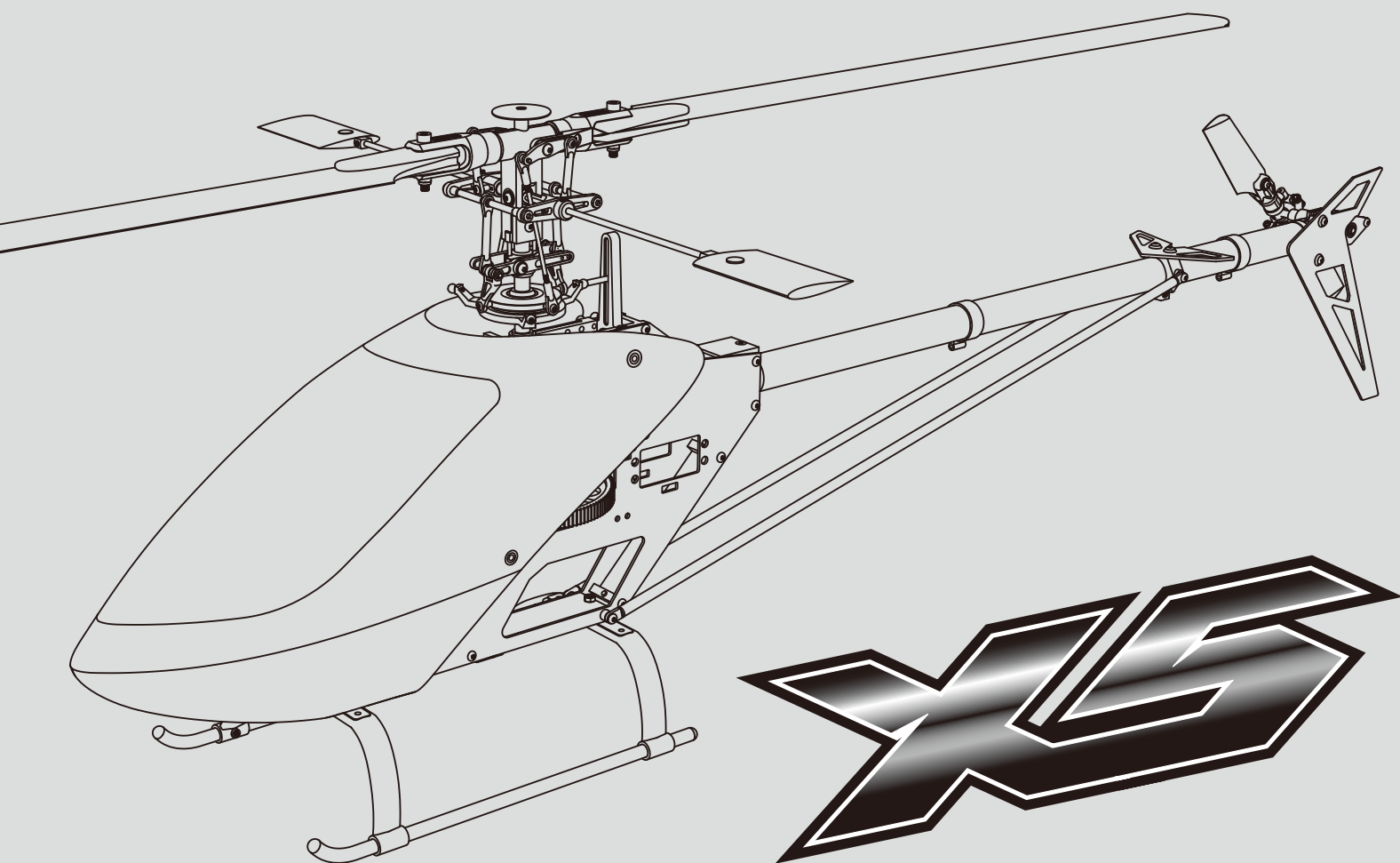


GAUI

ASSEMBLY INSTRUCTION



Get the latest manual:

We are highly recommending you to get the latest version of the manual. Please visit Gaii web site to download a copy and use that copy to replace this one.

取得最新的手冊：

我們非常建議您取得最新版本的手冊。

請到泰世網站下載最新的手冊，並且取代目前的手冊。

<http://www.gaii.com.tw>

V1.0.5.3

Forward / Safety Precautions / Check List Before First Flight / Notes for Assembly

前言、安全注意事項、飛行前注意事項、組裝注意事項

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Thank you for purchasing GAUI X5 High Performance RC Helicopter from Tai Shih Hobby Corporation (TSH). We hope you will enjoy the joy of flight.

感謝您購買泰世科技出品的 GAUI X5高性能遙控直升機，我們希望您可以盡情享受飛行的樂趣。

In order to understand full assembly sequences, this instruction manual show the assembly information of this model, even though some elements are supplied as pre-assembled. Please refer to it when carrying out maintenance or replacing parts.

為了要讓使用者詳細瞭解組裝順序，即使有些部件已經預先組裝完成，本說明書將提供這台遙控模型的組裝資訊。同時，敬請參閱保養與主要零件更換資訊。

CAUTION: This radio controlled helicopter is not a toy.

警告：這台遙控直升機不是玩具

SAFETY PRECAUTIONS

This kit includes some preassembled components. Please check for any loose screws and tighten them before you proceed with assembly.

You are responsible for assembly, safe operation, maintenance, inspection and adjustment of the model.

Before beginning assembly, please read these instructions thoroughly.

Check all parts. If you find any defective or missing parts, contact your local dealer or GAUI TSH distributor.

Before you proceed to RC helicopter activity, please check and follow thoroughly related regulation of aero modeling in your country/region.

安全資訊與注意事項

這台遙控模型包含預先組合完成的部件。

在進行組裝之前，請仔細檢查這些預先組裝部件上的所有螺絲均有仔細鎖緊。

您有完全的責任對於這台遙控模型的組裝，安全操作，保養，檢查與調整。

請先檢查所有的零件，如果發現任何不良品，遺失品，請向模型店或是當地的泰世代理商連絡。

在您進行遙控直升機活動時，請先詳細瞭解與遵守當地遙控模型的相關法規。

LIABILITY DISCLAIMER

This product is for a radio controlled (RC) helicopter.

Improper operation, maintenance or assembly can potentially cause a RC helicopter to pose a danger to persons or objects including but not limited to the possibility of causing serious physical injury and even death.

Moving components can present a hazard to operators, and anyone or anything that could be in the flying area of the RC helicopter.

Under no circumstance should a minor be allowed to operate this RC helicopter without the approval, monitor and direction of his parent or legal guardian who takes full responsibility for all of the minor's actions.

This product is intended for being operated by experienced mature radio control helicopter pilots under controlled safety conditions and on locations properly authorized and setup for safe flying and away from other people.

Do not operate an RC helicopter within the vicinity of residences, trees, electrical power lines during inclement weather or near crowds of people.

The manufacturer and/or its distributors assume no responsibility or liability whatsoever for any damages including but not limited to ones generated by incidental or consequential damages.

The operator of the helicopter assumes all responsibility and liability that results from the correct or incorrect operation of the helicopter.

After leaving its facilities, the manufacturer has no way of maintaining control or monitor over the assembly, maintenance and/or operation of the helicopter.

