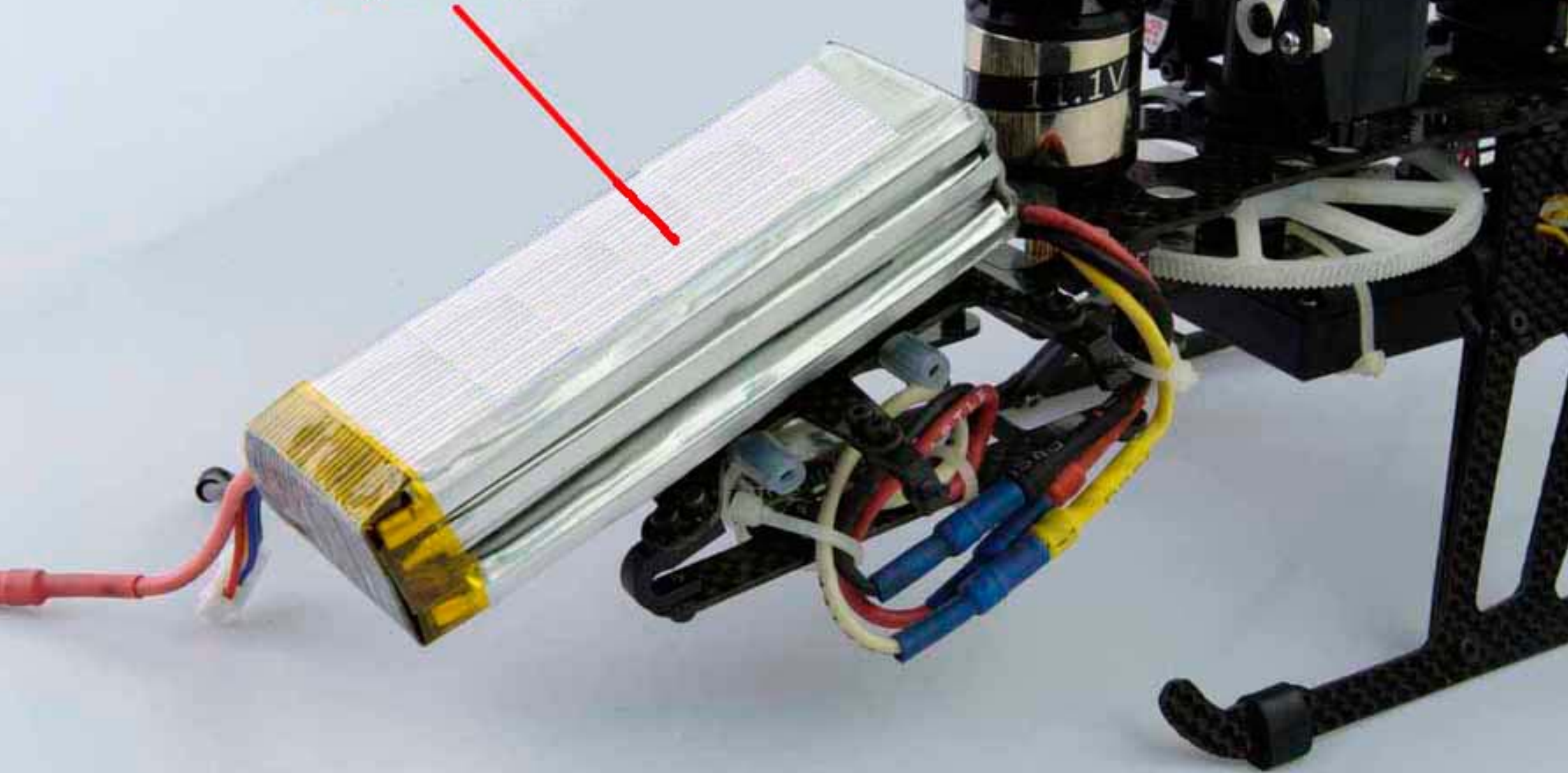


The linkage rod length should be adjusted according to the servo size. If you fail to adjust the main blade to ± 11 degree, you need to readjust the rod's length, in order to change the height of the swash plate for the needed \pm attack angle..

