

Notes for safety:

1. This RC heli model is not a low motivity doll. It is with big force and high flying speed. Please try it under the guiding of somebody experienced.
2. Please fly under a safe condition.
3. After switch 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 a high pressure environment, or there is other remote controller using the same radio channel, or other unidentified wave. .So remember to keep a far and safe distance from these and people. Please be alert every minute and second.
4. The battery used here might cause a fire in case of short, dampness, bump, cracking and over loading.
5. This heli has a max rev. The max rev of the frame part is 3000rpm, 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 renew the main rotor frequently, as the stuff will be degraded and with less intensity after fierce and high speed movement.
7. Please electricize the battery according to the guide line related, so as to prevent any danger.
8. The players should be responsible for their own deed and responsible for the damage and injury happened during the operation process, if any.
9. The bearing would have cracks when the plan is crashed, You had better check it carefully or change it directly。
10. When the rotation became unusual, please change the bearing immediately。 When you do your flying, please check it every 3 hours and change it every 27 hours。
11. The speed should not exceed 3000RPM 。

SJM500

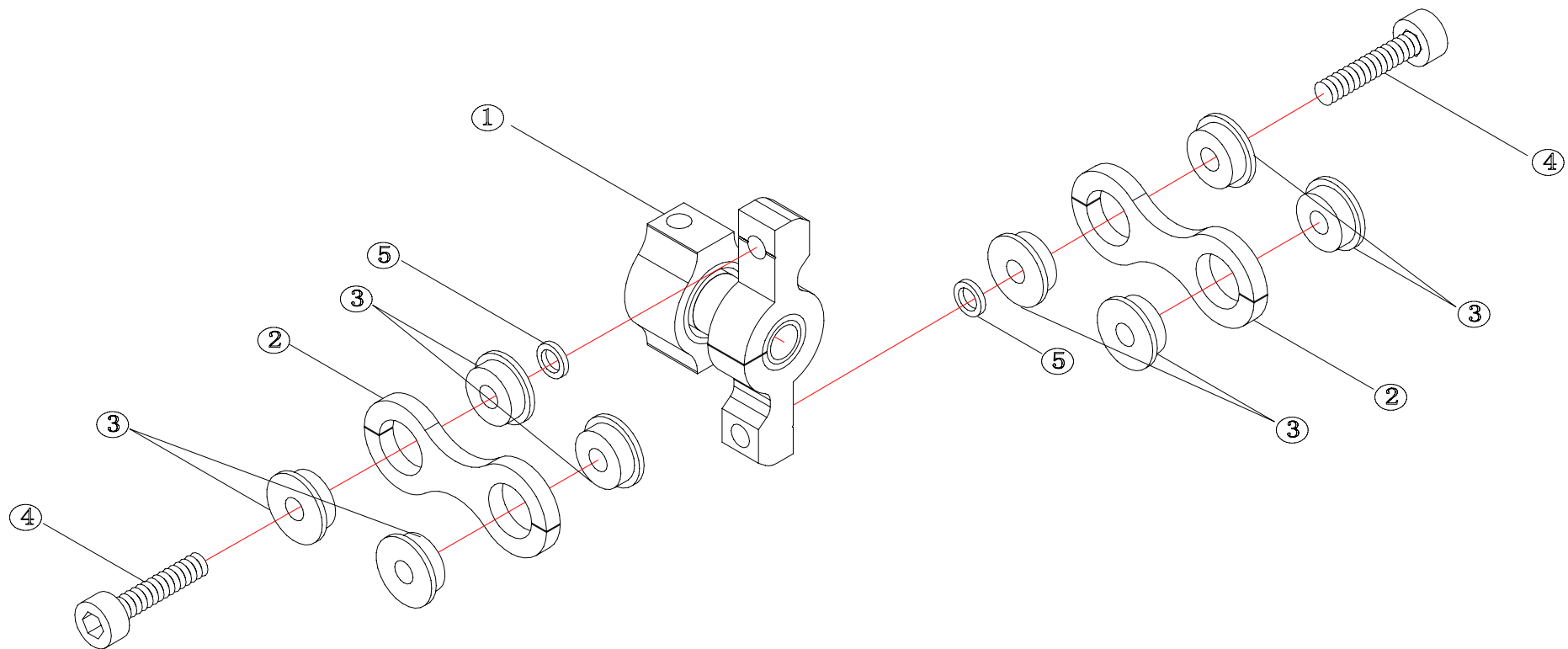
KIT:

- Kit weight (including the fiberglass canopy and the main blade): 824g
- RTF weight: 1450g
- Kit width: 170mm
- Kit width: 260mm
- Main rotor diameter: 870 mm
- Main rotor specification: 390mm
- Flybar rod: $295 \times \varnothing 2\text{mm}$
- Tail rotor diameter: 150mm
- Main shaft diameter: $\varnothing 6\text{mm}$
- Tail rotor shaft diameter: $\varnothing 3\text{mm}$
- Tail boom diameter (outer): 15mm
- Main rotor: Changeable screw distance
Adjustable mixing control;
- Revolving swash plate: ccpm120 degree
- Main drive gear: M0.6 125T
- Speed ratio of main and tail drive gear: 1: 4.8

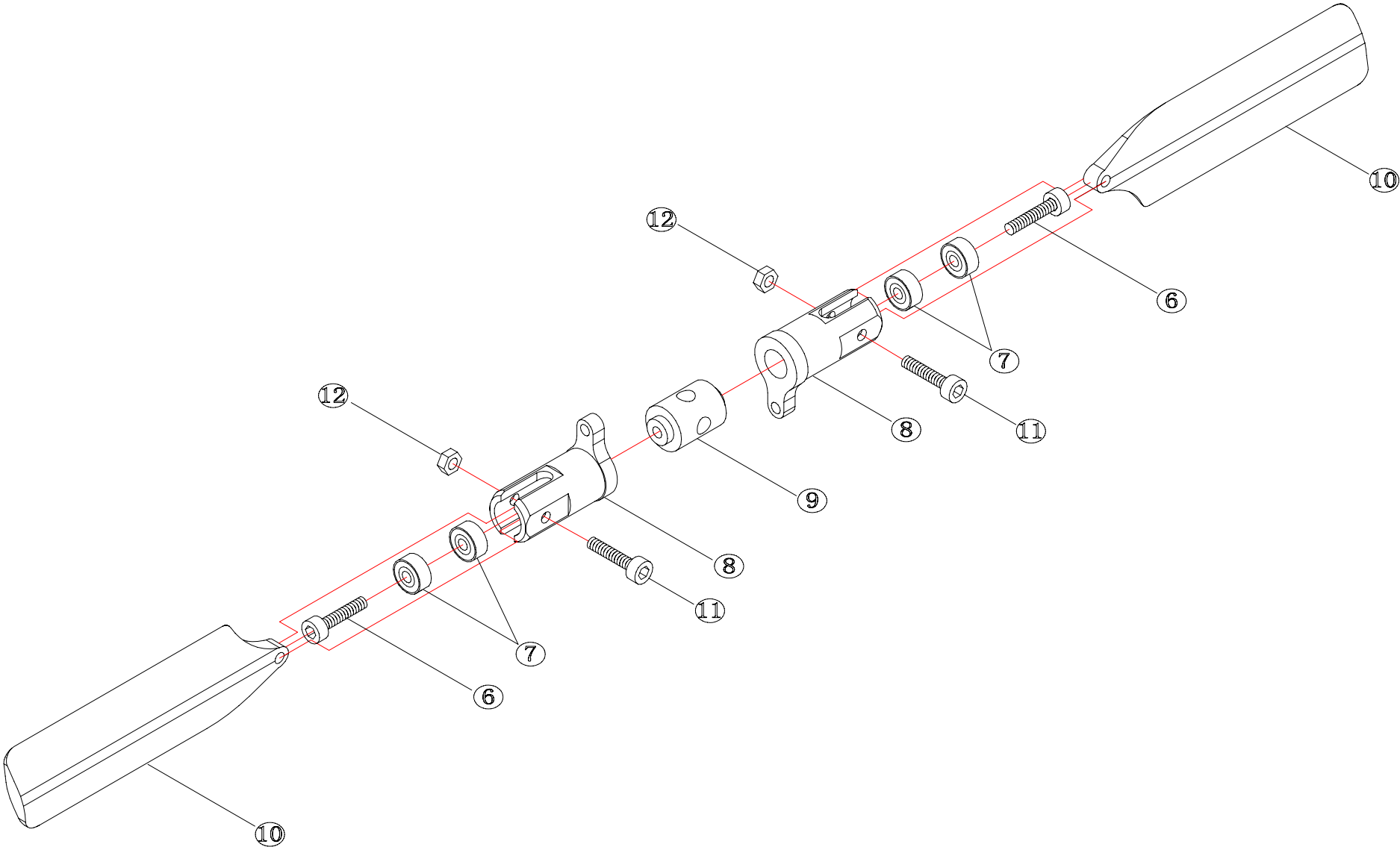
Motor And Other Electronics:

- 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 22.2v (optional)
- 4 servos (optional)
- One gyro (optional)
- One battery charger (optional)

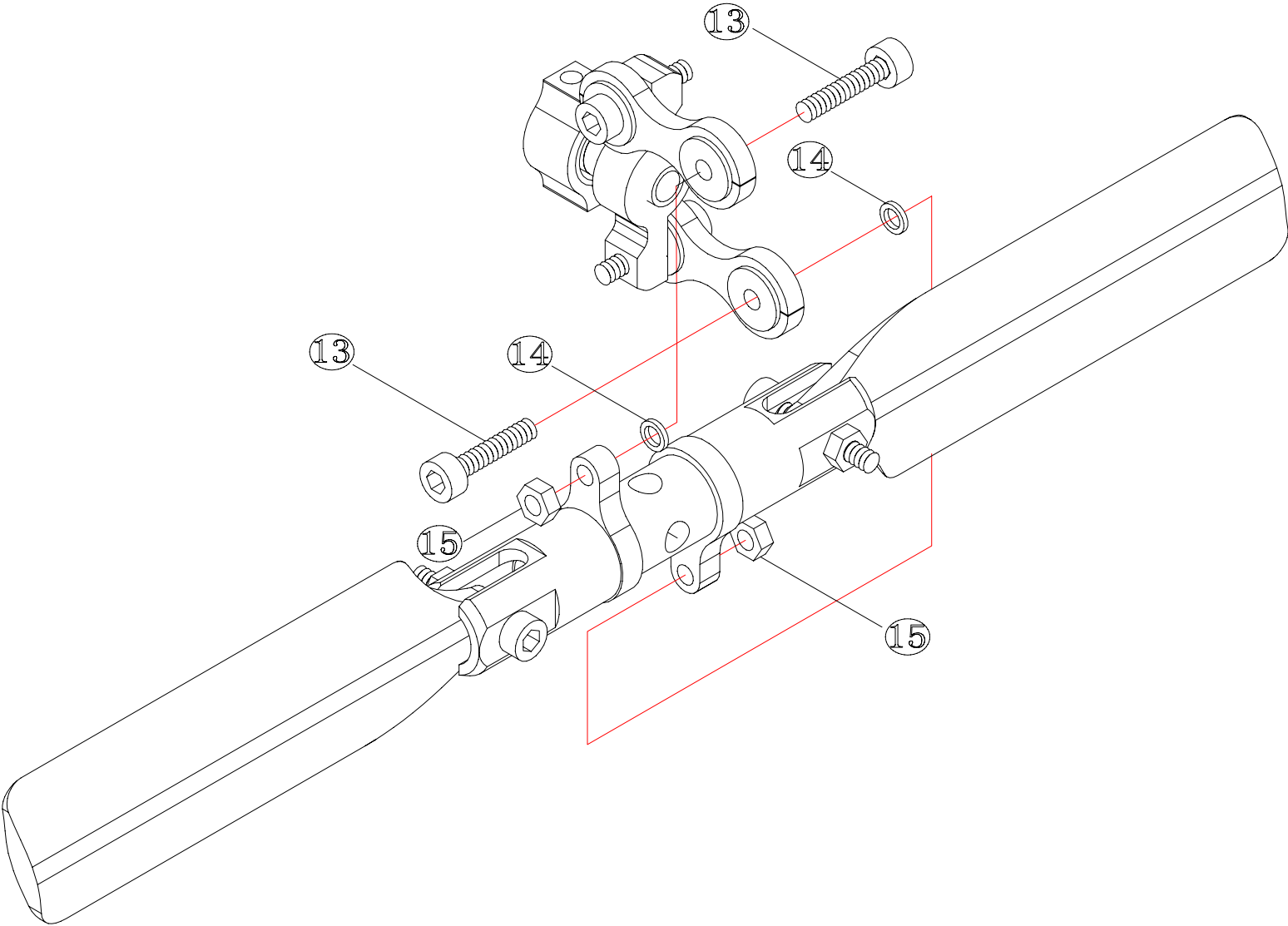
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
1	AL5016	Sliding shaft	1		4	SJ20005	Cap screw	2	M2×10mm
2	AL5018	Tail angel adjusting joint	2		5	AL5049	Underlay	2	Ø2×Ø3×0.5mm
3	SJ10004	Flange Bearing	8	Ø2×Ø5×1.5mm					