免責聲明

這個產品是無線遙控的直升機。

不當的操作，保養或是組裝有可能導致遙控直升機對於人身或是物品造成危險。

包括，但是不局限於對於人體產生嚴重傷害甚至死亡的可能性。

所有的移動部件可能對於操作的使用者，旁人或是這台遙控直升機飛行場的任何人或物品產生傷害。

未成年的人如果要操作這台遙控直升機需要父母或是監護人的同意，

並在監督與指導下才能進行操作並遠離周遭障礙物及人群等，其父母或是監護人需負起所有責任與法律責任。

以下場合與情況禁止操作遙控直升機：居家房屋附近、天候不佳時、非空曠區域、樹木、電線竿等場合或是人群附近。

製造廠商與其經銷商都不對於所有的傷害，包含但是不局限於偶然或是連續發生的傷害負擔任何責任。

本產品的使用者要對於正確地或是不正確地操作的結果需負擔所有責任與法律責任。

本產品一但離開製造廠商的控制範圍外，製造廠商無法對於下列事項保持監督與控管：組裝，保養，維修與操作這台遙控直升機。

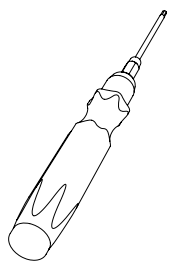
For United States market, The Academy of Model Aeronautics (AMA) is a national organization representing modelers in the United States. Please refer the National Model Aircraft safety code from Academy of Model Aeronautics. And we've partially reprinted rules that are especially pertinent for radio controlled flight as below:

RADIO CONTROL

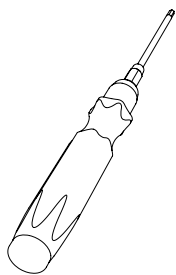
1. All pilots shall avoid flying models over unprotected people.
2. I will complete a successful radio equipment ground-range check in accordance with the manufacturer's recommendations before the first flight of a new or repaired aircraft.
3. At all flying sites a safety line or lines must be established, in front of which all flying takes place. Only personnel associated with flying the model aircraft are allowed at or in front of the safety line.
In the case of air shows or demonstrations a straight safety line must be established. An area away from the safety line must be maintained for spectators. Intentional flying behind the safety line is prohibited.
(See AMA Document #706 for Recommended Field Layout.)
4. I will operate my model aircraft using only radio-control frequencies currently allowed by the Federal Communications Commission (FCC).
Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
5. I will not knowingly operate my model aircraft within three (3) miles of any preexisting flying site without a frequency-management agreement.
(See AMA Document #922 for Testing for RF Interference. See AMA Document #923 for Frequency Management Agreement.)
6. With the exception of events flown under official AMA Competition Regulations rules, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the flight line.
7. Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual. This does not apply to model aircraft flown indoors.
8. Radio-controlled night flying requires a lighting system that provides the pilot with a clear view of the model's attitude and orientation at all times.
9. The operator of a radio-controlled model aircraft shall control it during the entire flight, maintaining visual contact without enhancement other than by corrective lenses that are prescribed for the pilot. First-Person View (FPV) flying may only be conducted in accordance with the procedures outlined in AMA Document #550.

These special codes and appropriate documents may be obtained either from the AMA Web site at www.modelaircraft.org or by contacting AMA headquarter.

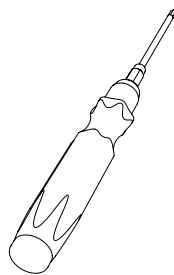
Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302
Phone (800) 435-9262
Fax (765) 741-0057



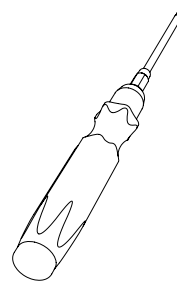
2.0mm Hexagon Screw Driver
2.0mm 六角螺絲起子



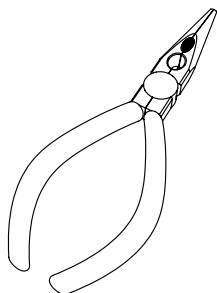
3.0mm Hexagon Screw Driver
3.0mm 六角螺絲起子



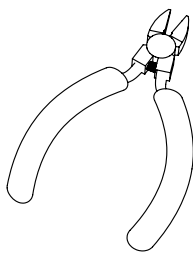
2.5mm Hexagon Screw Driver
2.5mm 六角螺絲起子



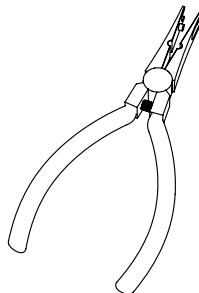
3.5mm Hexagon Screw Driver
3.5mm 六角螺絲起子



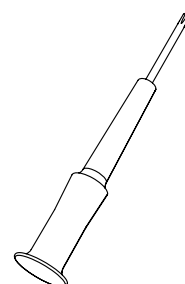
Needle-nosed pliers
尖嘴鉗



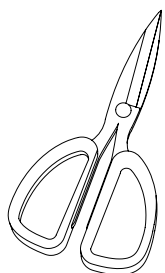
Diagonal cutting plier
斜口鉗



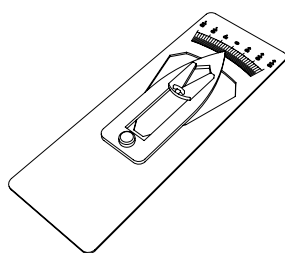
Ball Link Plier
拔豆鉗



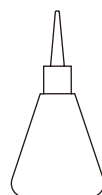
Philips Screw Driver
十字螺絲起子



Scissors
剪刀



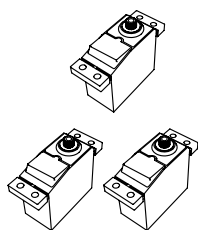
Dial Pitch Gauge
主旋翼螺距規



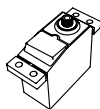
CA
瞬間膠



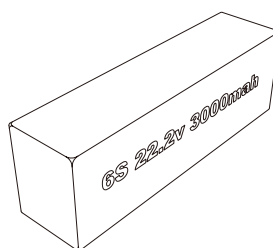
Thread Lock
螺絲止鬆劑



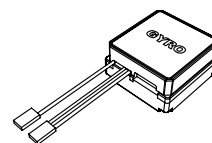
CCPM Servo x3pcs
CCPM伺服機x3個



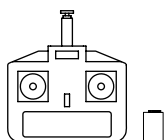
Tail Specialized Servo x1pcs
尾舵伺服機x1個



Battery 6S 22.2v 3000mah
鋰聚電池6S 22.2v 3000mah



GYRO
陀螺儀



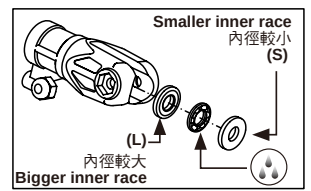
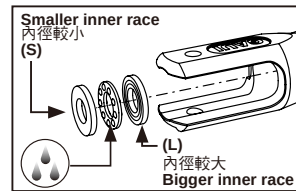
Transmitter (6-channel or more,
helicopter system)
六動以上接收機&發射機



Lubricant
潤滑油



Use the thread-lock adhesive if the screws are tightened to the metal parts.
組裝時如遇螺絲鎖於金屬件，請適量使用 螺絲止鬆劑以確保飛行安全！
Use the thread-lock adhesive on the tip of screw for 1mm width.
螺絲止鬆劑 上膠位置約為螺紋前端1mm寬度。



Code Letter/Number (#A,#B,#C...,1,2,3...) used in each figure indicates the specific part in that figure only, please refer to the parts list for the actual item numbers. Code Letter/Number is only for the reference in assembly.

每一個插圖中的代號(#A, #B, #C...1, 2, 3...)僅代表該插圖中的某一零件，同一插圖中若有相同尺寸之零件，會以相同代號代表，插圖代號僅供組裝參考用。

① ② ③ ④ ⑤

#A #B #C #D #E

⑥ ⑦ ⑧ ⑨ ⑩

#F #I #J #G #H

Make sure to assemble the parts as shown in figure above, incomplete/incorrect assembly may cause the control failure during flight.

以上圖示，於組裝時請確實注意，避免組裝後試飛造成失控零件鬆脫等情況發生。

Mark 類別	indication 標示 (mm)
B-Bearing	B(Dia.in)x(Dia.out)x(Thickness)
B-軸承	B (內徑) X (外徑) X (厚度)
Ø-Tap Screw	Ø(Dia.out)x(Length)
Ø-粗牙螺絲	Ø (外徑) X (長度)
M-Machine Screw	M(Dia.out)x(Length)
M-公制螺絲	M (外徑) X (長度)
P-tube	P(Dia.in)x(Dia.out)x(Length)
P-柱狀體	P (內徑) X (外徑) X (長度)
Pillar	P(Dia.out)x(Length)
P-柱狀體	P (外徑) X (長度) X (實心柱)
N-Nut	N(Dia.in)x(Width) L-Lock nut
N-螺母	N (外徑) X (長度)
W-Washer	W(Dia.in)xDia.out)x(Thickness)
W-華司	W (內徑) X (外徑) X (厚度)

Gear Ratio 齒輪傳動比: 8 : 1 : 4.07 (E.M.T)