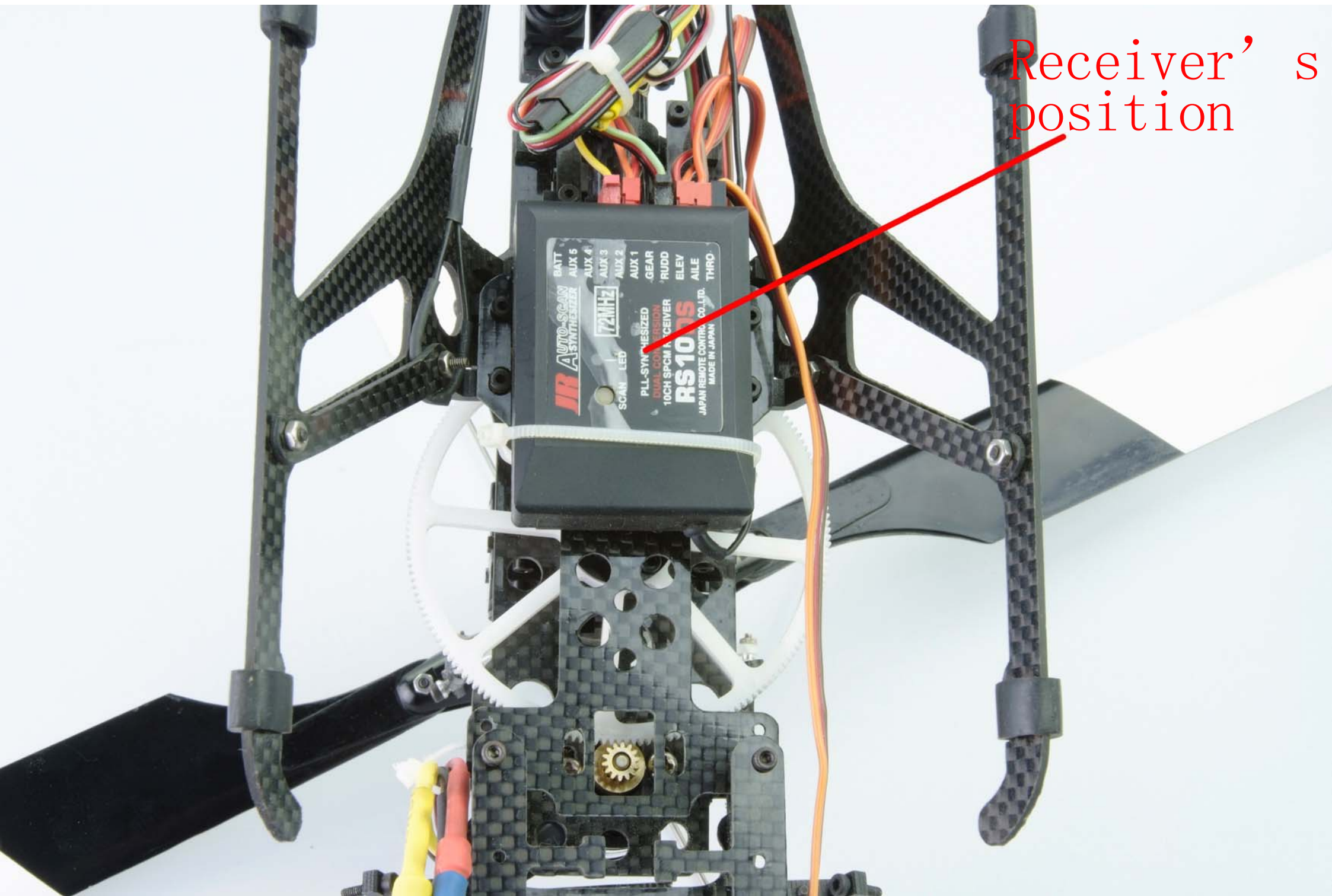
10mm

32~35mm

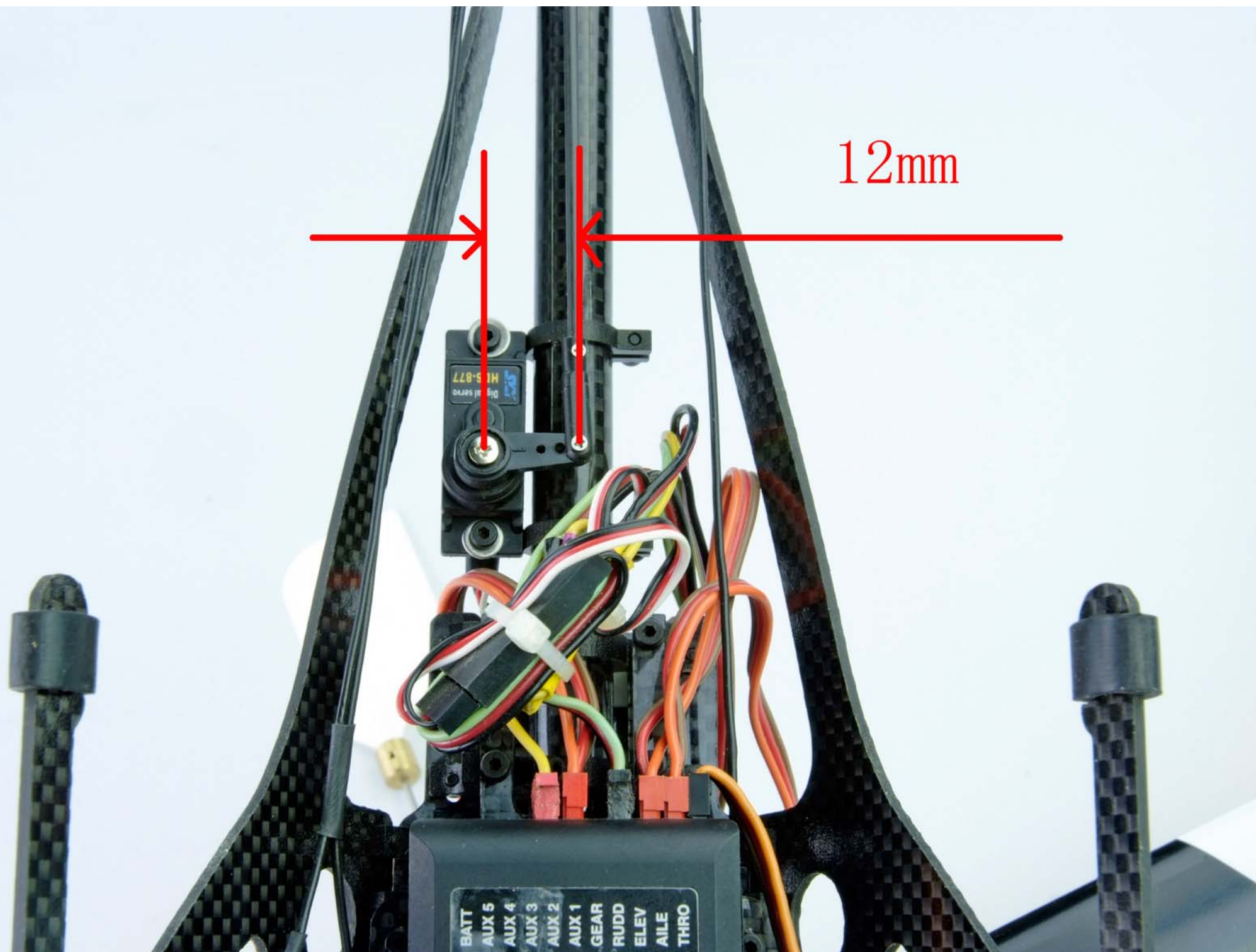