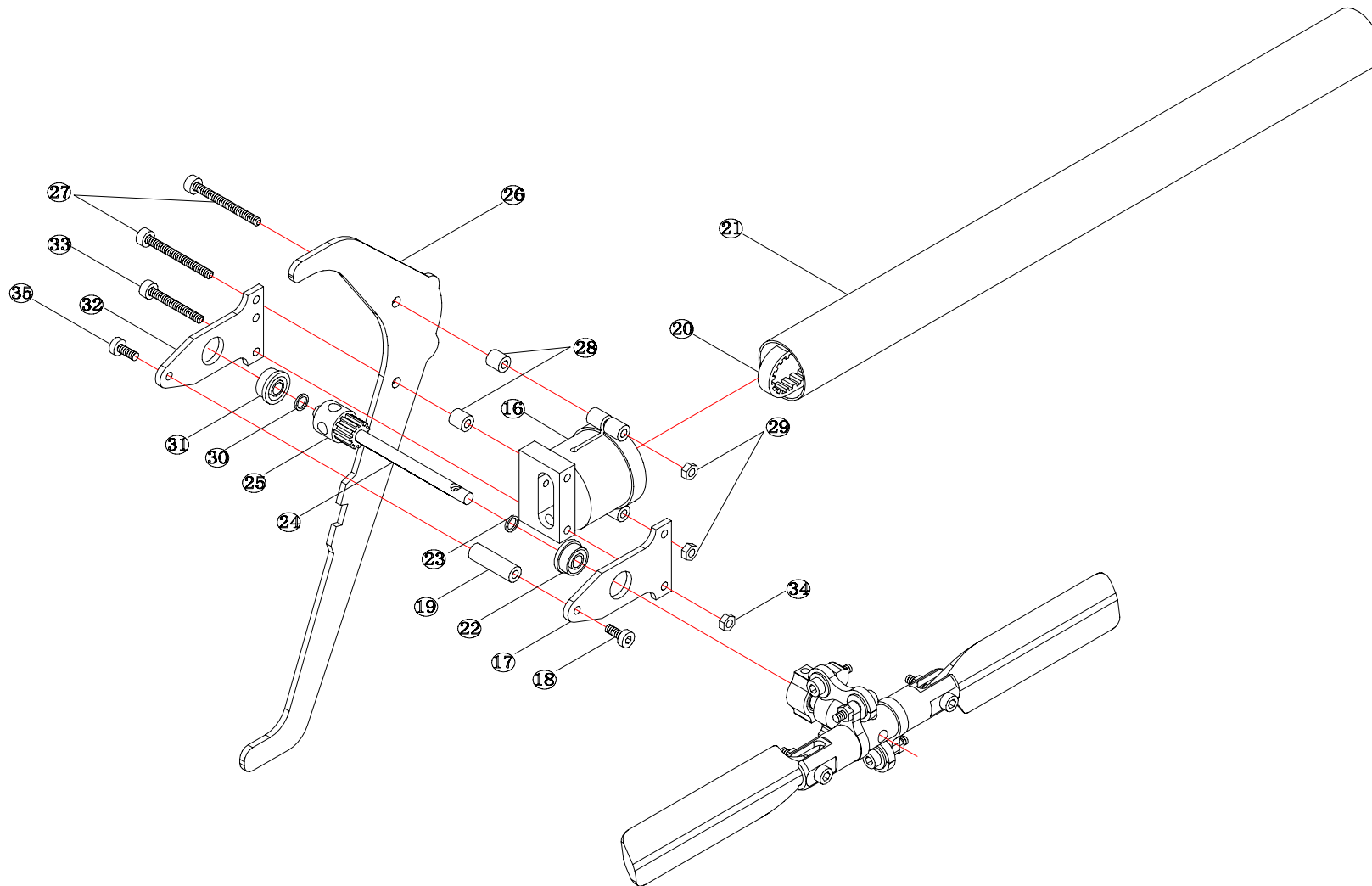
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
6	SJ20005	Cap screw	2	M2×10mm	10	CF5002	Tail blade	2	
7	SJ10010	Bearing	4	Ø2×Ø6×2.5mm	11	SJ20005	Cap screw	2	M2×10mm
8	AL5019	Tail blade clincher	2		12	SJ70001	Nut	2	M2
9	AL5020	Tail blade center	1						



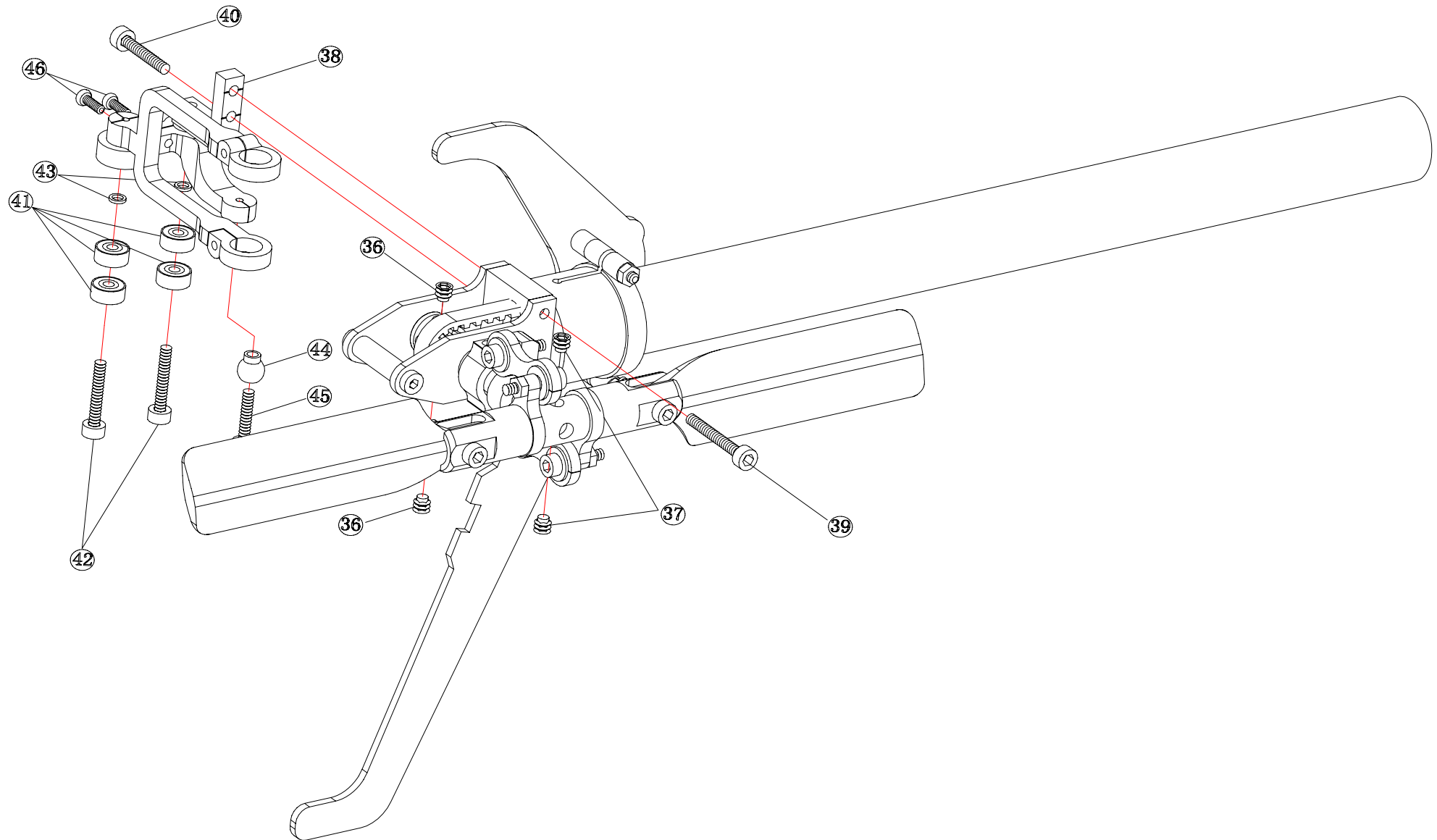
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
13	SJ20004	Cap Screw	2	M2×8mm	15	SJ70001	Nut	2	M2
14	AL5049	Underlay	2	Ø2×Ø3×0.5mm					