Main rotor speed 2525 rpm Tail rotor speed 10960 rpm

Overall Length (with Canopy):1000Specifications	機身長(含艙罩):1000 mm
Flybar Paddle:64x40x5mm	平衡翼尺寸:64x40x5 mm
Main Rotor Diameter:1120mm	主旋翼迴轉直徑:1120 mm
Main rotor blades:500 ~ 530mm	主旋翼長度:500 ~ 530mm
Overall Height:343mm	機身高度:343 mm
Overall Width:165mm	機身寬度:165 mm
Tail Blade Length:82mm	尾旋翼葉片長度:82 mm
Tail Rotor Diameter:235mm	尾旋翼迴轉直徑:235 mm
Flying duration: 4 ~ 5 minutes with	飛行時間: 4 ~ 5分鐘
Power System(Recommended):	動力系統(原廠建議):
Motor -- 910KV	馬達 910KV
ESC 100A ESC	電子變速器 100A ESC
6S1P(22.2v/4200mah)	使用鋰聚電池:6S1P(22.2v / 4200mah)
Total weight: 1900g ±3% (Equipped with Blades and all electronic gears except Battery).	全配重量:1900g ±3% (全套含電子裝備不含電池)
Gear Ratio 齒輪傳動比列表	Standard Equipment 標準配備
13T Steel Pinion Gear (E.M.T) 9.2 : 1 : 4.07 = 2195 rpm	208791 - X5 Steel Pinion Gear Pack (15T- for 5.0mm shaft) X5 鋼製馬達齒15T(孔徑5.0mm)
14T Steel Pinion Gear (E.M.T) 8.6 : 1 : 4.07 = 2349 rpm	208903 - 61T Gear (Set of 2) 61T齒輪(2件組)
15T Steel Pinion Gear (E.M.T) 8 : 1 : 4.07 = 2525 rpm	208381 - Front drive gear set and Pulley Shaft with Steel Gear (15T) 尾傳動導輪軸(15T)附傘齒組
16T Steel Pinion Gear (E.M.T) 7.5 : 1 : 4.07 = 2693 rpm	208601 - (GUEC GM-601)Brushless Motor (1820W-910kv) (GUEC GM-601)無刷馬達(1820W-910kv)
Tail Speed: 10960 rpm	208901 - 120T Main Gears 120T主齒盤

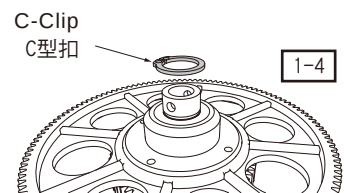
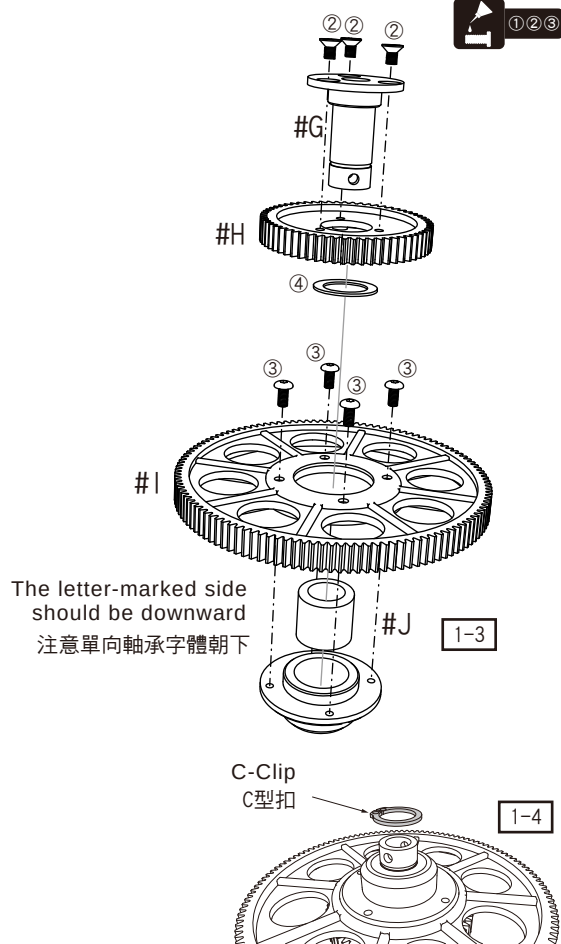
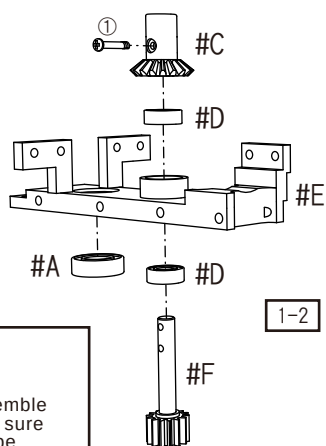
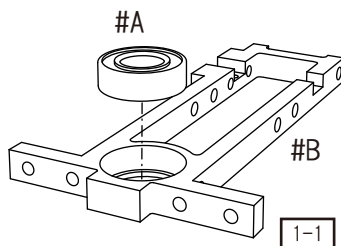
Important : The gear ratio, motor and battery should be set properly if the power system changed!!

注意:更改動力系統請注意電池電壓，馬達KV值及減速比 的關係來做搭配。

- #A #208761 Ball Bearings Pack (8x16x5)x3
軸承 (8x16x5)x3
- #B #208355 X5 CNC Upper Servo Mount
X5 CNC上伺服機座 (亮銀)
- #C #208920 Torque Tube Front Gear Set
尾軸傳動前齒輪組
- #D #208760 Ball Bearings Pack (5x11x4)x4
軸承 (5x11x4)x4
- #E #208356 X5 CNC Lower Servo Mount
X5 CNC下伺服機座
- #F #208381 Front drive gear set and
Pulley Shaft with Steel Gear (15T)
尾傳動齒輪組 (15T) 附牽齒組
- #G #208360 X5 One Way Sleeve Set
X5 單向鋼套
- #H #208903 61T Gear (Set of 2)
61T齒輪 (2件組)
- #I #208901 120T Main Gear
120T主齒盤
- #J #208753 One Way Bearing (12x18x16)
單向軸承 (12x18x16)

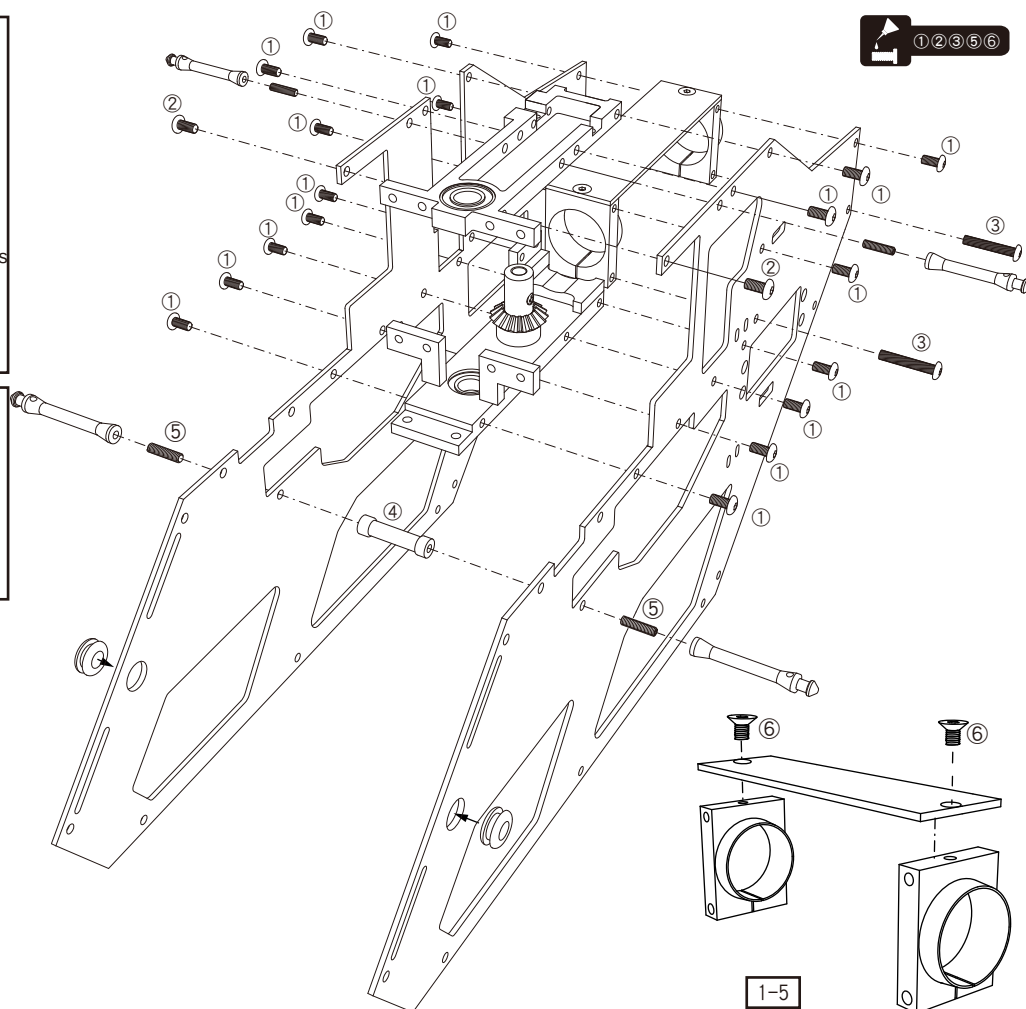
- ① M2X8 Machine screws
公制螺絲
- ② M3X6 Socket head machine screws
公制六角螺絲
- ③ M3X8 Socket head machine screws
公制六角螺絲
- ④ W12. 2X17X0.2 Washer
華司