Battery's position

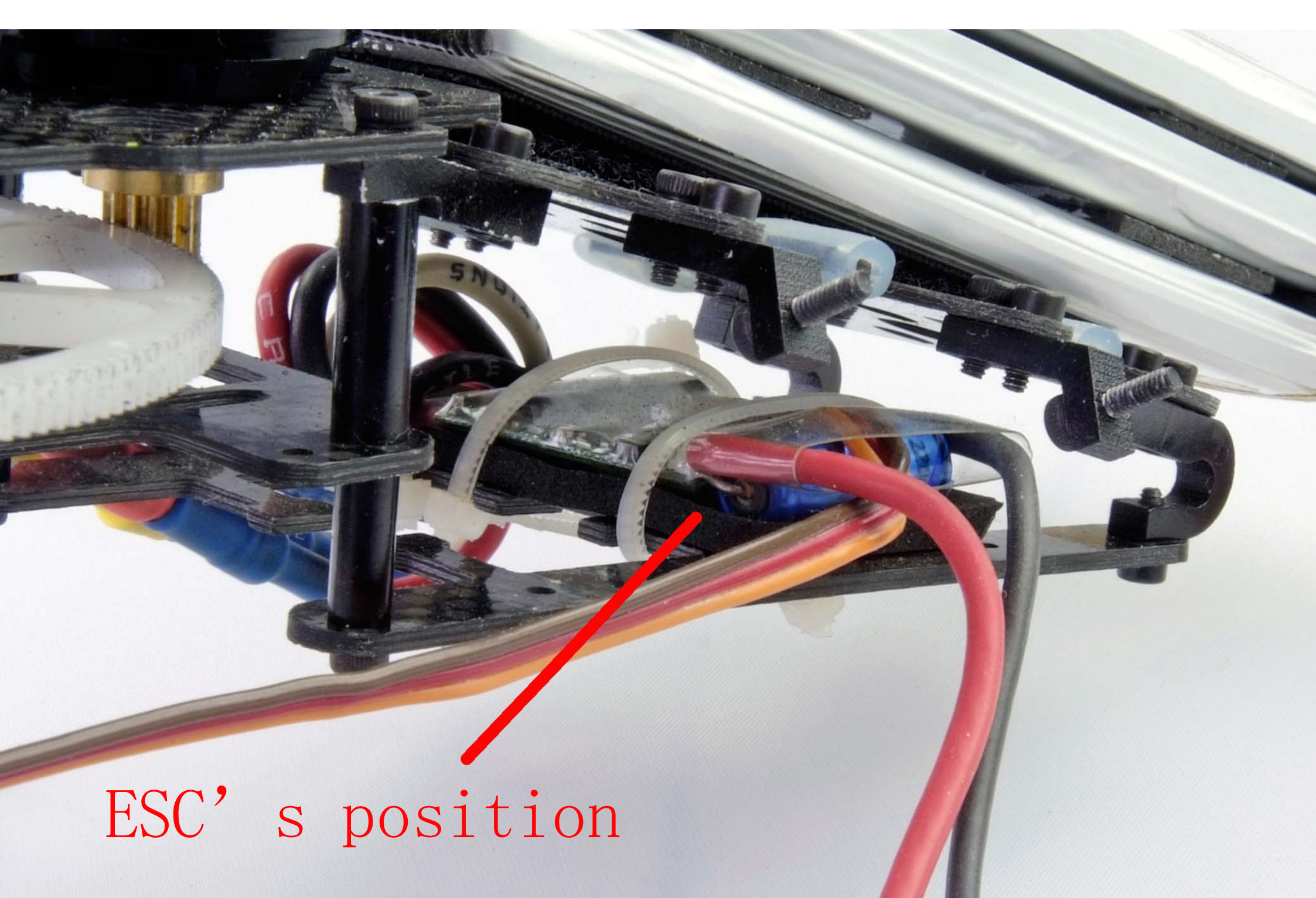