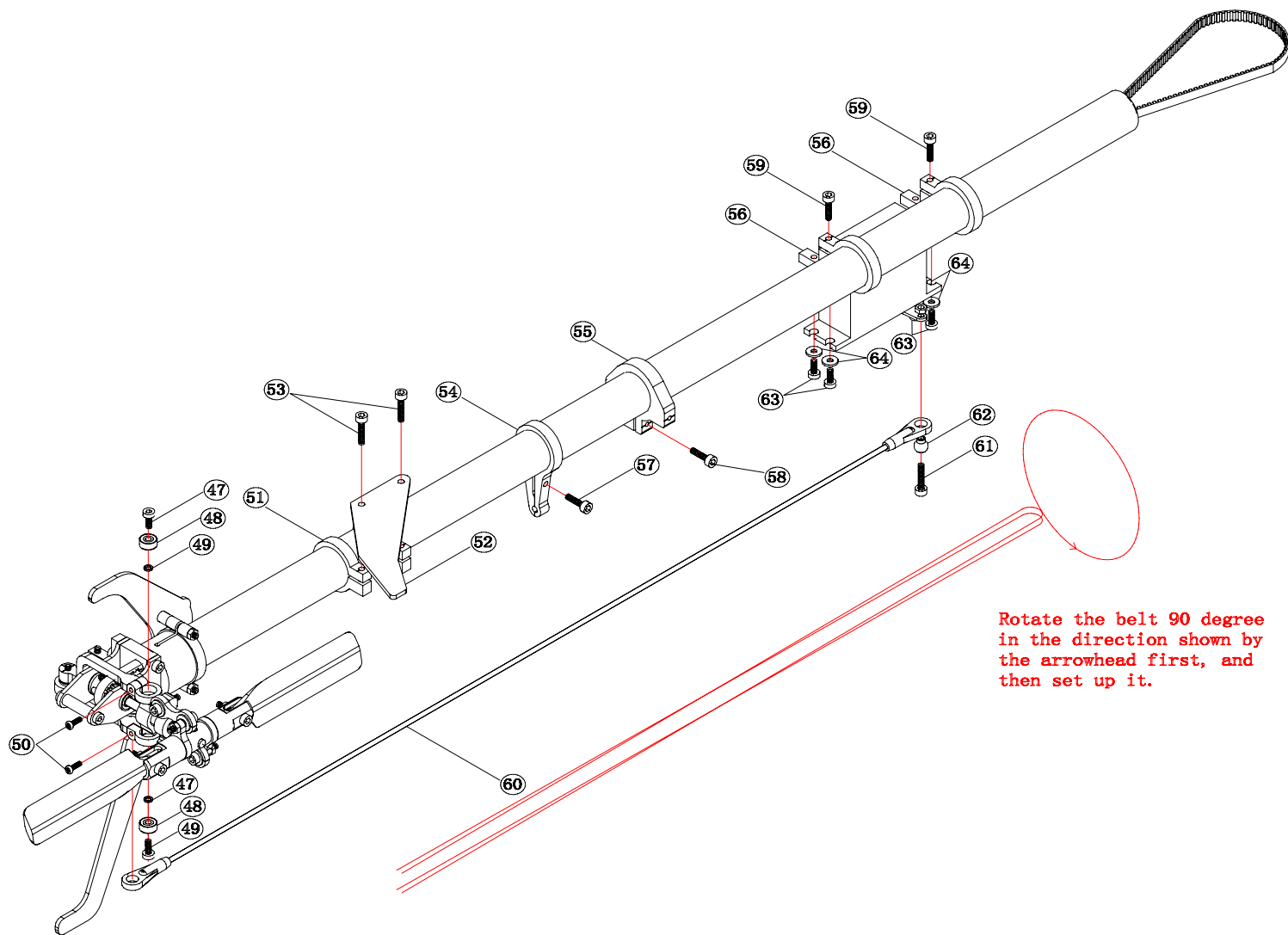
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
16	AL5017	Tail unit housing	1		26	CF5010	Vertical blade	1	
17	CF5003	Tail unit housing side board	1		27	SJ20019	Cap screw	2	M2×20mm
18	SJ20003	Cap screw	2	M2×5mm	28	CF5010	Vertical blade washer	2	Ø2×Ø4×4mm
19	CF5003	Tail unit housing washer	1	Ø2×Ø4×13mm	29	SJ70001	Nut	2	M2
20	SJ50003	Belt	1	456MXL	30	CL5001	Underlay	1	Ø3×Ø4×0.5mm
21	CF5017	Carbonfiber tail boom	1	Ø15×460mm	31	SJ10015	Frang bearing	1	Ø3×Ø7×3mm
22	SJ10015	Frang bearing	1	Ø3×Ø7×3mm	32	CF5003	Tail unit housing side board	1	
23	CL5001	underlay	1	Ø3×Ø4×0.5mm	33	SJ20019	Cap screw	1	M2×20mm
24	HS5003	Tail shaft	1	Ø3×48.5mm	34	SJ70001	Nut	1	M2
25	CL5001	Tail shaft belt gear	1		35	SJ20003	Cap screw	1	M2×5mm



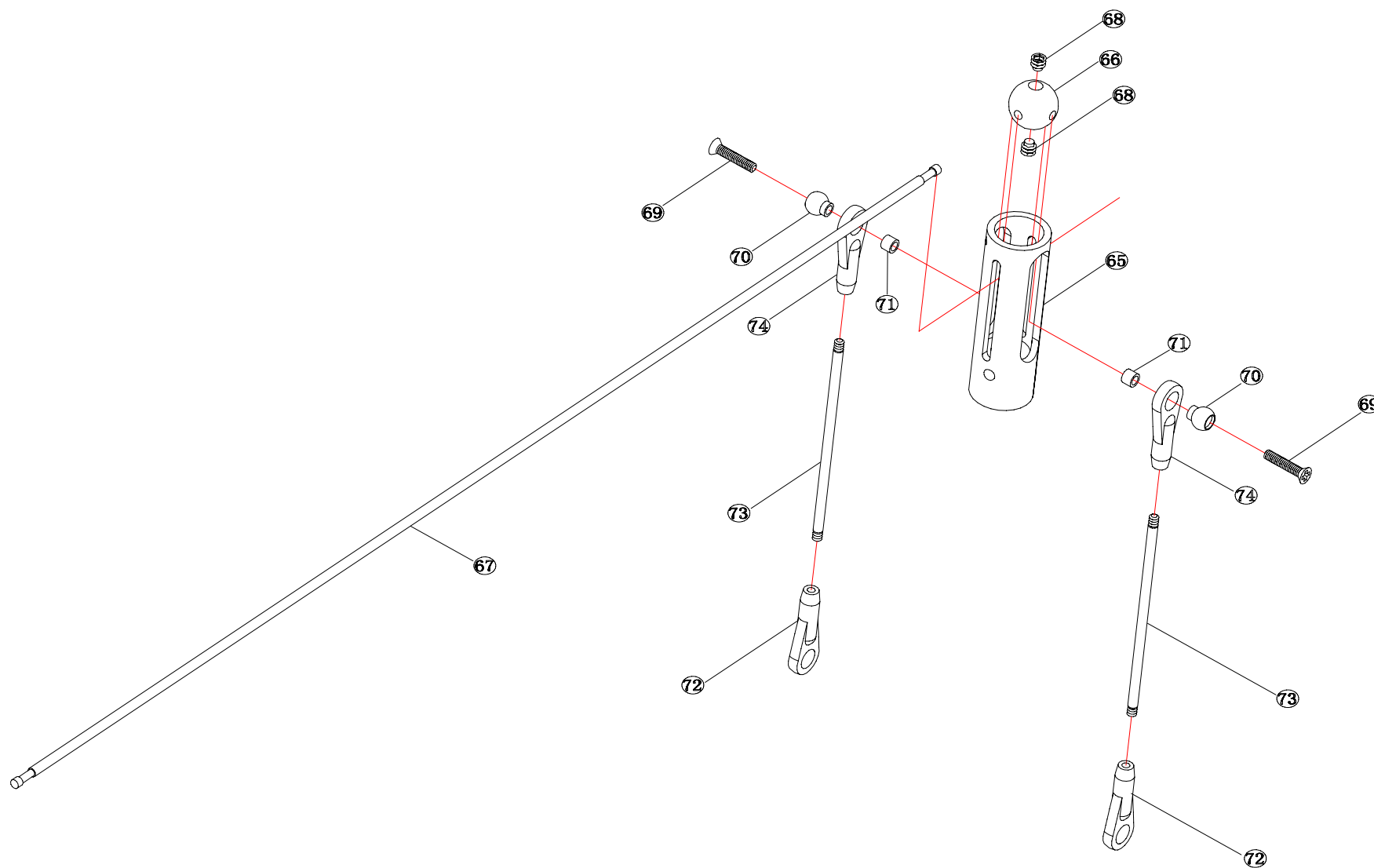
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
36	SJ20009	Set Screw	2	M3×3mm	42	SJ20005	Cap Screw	2	M2×10mm
37	SJ20009	Set Screw	2	M3×3mm	43	AL5049	Underlay	2	Ø2×Ø3×0.5mm
38	AL5015	Tail angle adjusting set	1		44	AL5048	Linkage ball	1	
39	SJ20019	Cap screw	1	M2×20mm	45	SJ20004	Cap Screw	1	M2×8mm
40	SJ20004	Cap screw	1	M2×8mm	46	SJ40001	Round head screw	2	M1.6×6mm
41	SJ10010	Bearing	4	Ø2×Ø6×2.5mm					



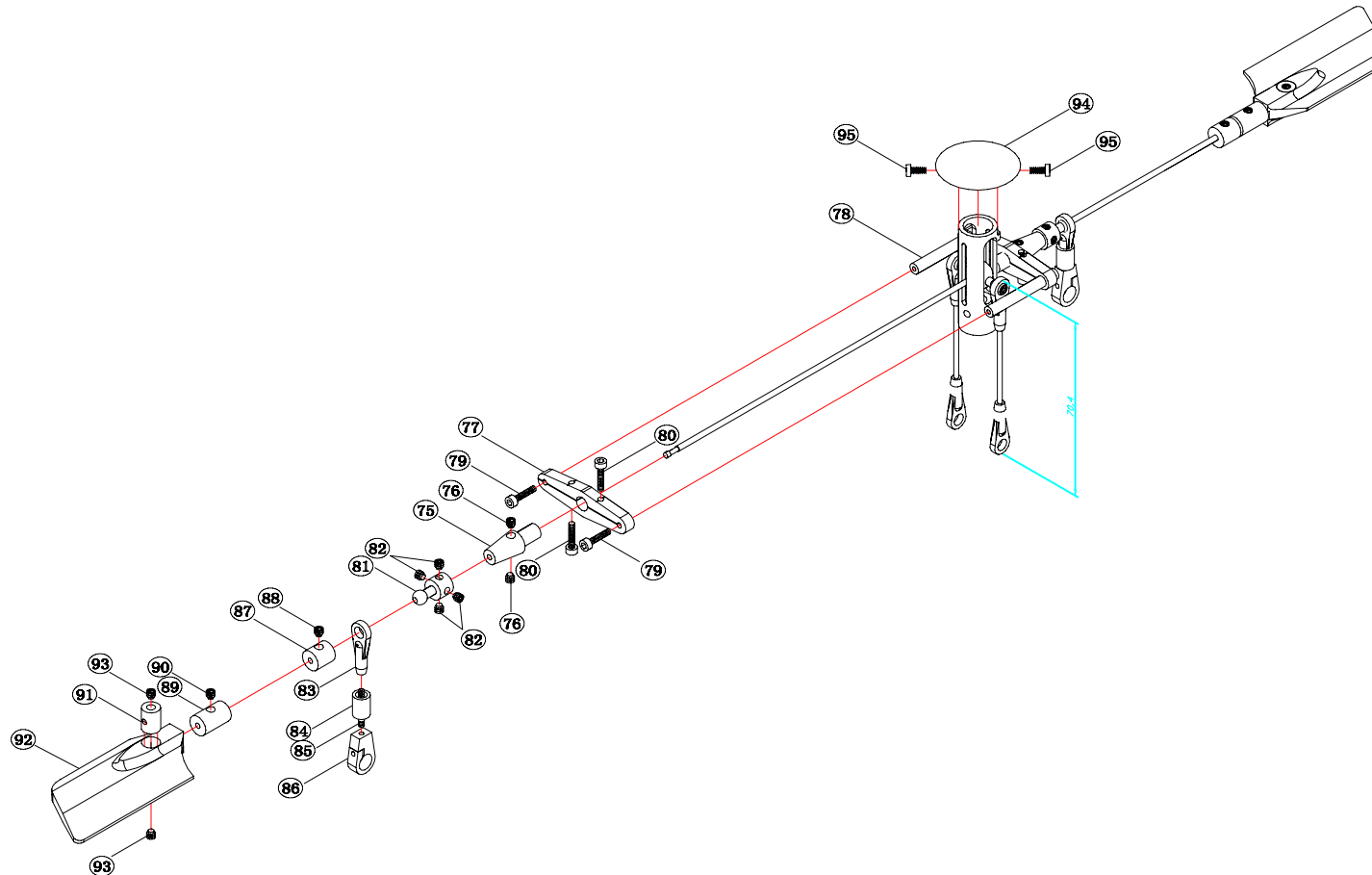
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
47	SJ20003	Cap Screw	2	M2×5mm	56	AL5021	Tail servo mount	2	
48	SJ10010	Bearing	2	Ø2×Ø6×2.5mm	57	SJ20004	Cap screw	1	M2×8mm
49	AL5049	Underlay	2	Ø2×Ø3×0.5mm	58	SJ20004	Cap screw	1	M2×8mm
50	SJ40001	Roung head screw	2	M1.6×6mm	59	SJ20004	Cap screw	2	M2×8mm
51	AL5039	Level blade bracket	2		60	HS5004	Tail servo link	1	
52	CF5007	Level blade	1		61	SJ20004	Cap screw	1	M2×8mm
53	SJ20005	Cap screw	2	M2×10mm	62	AL5048	lingkage ball	1	
54	AL5023	Connecting rod rest	1		63	SJ20003	Cap screw	4	M2×5mm
55	AL5022	Tail boom support	1		64	AL5049	underlay	4	Ø2×Ø5.5×0.7mm