1. Assemble the bearing and Uper Servo Mount(1-1).
 2. Exactly assemble the bearings to the Lower Servo Mount(1-2).
 3. Assemble the one way sleeve and 61T Main Gear, assemble the 61T Main gear Asembly and other parts(1-3). Make sure the letter-marked side of the One Way Bearing should be downward.
 4. After all parts in figure 1-3 is assembled, clip C-Clip to the One Way Sleeve(1-4), make sure to tighten the screws of ② and ③.
1. 將軸承組合至 #B (1-1)。
2. 組裝 #E 請將軸承確實裝入軸承孔內 (1-2)。
3. 組合齒盤時先將61T齒盤組至單向鋼套，再組裝120T齒盤並注意單向軸承字體方向 (1-3)。
4. 主齒盤組裝完成後請務必將C型扣，扣入單向鋼套 (1-4)。
- 請注意②、③螺絲務必鎖緊並注意不可滑牙。



- ① M3X6 Socket head machine screws
公制六角螺絲
- ② M3X4 Socket head machine screws
公制六角螺絲
- ③ M3X18 Socket head machine screws
公制六角螺絲
- ④ P3X4. 8X23. 5 Tube
柱狀體
- ⑤ M3X12 Socket set screws
止付螺絲
- ⑥ M3X6 Socket head machine screws
公制六角螺絲

1. Assemble the Boom Mount(1-5) and main frame set as shown in right figure.
 2. Do not tighten the screws of ③ until the Tail Boom Assembly is assembled as shown on page 10.
1. 先將 (1-5) 組裝完成再將上圖組裝完成的金屬件組裝至側板。
2. ③螺絲配合P. 10組裝完成後再鎖緊。



#A #208970
#B #208370

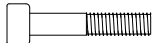
X5 Brace Set
X5 支撐架組
Skid Set
滑機組

① M3X10



Socket head machine screws
公制六角螺絲

② M3X16



Socket head machine screws
公制六角螺絲

③ M3X3



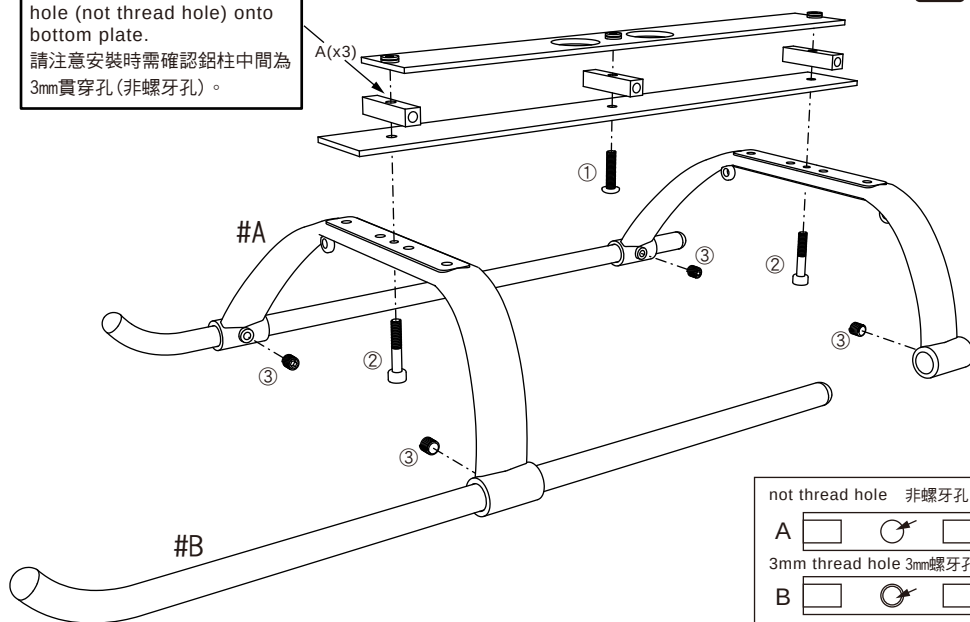
Socket set screws
止付螺絲

Attache the screws ② but do not tighten them until the main frame set is assembled as in figure below.

將②螺絲含上並配合下圖組裝時再將②螺絲鎖緊。

Install the ALU square posts which come with 3mm middle hole (not thread hole) onto bottom plate.

請注意安裝時需確認鋁柱中間為3mm貫穿孔(非螺牙孔)。



#A #208362

X5 Tail Supporter Pipes
(Silver anodized)
X5 CNC支撐桿(亮銀)