Receiver's
position



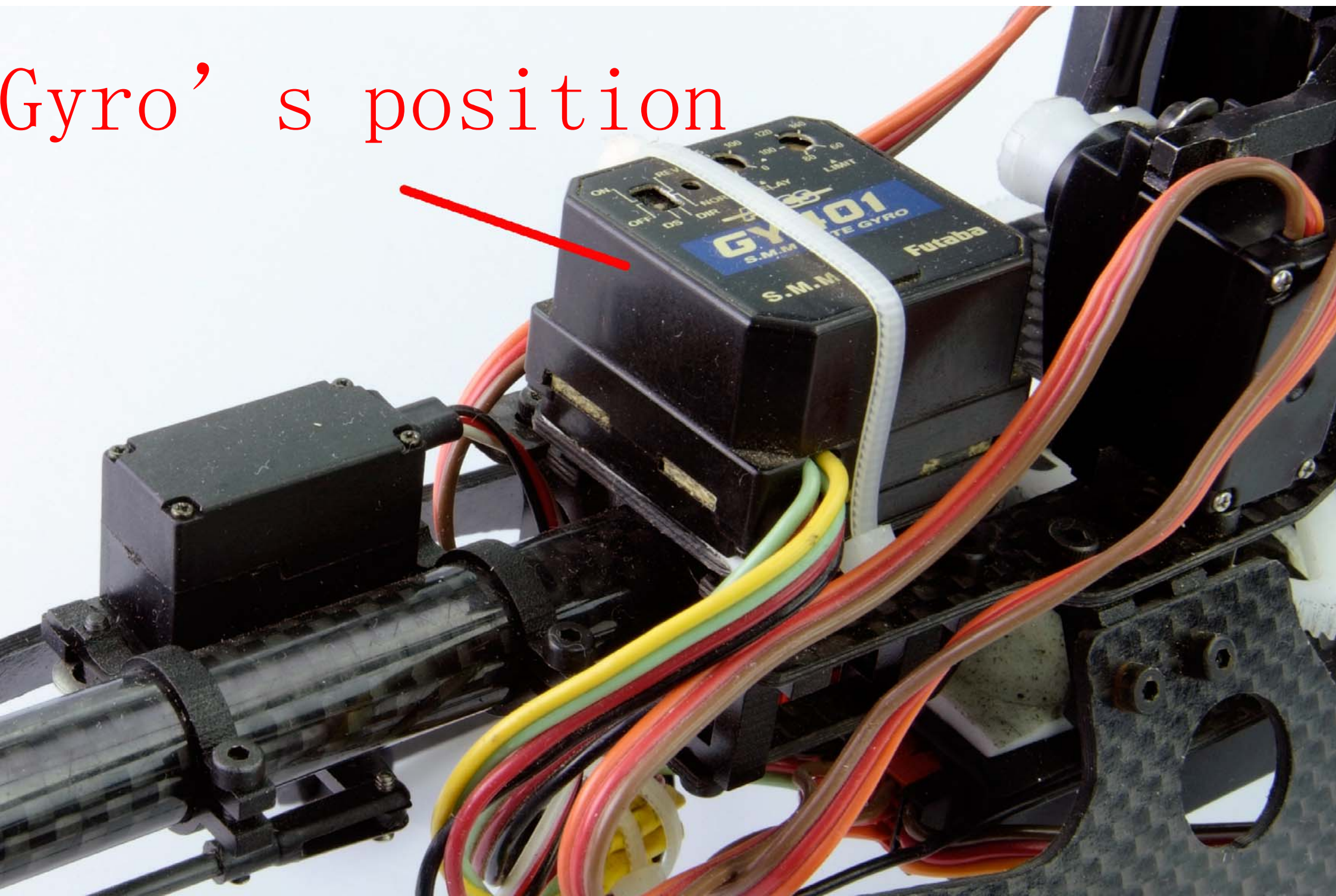
12mm