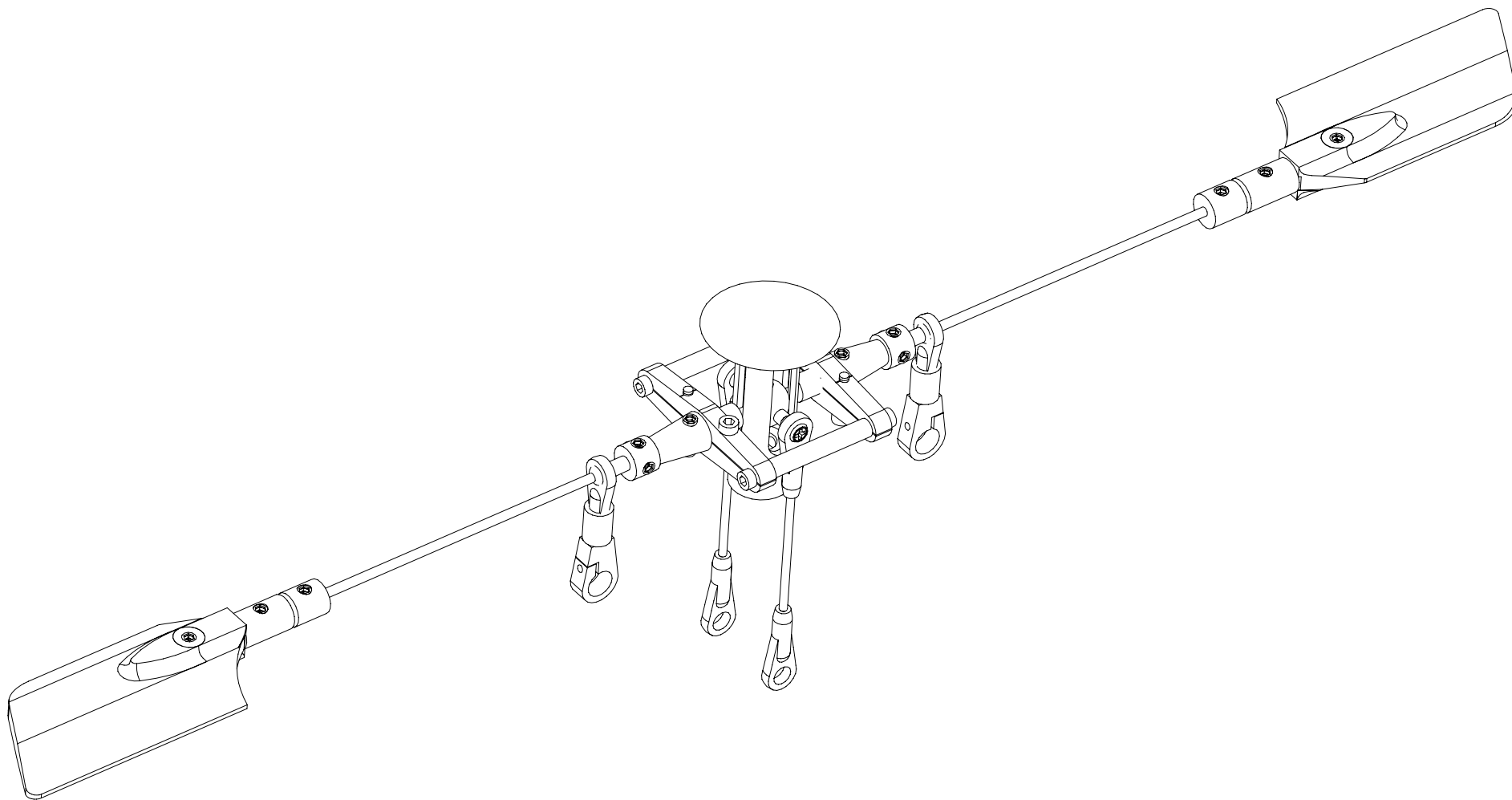


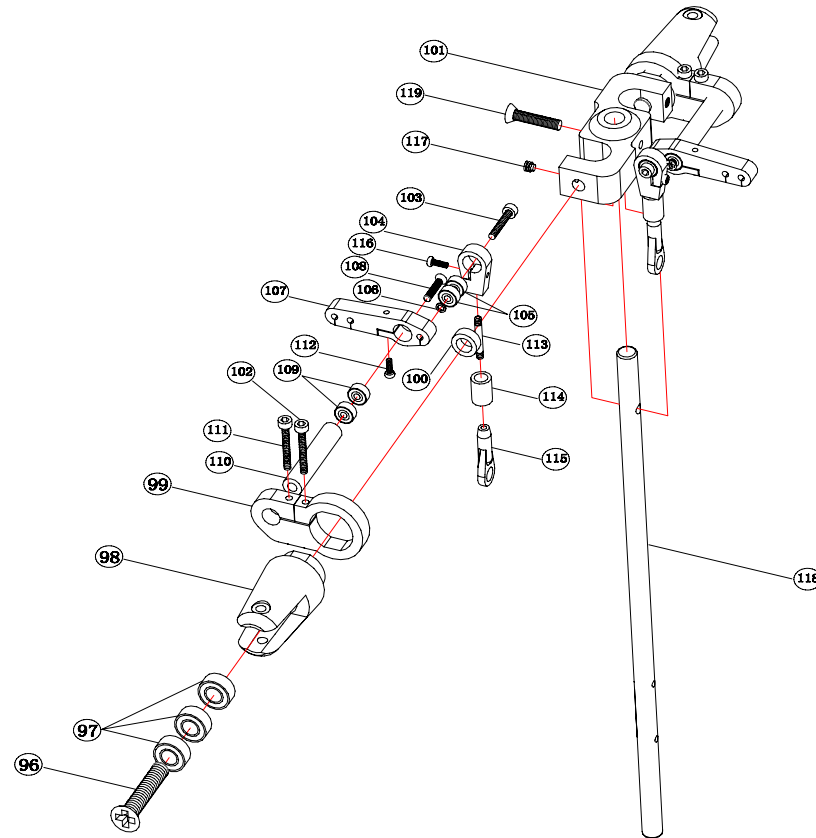
NO.	Part NO.	Discription	Q' TY	Specification	NO.	Part NO.	Discription	Q' TY	Specification
65	AL5011	Flybar stand	1		70	AL5048	Linkage ball	2	
66	AL5012	Flybar copper ball	1		71	AL5012	Undelay washer	2	$\varnothing 2 \times \varnothing 3 \times 2.3\text{mm}$
67	HS5001	Flybar rod	1	$\varnothing 2 \times 295\text{mm}$	72	SJ50004	Ball link	2	H20
68	SJ20009	Set screw	2	$M3 \times 3\text{mm}$	73	HS5005	Linkage rod	2	$M2 \times 50\text{mm}$
69	SJ30012	Ball link screw	2	$M2 \times 10\text{mm}$	74	SJ50004	Ball link	2	H20