① M3X6



Socket head machine screws
公制六角螺絲

② M3X6



Socket head machine screws
公制六角螺絲

③ M3X14



Socket head machine screws
公制六角螺絲

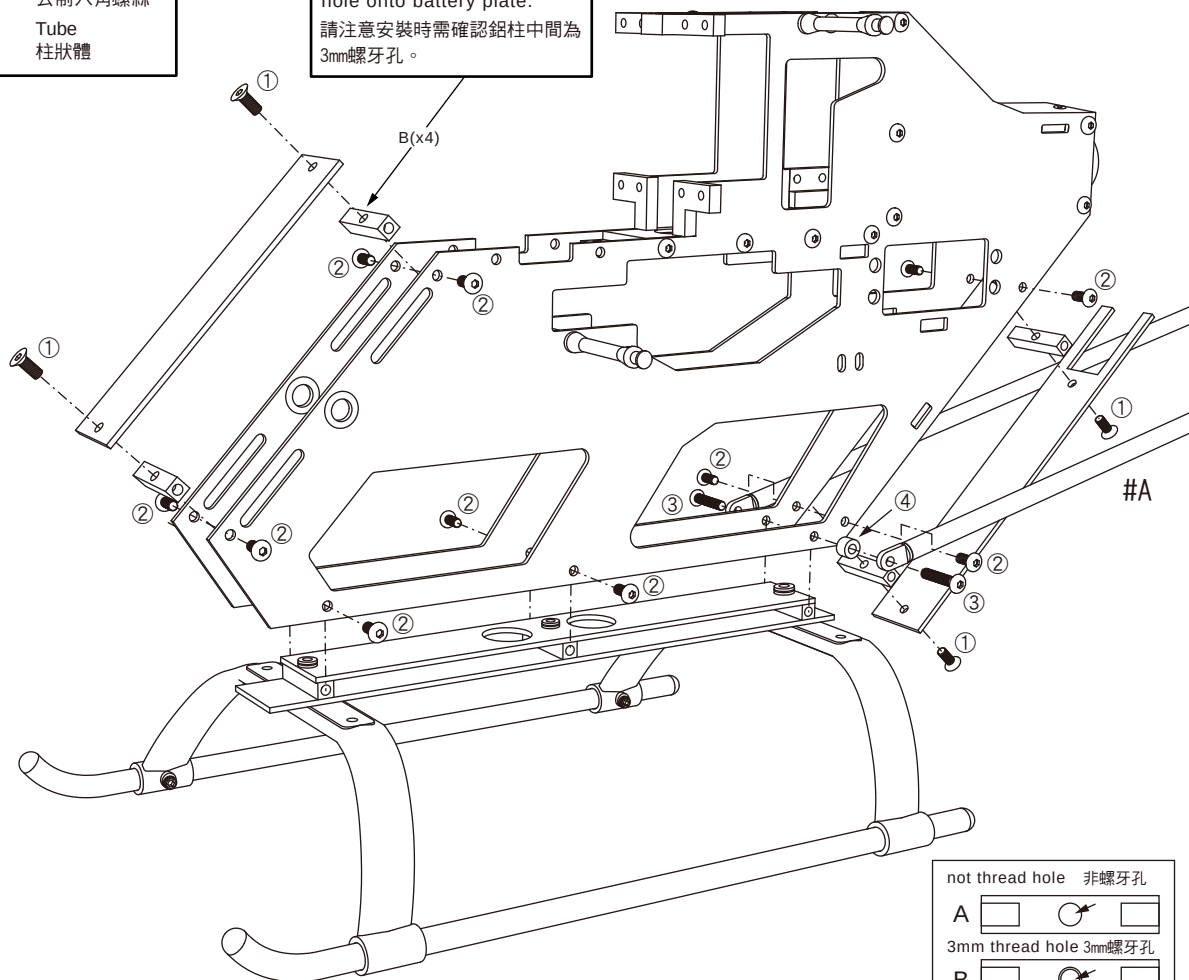
④ P3X6X4



Tube
柱狀體

Install the ALU square posts which come with 3mm thread hole onto battery plate.

請注意安裝時需確認鋁柱中間為3mm螺牙孔。



#A #208357

X5 Main Masts (8mm)
X5 主軸 (8mm)

① M3X3

止付螺絲
Socket set screws

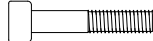
② P8X13X2

Washer
華司

③ N3X5.5L

Nut
螺母

④ M3X16

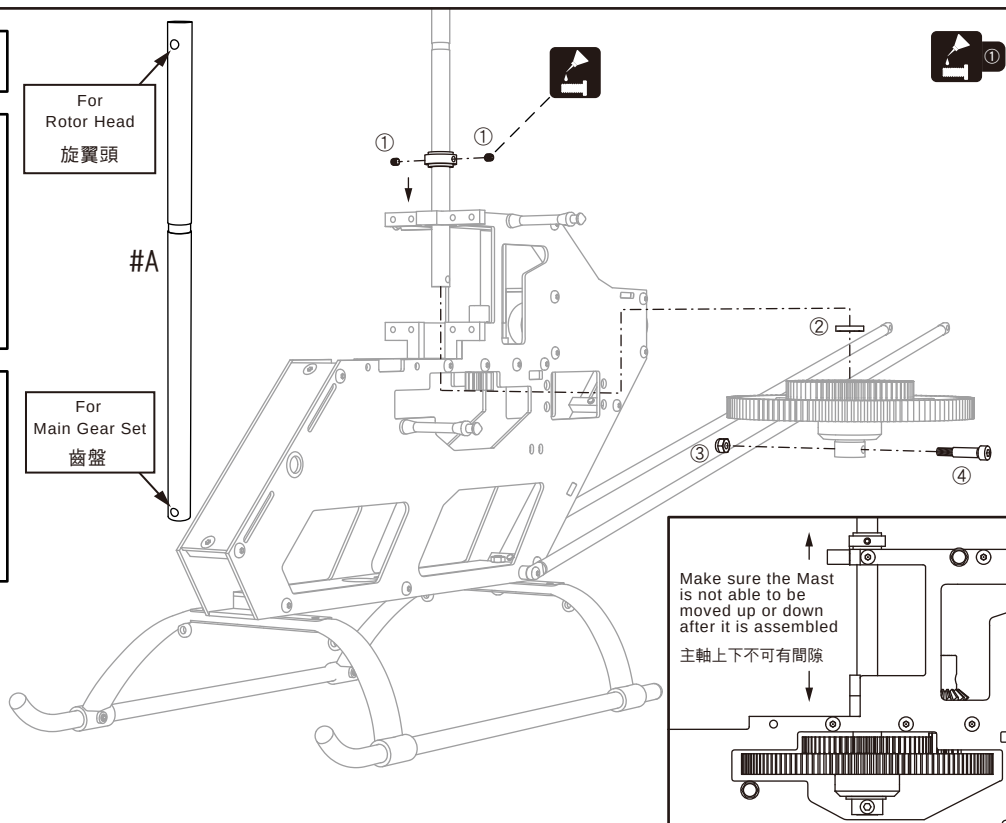
Socket head
machine screws
公制六角螺絲

Install the Mast and Main Gear Set, tighten the nut ③ and bolt ④, tighten the mast collar at proper position by set screws ① to make sure the Mast is not able to be moved up or down after it is assembled.

將主軸組至機身並置入齒盤內，鎖緊③④再將主齒盤上推並將主軸輪檔貼合上主軸板注意主軸上下不要有間隙再鎖入①螺絲。

For
Rotor Head
旋翼頭

#A

For
Main Gear Set
齒盤

Electronics installation

電裝配置

GAUI TAI SHIH HOBBY CORPORATION

① M2.6X10

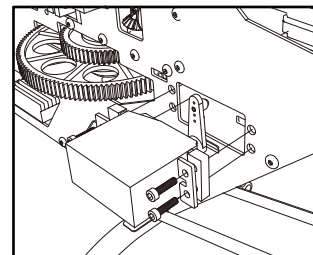
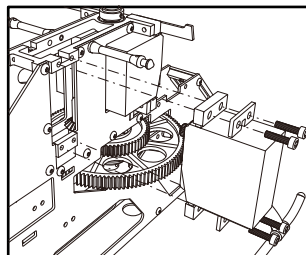
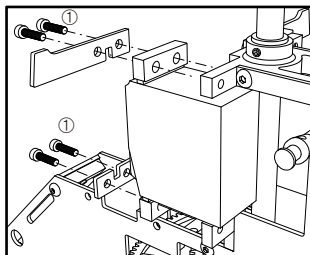
公制六角螺絲
Socket head
machine screws

Install the CCPM servos as in figure 1-1/1-2/1-3, insert the servo wires into Slot 1 and use the cable ties to attached them as shown in figure 1-4.

Install the electronics as shown in figure 1-4.

安裝CCPM伺服機(1-1、1-2、1-3)，伺服機配線可由外穿入孔1並用小束帶穿過束帶孔將伺服機訊號線固定(1-4)。

參考(1-4)將電子設備進行配置。



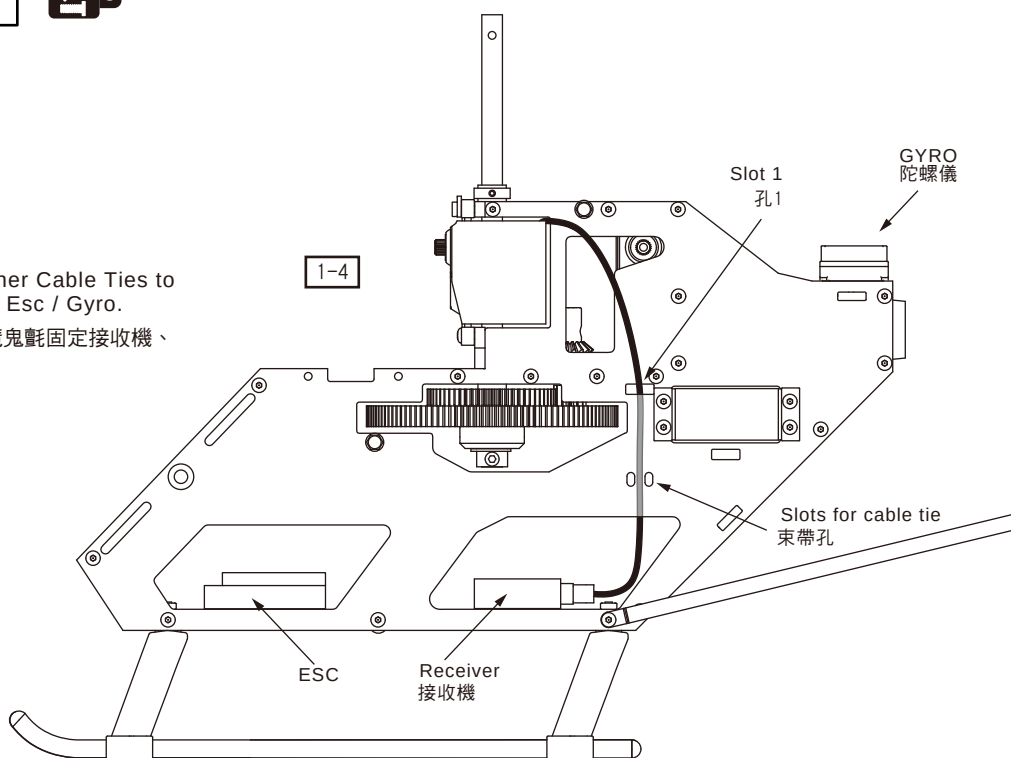
1-1

1-2

1-3

Use the Touch Fastner Cable Ties to attach the receiver / Esc / Gyro.