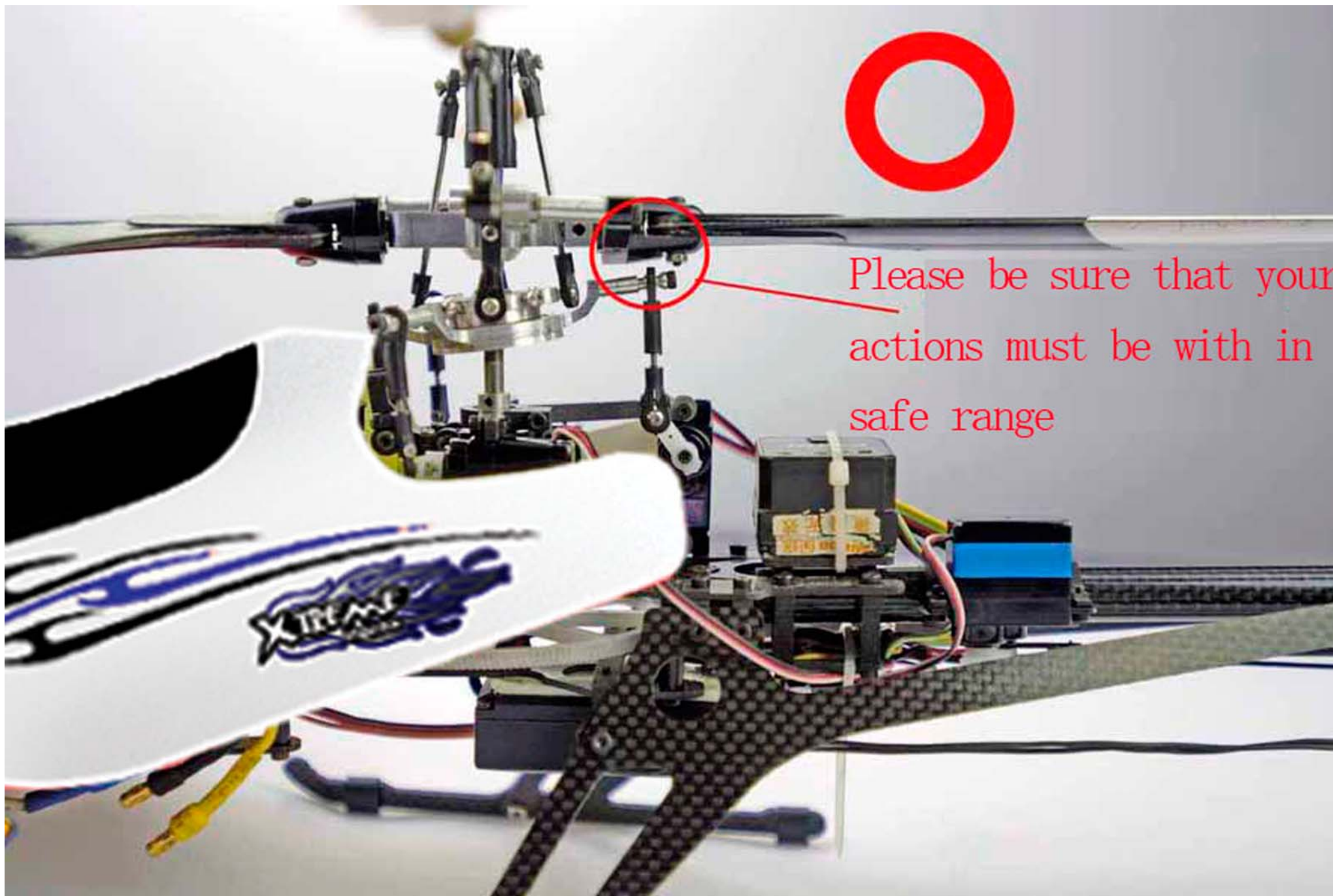




ESC' s position

Gyro's position