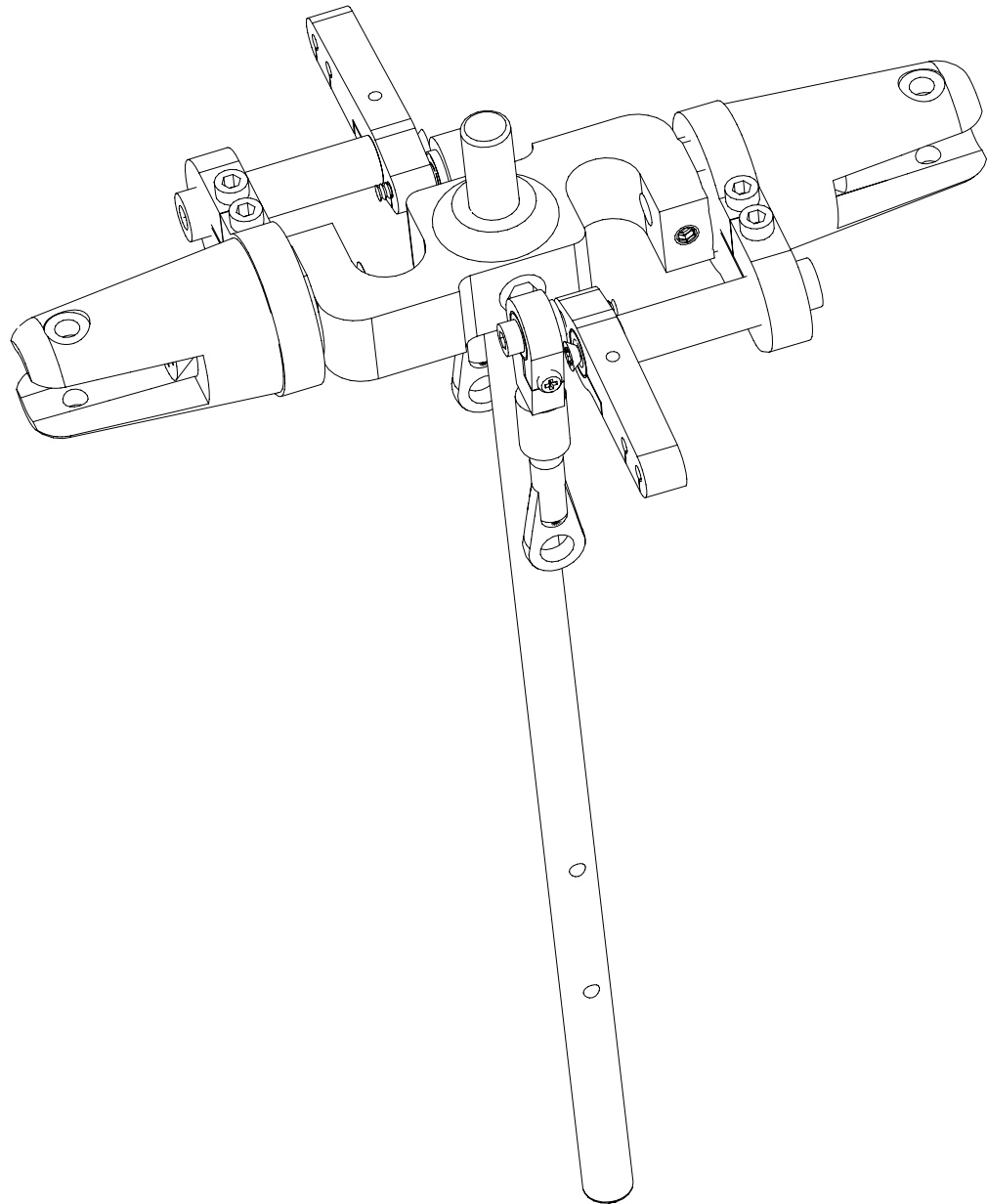


NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
75	AL5040	flybar rod set	2		86	AL5004	Flybar mixing arm set subassembly	2	
76	SJ20009	Set screw	2	M3×3mm	87	AL5043	Copper ingot	2	
77	AL5040	Flybar frame stand	2		88	SJ20009	Set screw	2	M3×3mm
78	AL5040	flybar frame linkage rod	2		89	AL5044	Copper ingot	2	
79	SJ20004	Cap screw	4	M2×8mm	90	SJ20009	Set screw	2	M3×3mm
80	SJ20004	Cap screw	4	M2×8mm	91	CF5001	Flybar paddle lock set	2	
81	AL5047	Flybar linkage ball	2		92	CF5001	Flybar paddle	2	
82	SJ20009	Set screw	8	M3×3mm	93	SJ20009	Set screw	4	M3×3mm
83	SJ50004	Ball link	2	H20	94	AL5026	Brake disk	1	
84	AL5042	Linkage rod parts	2		95	SJ20003	Cap screw	4	M2×5mm
85	HS5005	Linkage rod	2	M2×16mm					

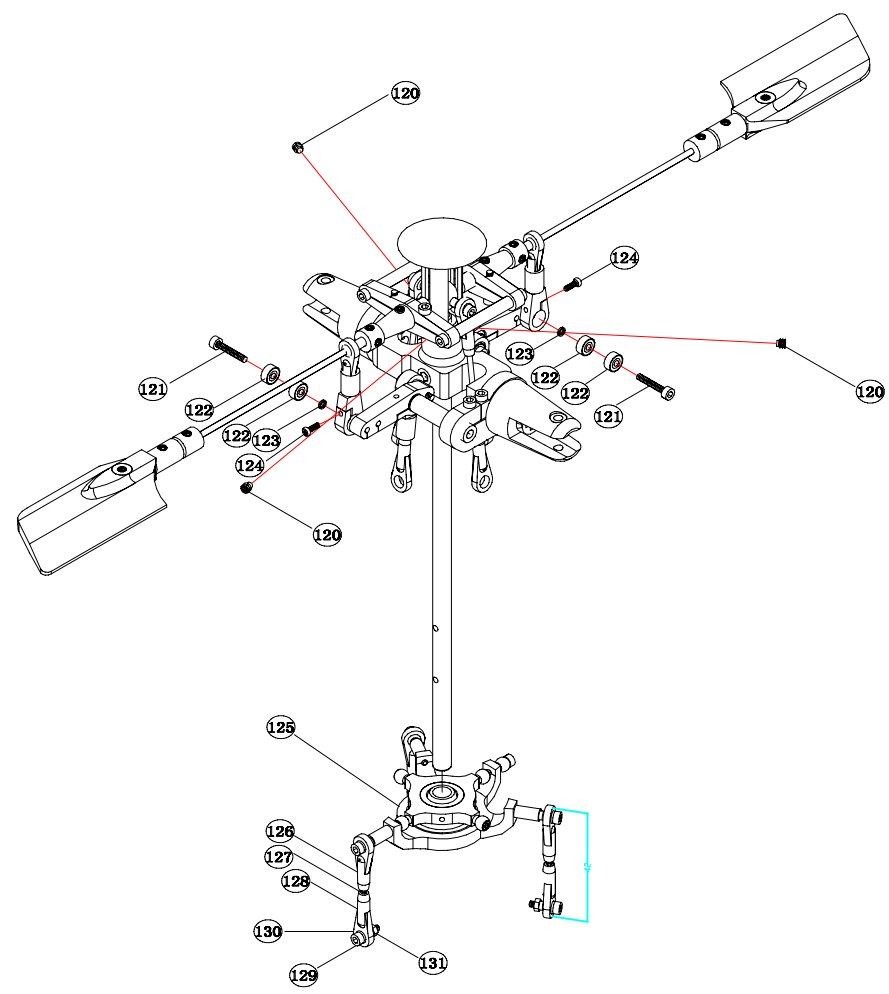


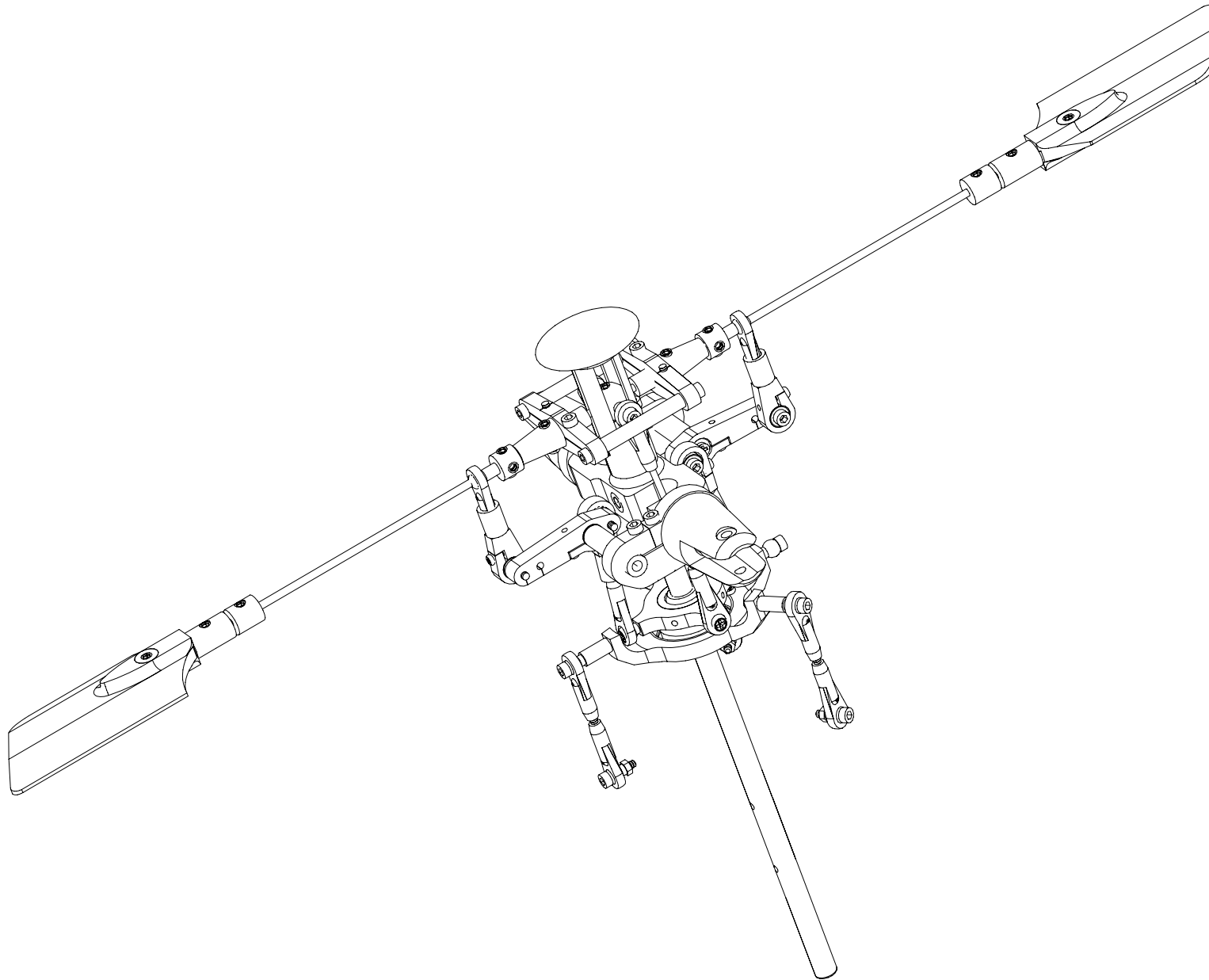




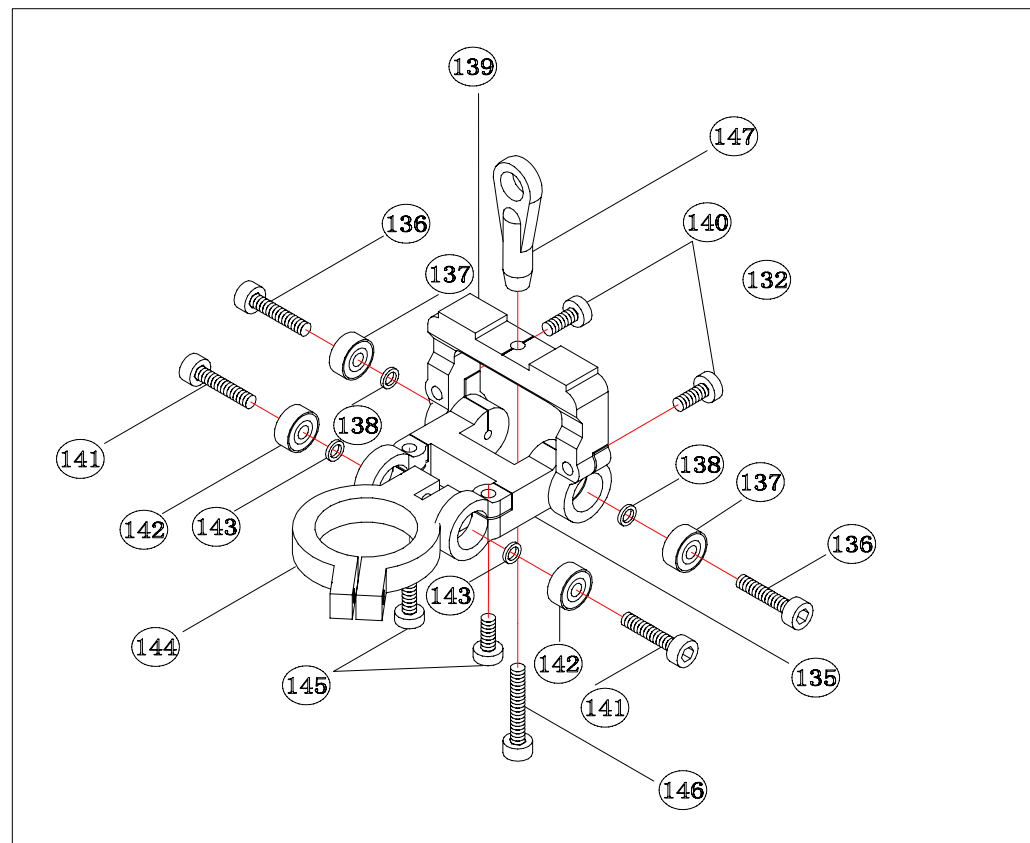
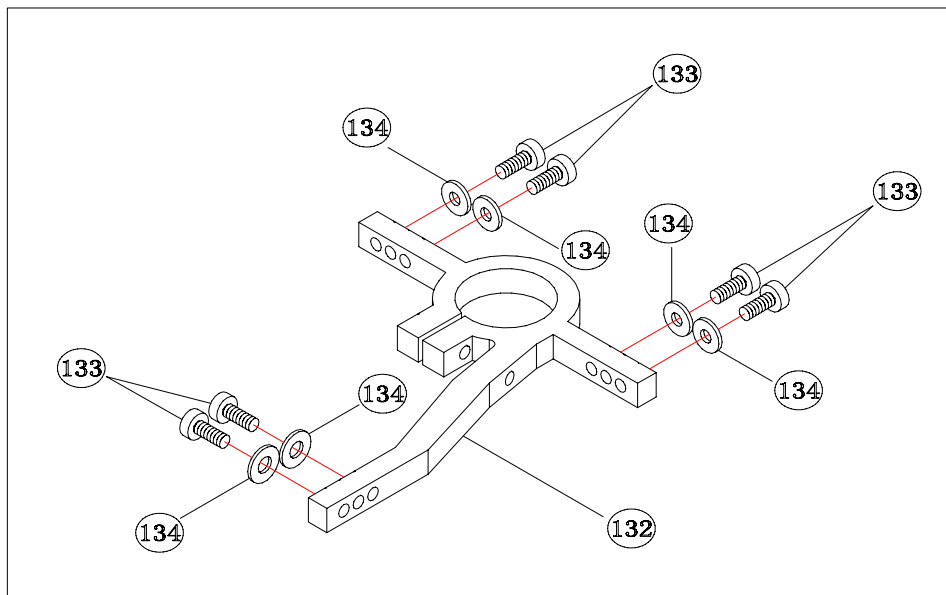


NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
120	SJ20009	Set screw	3	M3×3mm	126	SJ50004	Ball link	3	H20
121	SJ20005	Cap screw	2	M2×10mm	127	HS5005	linkage rod	3	M2×20mm
122	SJ10010	Bearing	4	Ø2×Ø6×2.5mm	128	SJ50004	Ball link	3	H20
123	AL5049	Underlay	2	Ø2×Ø3×0.5mm	129	SJ20004	Cap screw	3	M2×8mm
124	SJ40001	Round head screw	2	M1.6×6mm	130	AL5048	Linkage ball	3	
125	AL5014	Swash plate	1		131	SJ70001	Nut	3	M2

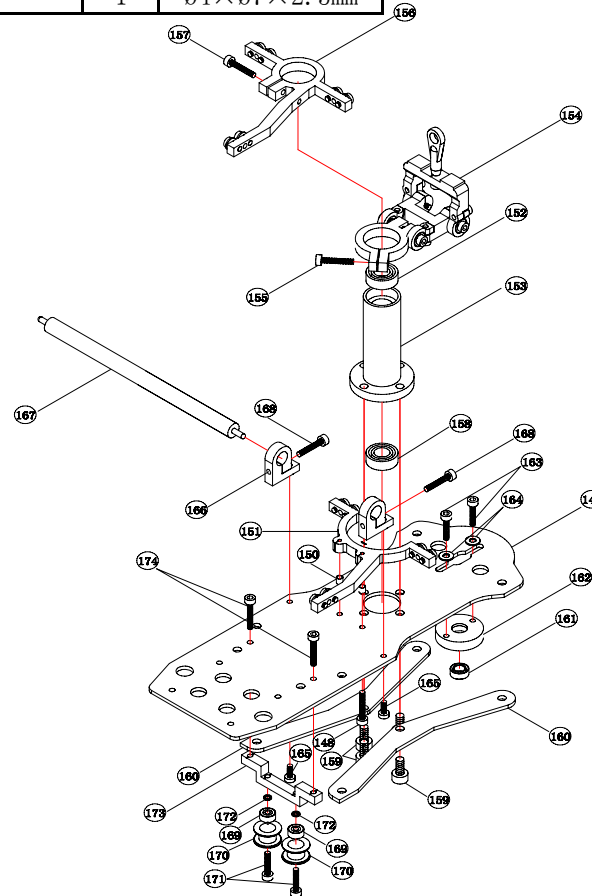




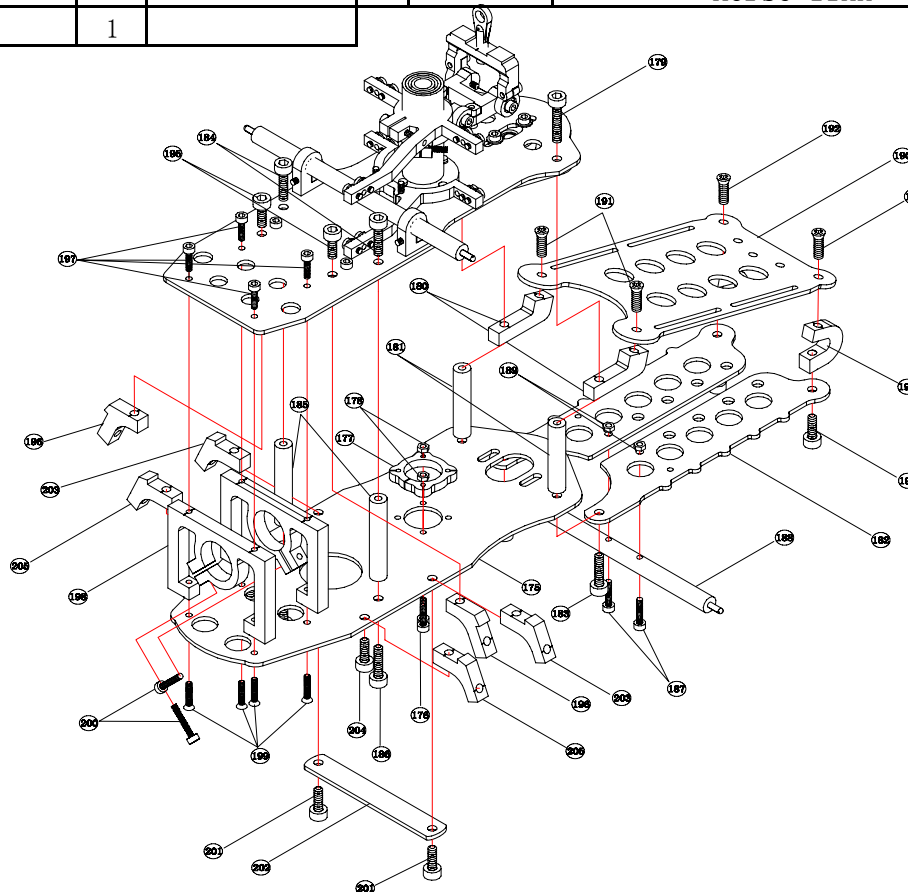
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
132	AL5002	Up sevo mount	1		140	SJ20003	Cap screw	2	M2×5mm
133	SJ20003	Cap screw	6	M2×5mm	141	SJ20004	Cap screw	2	M2×8mm
134	AL5049	Underlay	6	Ø2.5×Ø5.5×0.5mm	142	SJ10010	Bearing	2	Ø2×Ø6×2.5mm
135	AL5001	Swash plate fixing set	1		143	AL5049	Underlay	2	Ø2×Ø3×0.5mm
136	SJ20004	Cap screw	2	M2×8mm	144	AL5001	Swash plate fixing set	1	
137	SJ10010	Bearing	2	Ø2×Ø6×2.5mm	145	SJ20003	Cap screw	2	M2×5mm
138	AL5049	Underlay	2	Ø2×Ø3×0.5mm	146	SJ20005	Cap screw	1	M2×10mm
139	AL5001	Swash plate fixing set	1		147	SJ50004	Ball link	1	H20



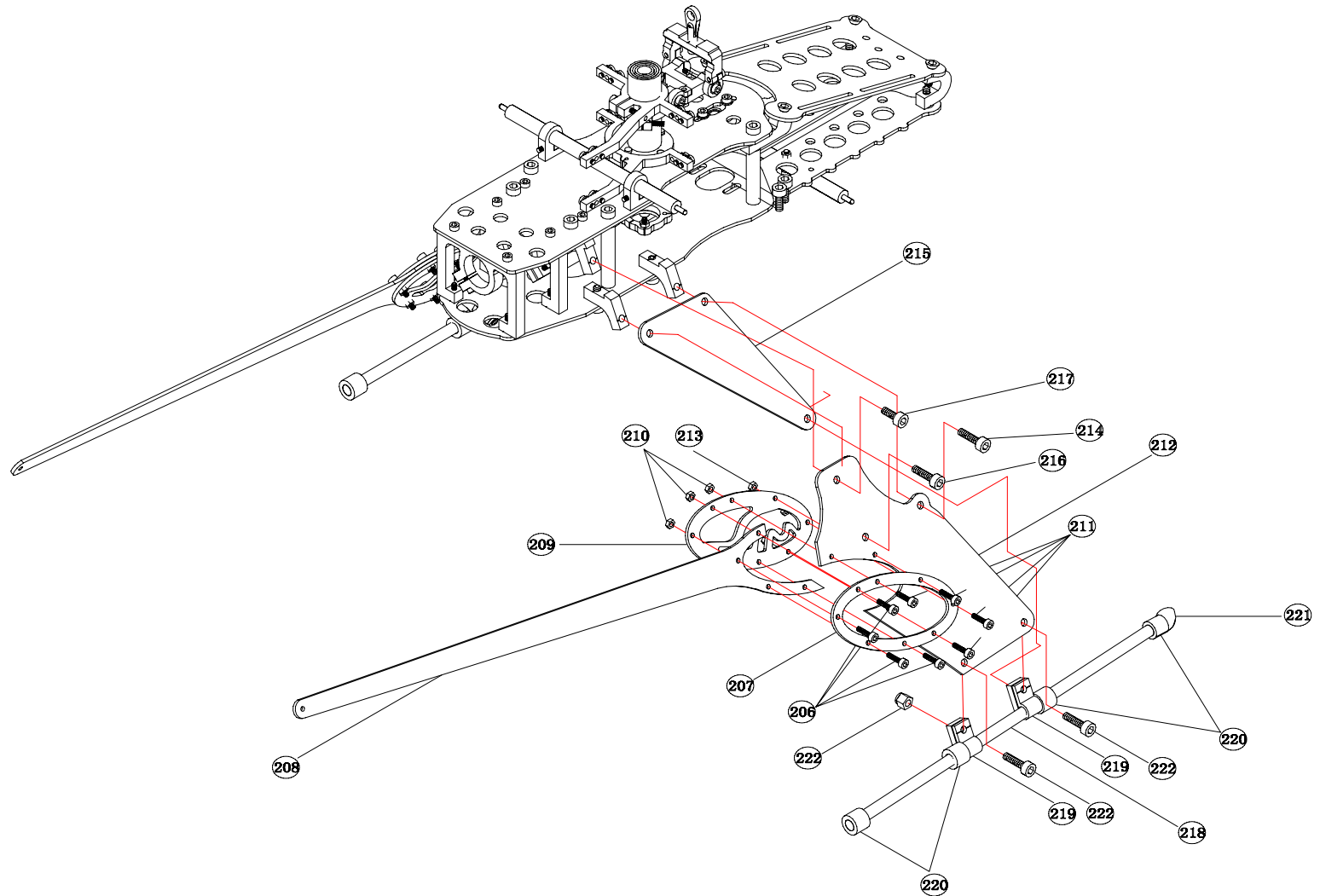
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
148	SJ20005	Cap screw	2	M2×10mm	162	AL5035	Bearing stand over the motor	1	
149	CF5014	Board over main frame	1		163	SJ20004	Cap screw	2	M2×8mm
150	AL5003	Down servo mount washer	2		164	AL5049	Underlay	2	Ø2.5×Ø5.5×0.5mm
151	AL5003	Down servo mount	1		165	SJ20003	Cap screw	2	M2×5mm
152	SJ10014	Bearing	1	Ø6×Ø12×4mm	166	AL5038	Canopy mount stand	1	
153	AL5005	Main shaft stand	1		167	AL5027	Canopy mount	1	
154	AL5001	Swash plate fixing set	1		168	SJ20005	Cap screw	2	M2×10mm
155	SJ20005	Cap screw	1	M2×10mm	169	SJ10010	Bearing	2	Ø2×Ø6×2.5mm
156	AL5002	Up servo mount	1		170	AL5046	Belt idler pulley	2	
157	SJ20005	Cap screw	1	M2×10mm	171	SJ20004	Cap screw	2	M2×8mm
158	SJ10014	Bearing	1	Ø6×Ø12×4mm	172	AL5049	Underlay	2	Ø2×Ø3×0.5mm
159	SJ20013	Cap screw	4	M3×6mm	173	AL5041	Belt idler pulley stand	1	
160	CF5004	Kit strengthen board	2		174	SJ20004	Cap screw	2	M2×8mm
161	SJ10013	Bearing	1	Ø4×Ø7×2.5mm					