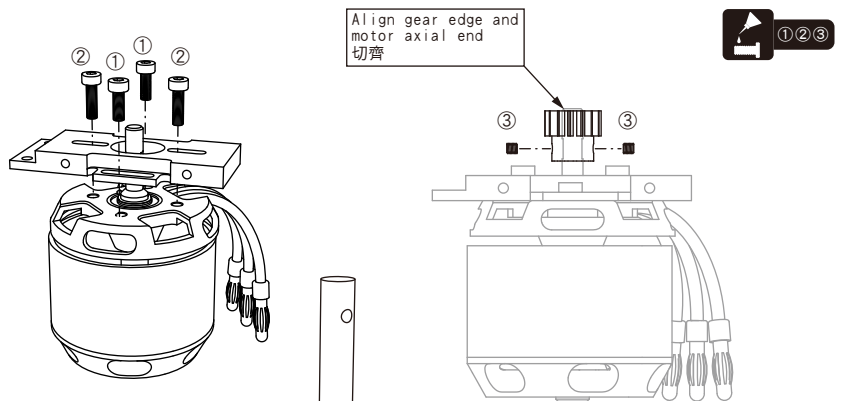
可使用配件包內附之魔鬼氈固定接收機、ESC、陀螺儀。



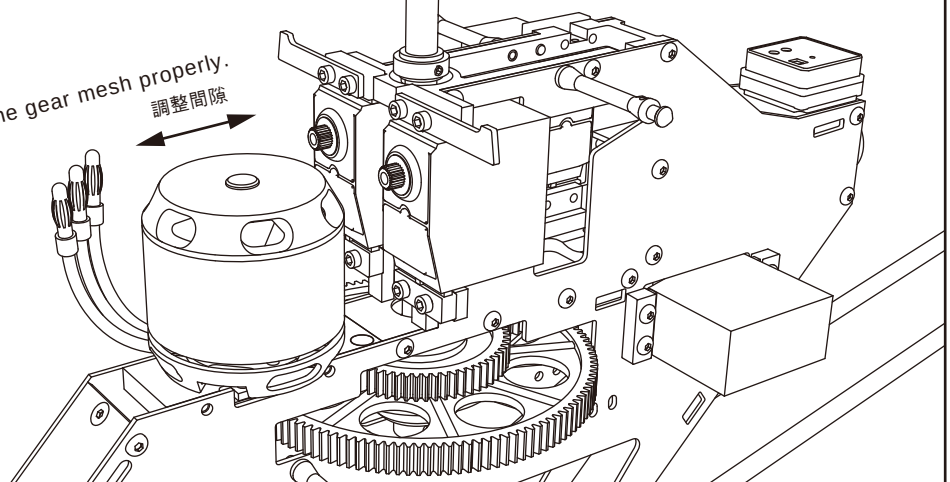
- | | | |
|---------|---|--------------------------------------|
| ① M3X6 |  | Socket head machine screws
公制六角螺絲 |
| ② M3X10 |  | Socket head machine screws
公制六角螺絲 |
| ③ M3X3 |  | Socket set screws
止付螺絲 |

Install the Motor / Motor Mount / 16T Pinion gear but do not tighten the screws ①②, tighten the set screws ③ and make sure to align the gear edge and motor axial end, then adjust the gear mesh properly(it is about 0.1mm) and tighten the screws ①②.

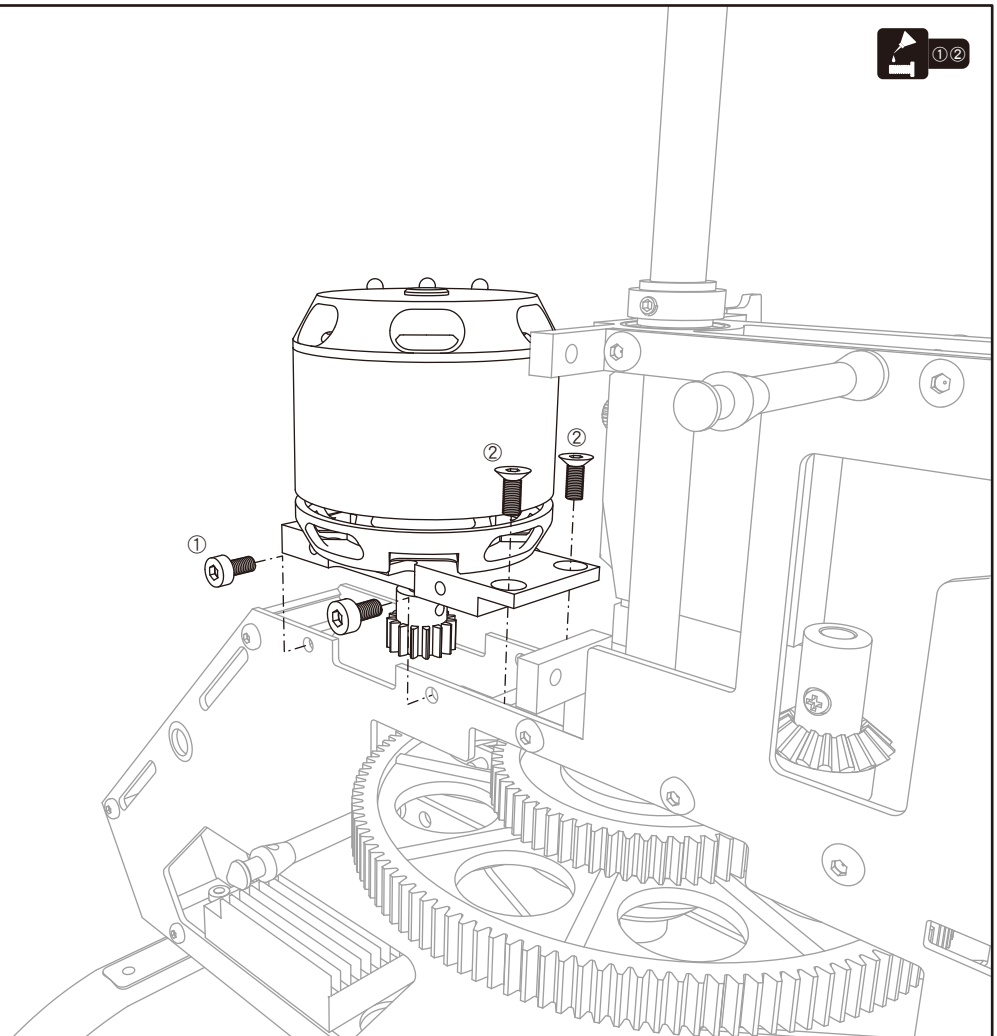
將馬達組裝至馬達板上並套上①②螺絲不鎖緊，套入16T馬達齒並注意馬達齒需與馬達軸心切齊後鎖緊③螺絲。
再將馬達總成置入機身調整適當間距(0.1mm)，確認間距無誤再將①②螺絲鎖緊。



Adjust the gear mesh properly.
調整間隙



- | | | |
|--------|---|--------------------------------------|
| ① M3X6 |  | Socket head machine screws
公制六角螺絲 |
| ② M3X6 |  | Socket head machine screws
公制六角螺絲 |