Please be sure that your
actions must be with in
safe range

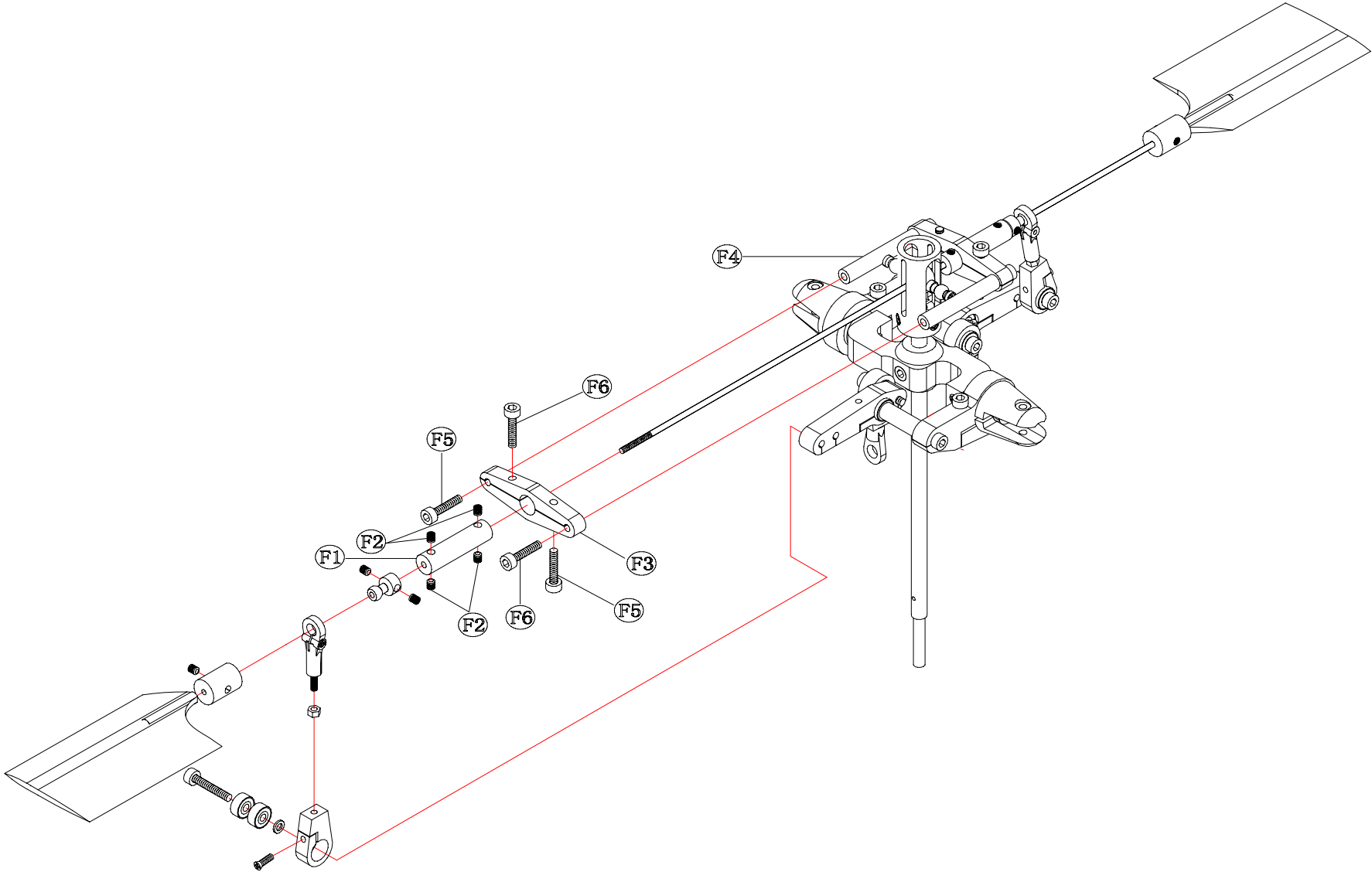
OPTIONAL SPARE PARTS



Assembly drawing of upgrade kit (Flybar frame)