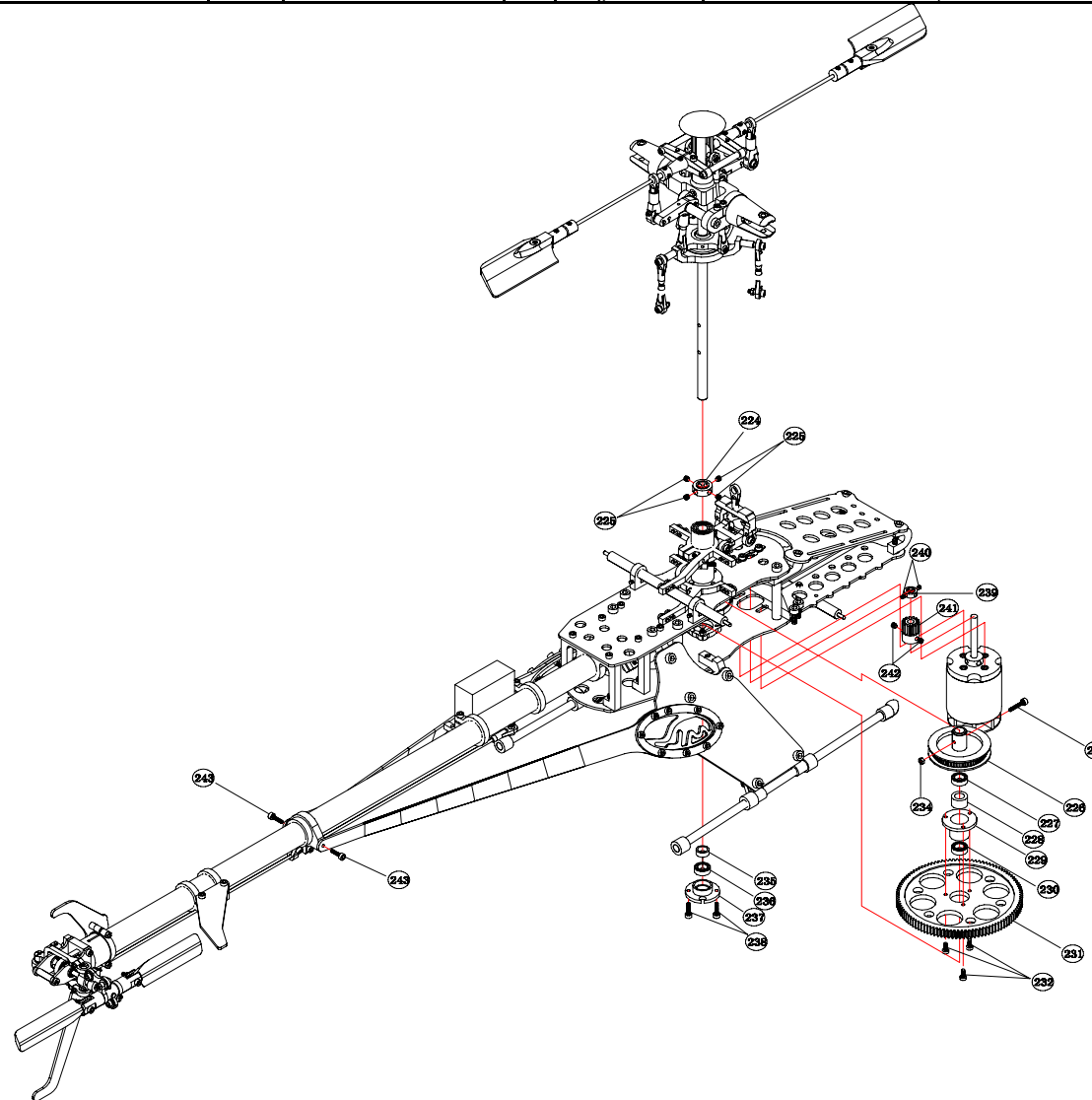
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
175	CF5015	Board under main frame	1		191	SJ30011	Countersunk screw	2	M3×10mm
176	SJ20004	Cap screw	2	M2×8mm	192	SJ30011	Countersunk screw	2	M3×10mm
177	AL5036	Bearing stand lock set under the main shaft	1		193	AL5030	Battery board front link	2	
178	SJ70001	Nut	2	M2	194	SJ20014	Cap screw	2	M3×8mm
179	SJ20017	Cap screw	2	M3×16mm	195	SJ20014	Cap screw	2	M3×8mm
180	AL5029	Battery board link	2		196	AL5031	Horse link	2	
181	AL5033	Front frame board washer	2		197	SJ20004	Cap screw	4	M2×8mm
182	CF5011	ESC board	2		198	AL5006	Tail boom link	2	
183	SJ20015	Cap screw	2	M3×12mm	199	SJ30006	Countersunk screw	4	M2×10mm
184	SJ20015	Cap screw	2	M3×12mm	200	SJ20005	Cap screw	2	M2×10mm
185	AL5032	Back frame board washer	2		201	SJ20014	Cap screw	2	M3×8mm
186	SJ20015	Cap screw	2	M3×12mm	202	CF5008	Down board beam	1	
187	SJ20005	Cap screw	2	M2×10mm	203	AL5031	Horse link	2	
188	AL5027	Canopy mount	1		204	SJ20014	Cap screw	2	M3×8mm
189	SJ70001	Nut	2	M2	205	AL5031	Horse link	2	
190	CF5012	Battery board	1						



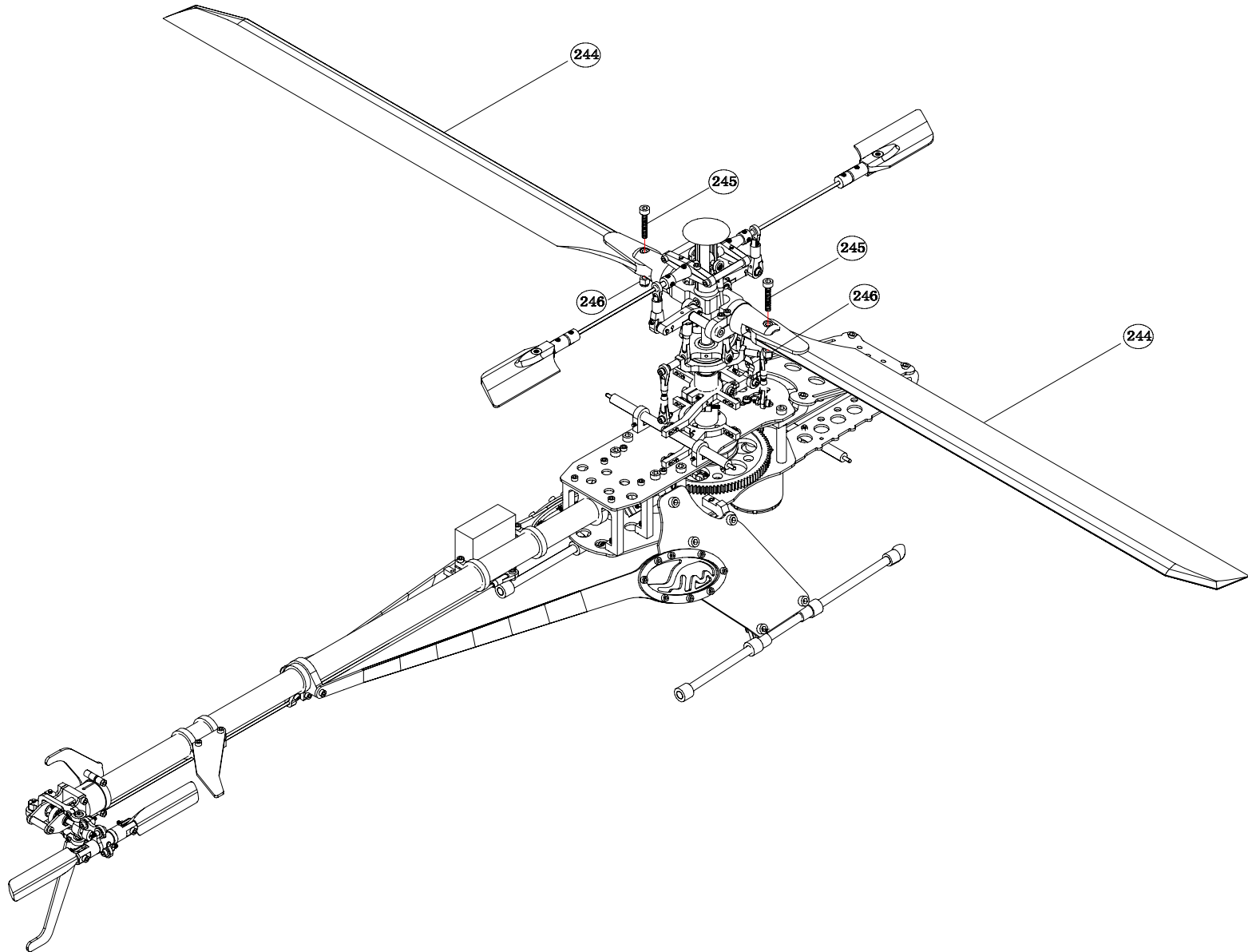
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
206	SJ20004	Cap screw	8	M2×8mm	215	CF5009	Inner horse board	2	
207	CF5006	Horse linkage set (Right)	2		216	SJ20015	Cap screw	2	M3×12mm
208	CF5016	Tail boom support board	2		217	SJ20014	Cap screw	2	M3×8mm
209	CF5005	Horse linkage set (Left)	2		218	SJ50001	Landing skid	2	
210	SJ70001	Nut	8	M2	219	AL5037	Landing skid link	4	
211	SJ20004	Cap screw	8	M2×8mm	220	SJ50002	Landing skid rubber	8	
212	CF5013	Horse board	2		221	AL5028	Skid pipe lever	2	
213	SJ70001	Nut	8	M2	222	SJ20015	Cap screw	4	M3×12mm
214	SJ20015	Cap screw	2	M3×12mm	223	SJ70003	Nut	4	M3