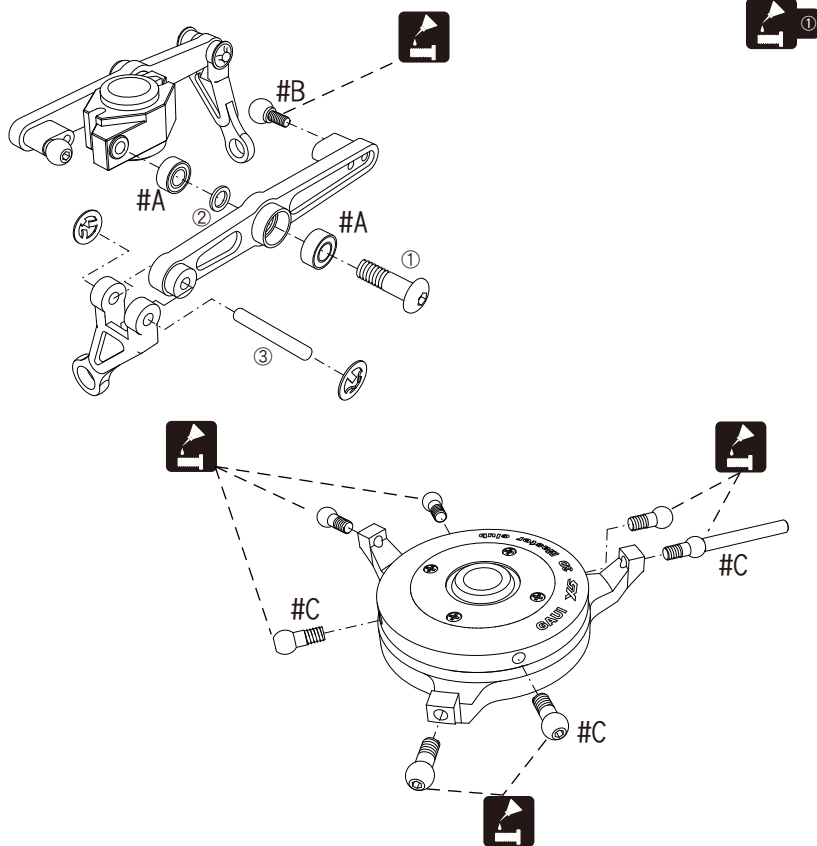


- #A #208759 Bearing (3x6x2.5) x4pcs
軸承包 (3x6x2.5) x4個
- #B #208782 Stainless (4.8mm) 球頭組
不銹鋼 (4.8mm) 球頭組
- #C #208806 Stainless (4.8mm) 球頭組
不銹鋼 (4.8mm) 球頭組

- ① M3X10 Socket head machine screws
公制六角螺絲
- ② W3.1X4.6X0.6 Washer
華司
- ③ P2X13 Pillar
柱狀體

Assemble the Swashplate and the Washout Arms and base Assembly.

組裝相位器總成，十字盤總成。

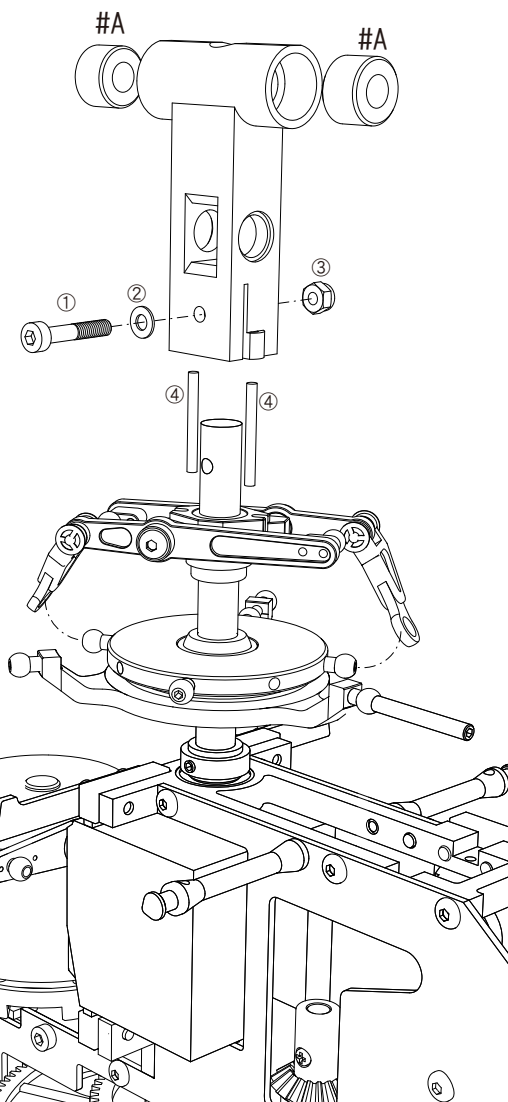


- #A #208912 Head Spacer & Damper Set (95)
橫軸橡皮墊 (硬度95)

- ① M3X16 Socket head machine screws
公制六角螺絲
- ② W3X6X0.5 Washer
華司
- ③ N3X5.5L Nut
螺母
- ④ P2X23 Pillar
柱狀體

1. Install the Swashplate / Washout Assembly / Rotor Head and tighten bolt ① as shown.
2. Attach the Radius arms onto swashplate.

1. 將十字盤總成、相位器總成、旋翼頭依序置入主軸內鎖緊①螺絲。
2. 將相位器推桿扣上十字盤。



- #A #208758 Flange Bearing (3X8X4)
法蘭軸承 (F3X8X4)
#B #208759 Bearing (B3x6x2.5) x4pcs
軸承包 (B3x6x2.5) x4個
#C #208782 Stainless (4.8mm) Balls
不銹鋼 (4.8mm) 球頭組

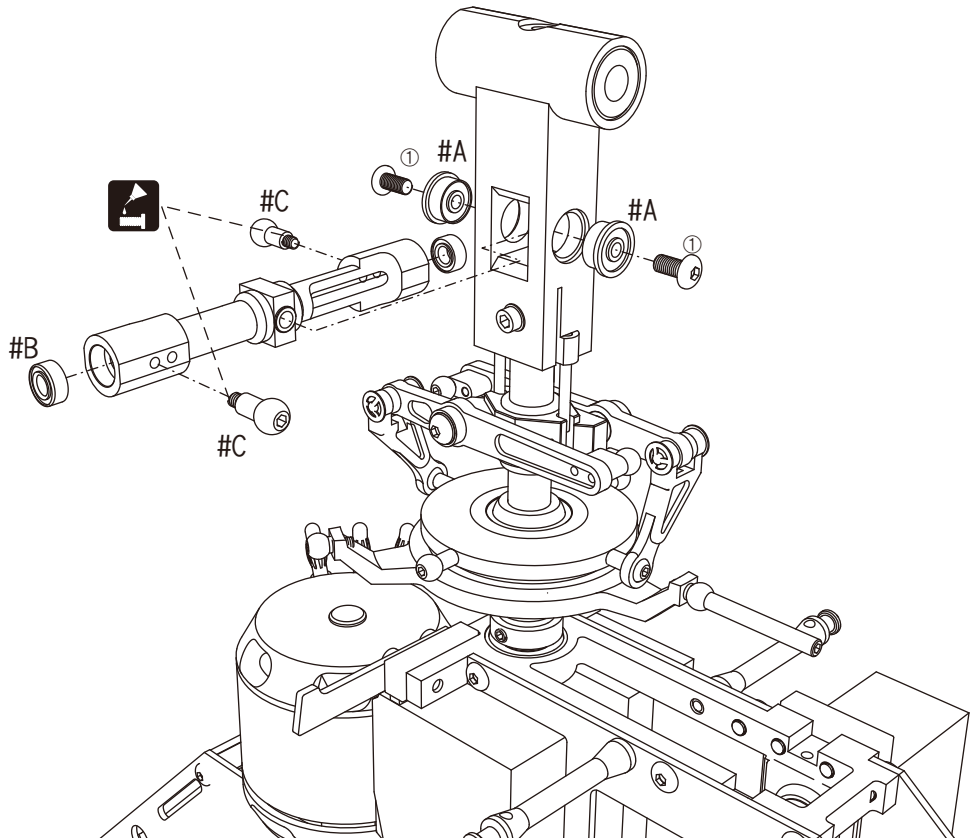


① M3X7

Socket head
machine screws
公制六角螺絲

Assemble the Crosstube and balls and tighten the screw ① as shown.