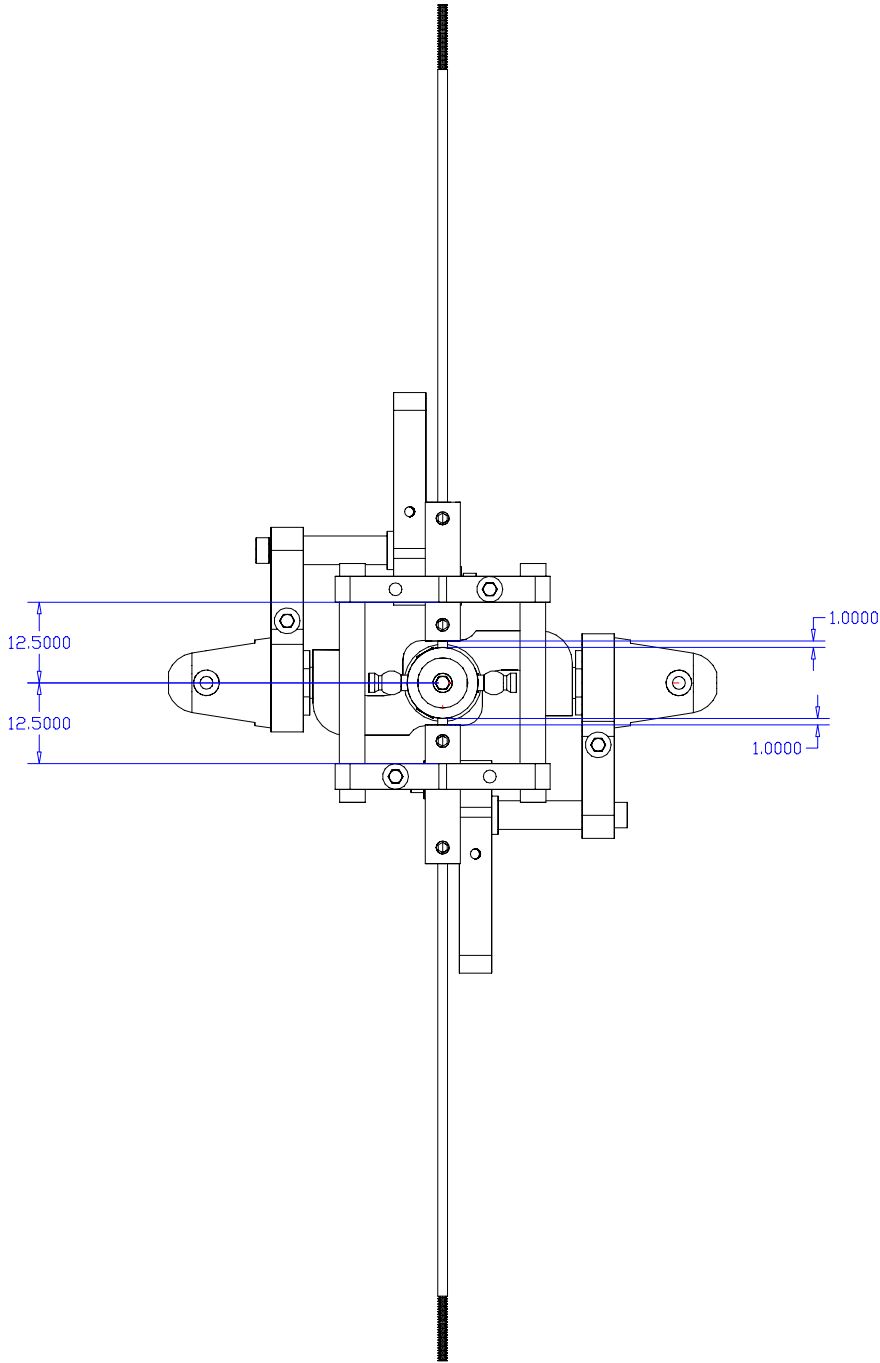
1

NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
F1	AL3043	Flybar rod set	2		F4	FUP003	Flybar frame linkage	2	
F2	XH20007	Set screw	8	M2×2mm	F5	XH20004	Cap screw	4	M2×8mm
F3	FUP003	Flybar frame mount	2		F6	XH20004	Cap screw	4	M2×8mm



Assembly drawing of upgrade kit(Flybar frame)

2



Assembly drawing of upgrade kit(Flybar frame)

3