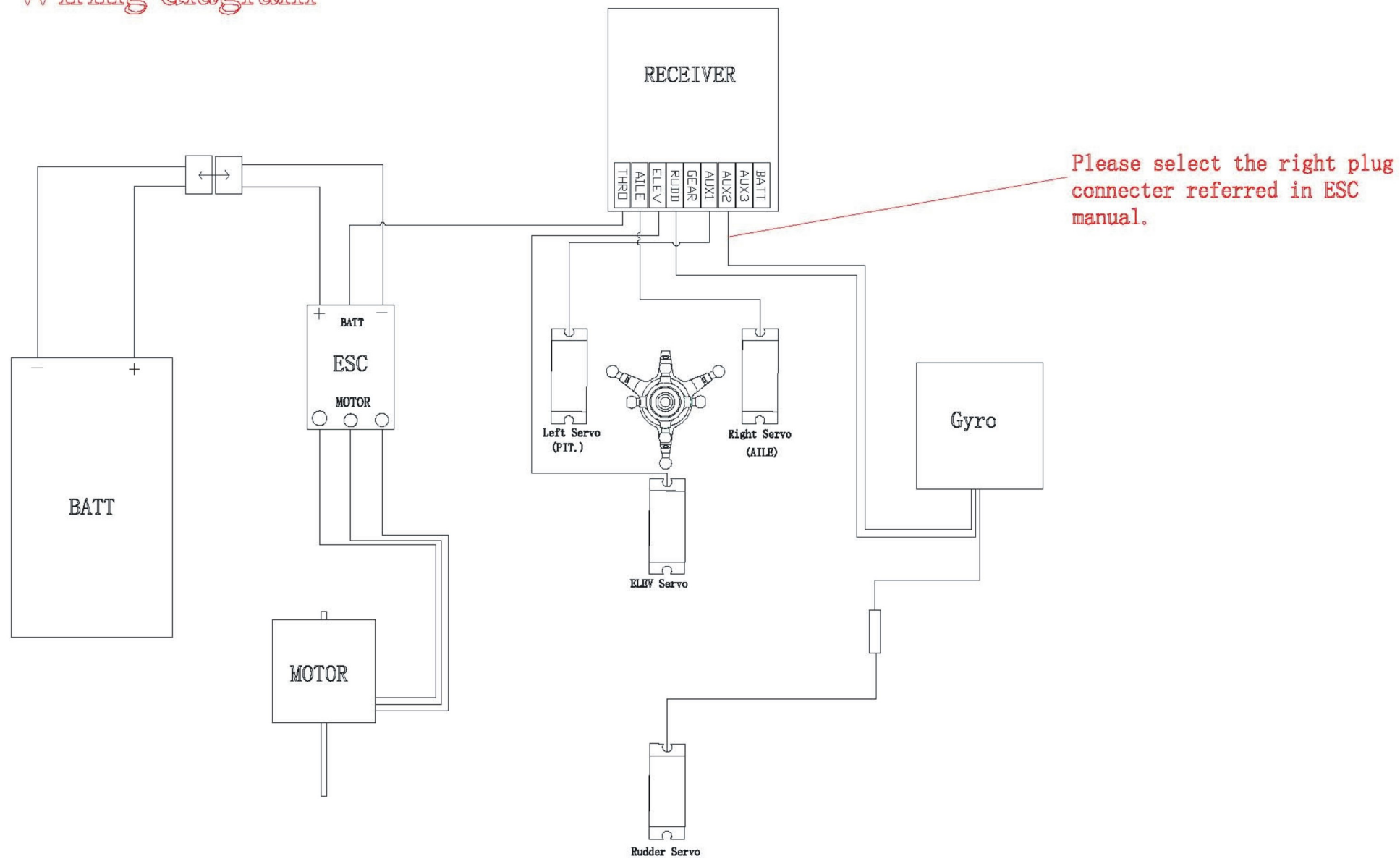
NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
224	AL5034	Main shaft confining	1		234	SJ70001	Nut	1	M2
225	SJ20009	Set screw	4	M3×3mm	235	AL5025	Bearing stand under main shaft washer	1	Ø6×Ø8×3mm
226	CL5002	Autorotation tail drive gear	1		236	SJ10012	Bearing	1	Ø6×Ø10×3mm
227	SJ10012	Bearing	1	Ø6×Ø10×3mm	237	AL5025	Bearing stand under main shaft	1	
228	SJ10016	One-way Bearing	1	Ø6×Ø10×8mm	238	SJ20004	Cap screw	2	M2×8mm
229	AL5024	One-way Stand	1		239	AL5045	Motor confining set	1	
230	SJ10012	Bearing	1	Ø6×Ø10×3mm	240	SJ20009	Set screw	2	M3×3mm
231	CL5003	Main gear	1		241	CL5004	Motor gear	1	
232	SJ20003	Cap screw	3	M2×5mm	242	SJ20009	Set screw	2	M3×3mm
233	SJ20005	Cap screw	1	M2×10mm	243	SJ20004	Cap screw	1	M2×8mm



NO.	part No	Discription	Q' TY	Specification	No	part No	Discription	Q' TY	Specification
244	FG5003	FG main blade	2		246	SJ70003	Nut	2	M3
245	SJ20018	Cap screw	2	M3×18mm					



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.

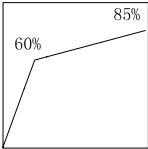
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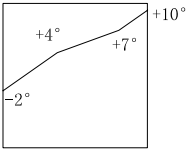
V Turn on the transmitter, and the electricity on the heli.(before the adjustment has been finished, do not wire the motor. Switch on the servos.
(1) Check whether the right and left tail blades are at the same angle. You can move central connector of tail rotor to adjust them at the same angle (after 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.

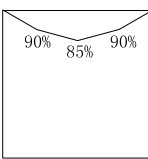
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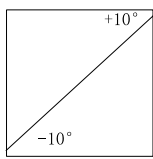
VI Switch on the transmitter and the heli’s electricity, push the gun in the center (PIT.50%).Fix the 3 ccpm servo arms according to the page of linkage rod adjustment and the explanation, and keep the servo arm level and the linkage rod 90 degree with it.

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

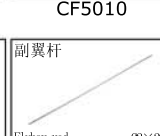
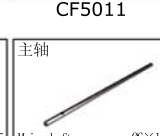
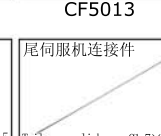
Rate:
0:40%

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)

零配件 OPTIONAL SPARE PARTS

 Swash plate fixing set AL5001	 Up servo mount AL5002	 Down servo mount AL5003	 Flybar mixing arm set subassembly AL5004	 Main shaft stand AL5005	 Tail boom link AL5006	 Main blade clincher AL5007	 Main blade clincher arm AL5008	 Main blade clincher link AL5009
 Main blade clincher center AL5010	 Flybar stand AL5011	 Flybar copper ball AL5012	 Mixing arm AL5013	 Swash plate AL5014	 Tail angel adjusting set AL5015	 Sliding shaft set AL5016	 Tail unit housing AL5017	 Tail angel adjusting joint AL5018
 Tail blade clincher AL5019	 Tail blade center AL5020	 Tail servo mount AL5021	 Tail boom support AL5022	 Connecting rod rest AL5023	 One-way bearing stand AL5024	 Bearing stand under main shaft AL5025	 Brake disk AL5026	 Canopy mount AL5027
 Skid pipe lever AL5028	 Battery board link AL5029	 Battery board front link AL5030	 Horse Link AL5031	 Back frame board washer AL5032	 Front frame board washer AL5033	 Main shaft confining ring AL5034	 Bearing stand over the motor AL5035	 Bearing stand lock set under the main shaft AL5036
 Landing skid link AL5037	 Canopy mount stand AL5038	 Level blade bracket AL5039	 Flybar paddle bracket AL5040	 Belt idler pulley stand AL5041	 Linkage rod parts AL5042	 Copper ingot AL5043	 Copper ingot AL5044	 Motor confining set AL5045
 Belt idler pulley AL5046	 Flybar linkage ball AL5047	 Linkage ball AL5048	 Underlay AL5049	 Flybar paddle CF5001	 Tail blade CF5002	 Tail unit housing side board CF5003	 Kit strengthen board CF5004	 Horse Linkage set (Left) CF5005
 Horse linkage set (Right) CF5006	 Level blade CF5007	 Down board beam CF5008	 Inner horse board CF5009	 Vertical blade CF5010	 ESC board CF5011	 Battery board CF5012	 Horse board CF5013	 Board over main frame CF5014
 Board under main frame CF5015	 Tail boom support board CF5016	 Landing skid SJ50001	 Landing skid rubber SJ50002	 Flybar rod 02×295 HS5001	 Main shaft 06×175 HS5002	 Tail shaft 03×48.5 HS5003	 Tail servo link 01.7×360 HS5004	 CF tail boom 015×460 CF5017
 Upgrade tail boom 015×540 SJUP5001	 Linkage rod 02×16, 02×20, 02×40, 02×50 HS5005	 Belt SJ50003	 Upgrade belt SJUP5002	 Canopy FG5001	 Canopy (finished) FG5002	 FG main blade FG5003	 Tail shaft belt gear CL5001	 Autorotation tail drive gear 53T CL5002
 Main drive gear 125T CL5003	 Motor gear (孔径6, 13T) CL5004	 Motor gear (孔径6, 14T) CL5005	 Ball link H20 SJ50004	 Bearing 2×5×1.5 SJ10004	 Bearing 2×6×2.5 SJ10010	 Bearing 5×10×4 SJ10011	 Bearing 6×10×3 SJ10012	 Bearing 4×7×2.5 SJ10013
 Bearing 6×12×4 SJ10014	 Flange bearing 3×8×3 SJ10015	 One-way bearing 6×10×8 SJ10016	 Cap screw M2×5 SJ20003	 Cap screw M2×8 SJ20004	 Cap screw M2×10 SJ20005	 Cap screw M2×12 SJ20011	 Cap screw M3×6 SJ20013	 Cap screw M3×8 SJ20014
 Cap screw M3×12 SJ20015	 Cap screw M2×16 SJ20006	 Cap screw M3×16 SJ20016	 Cap screw M3×16 SJ20017	 Cap screw M3×18 SJ20018	 Cap screw M2×20 SJ20019	 Set screw M3×3 SJ20009	 Countersunk screw M2×10 SJ30006	 Feathering shaft screw M5×25 SJ30010
 Countersunk screw M3×10 SJ30011	 Ball link screw M2×10 SJ30012	 Ball link screw M2×8 SJ30013	 Round head screw M1.6×6 SJ40001	 Round head screw M1.6×4 SJ40002	 Nut M2 SJ70001	 Anti-loose nut M3 SJ70003	 Motor T5001	 High-speed steel cap wrench T5001
 Stainless steel washer AL5050	 Battery							