將平衡桿座組裝至旋翼頭再鎖上球頭與①螺絲。



- #A #208752 Ball Bearings Pack (6x13x3.5) x4
軸承 (6x13x3.5) x4
#B #208755 Thrust Bearings (T6x12x4.5) x4
止推軸承包 (T6x12x4.5) x4
#C #208345 X5 Spindle Shafts
X5 橫軸
#D #208343 X5 CNC Main Grip Set
X5 CNC 主旋翼夾頭
#E #208751 Ball Bearings Pack (6x13x5) x4
軸承 (6x13x5) x4
#F #208346 X5 CNC Main Grip Levers
X5 CNC 主旋翼夾頭舵柄



① M4X10

Socket head
machine screws
公制六角螺絲

② W4.1X10X1.4

Washer
華司

③ W6.2X7.6X0.5

Washer
華司

④ W6.1X10X1.5

Washer
華司



⑤ M3X7

Socket head
machine screws
公制六角螺絲

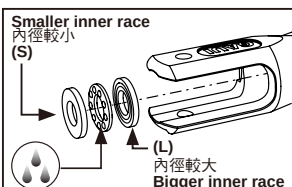
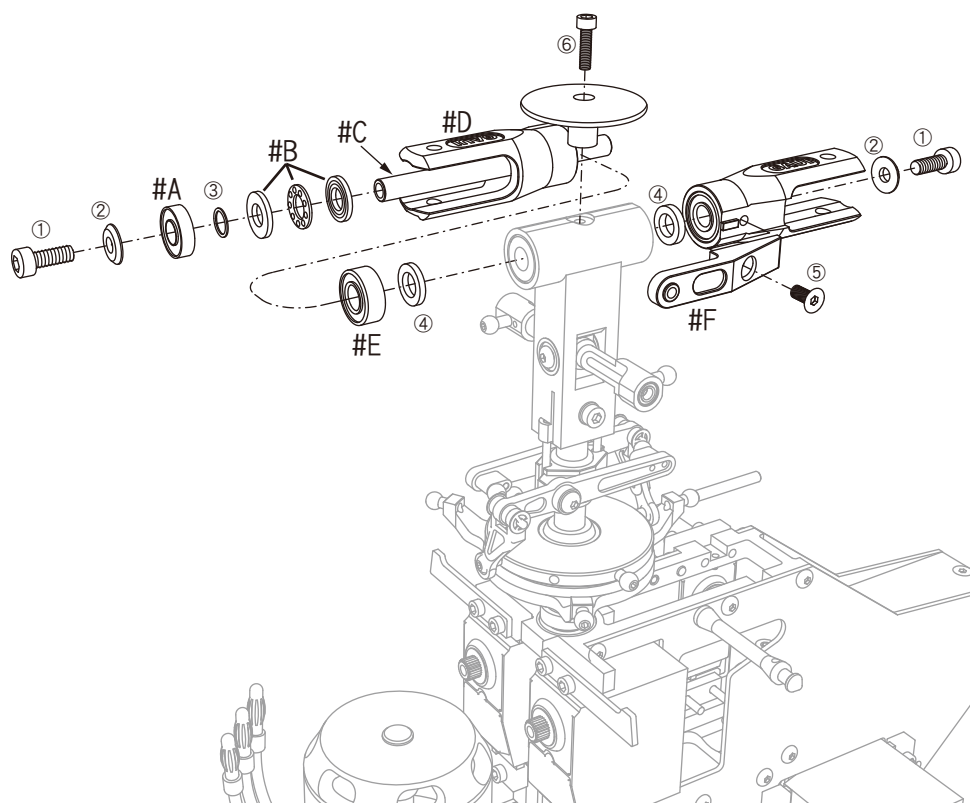


⑥ M3X10

Socket head
machine screws
公制六角螺絲

Assemble the Main Rotor Grips and The Stop Plate.
Make sure the Thrust Bearing should be installed correctly as shown in figure.

將主旋翼夾頭組裝至旋翼頭並注意軸承方向再將煞車盤組裝至旋翼頭。

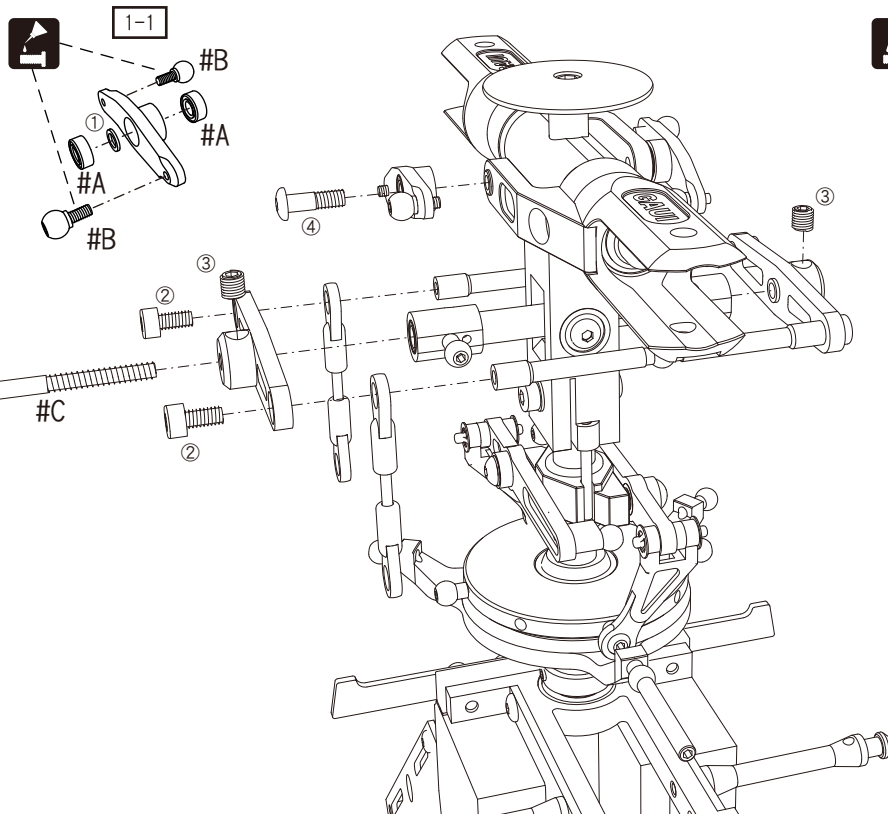


- #A #208759 Bearing (3x6x2.5) x4pcs
軸承包 (3x6x2.5) x4個
#B #208782 Stainless (4.8mm) Balls
不銹鋼 (4.8mm) 球頭組
#C #208349 X5 Flybars Pack (400mm)
X5 平衡桿包 (400mm)

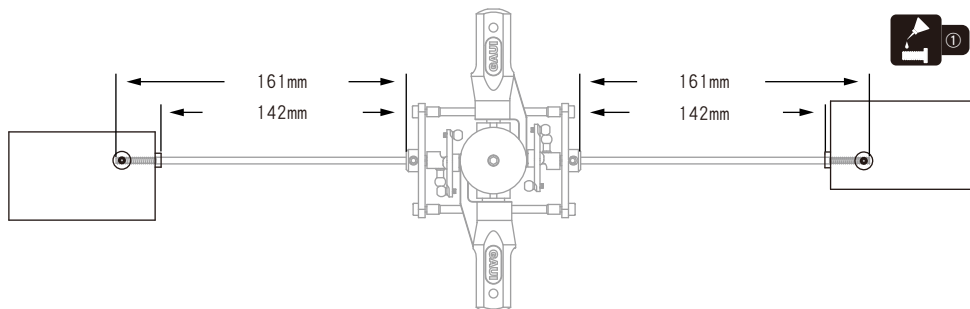
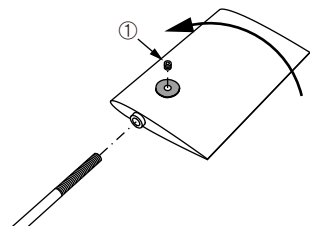
- ① W3.1X4.6X0.6 Washer
華司
② M3X6 Socket head machine screws
公制六角螺絲
③ M4X4 Socket set screws
止付螺絲
④ M3X10 Socket head machine screws
公制六角螺絲

Assemble the Mixing Arms as shown in 1-1,
Assemble the Flybar Cage and adjust the Flybar
properly to make it come with equal length in
both sides, tighten the set screws ③ as shown.

將旋翼搖臂組裝完成 (1-1) 並組裝至主旋翼夾頭舵柄。
安裝平衡系統夾片並對照下圖調整平衡桿間距在鎖緊
③螺絲。



- ① M3X3 Socket set screws
止付螺絲



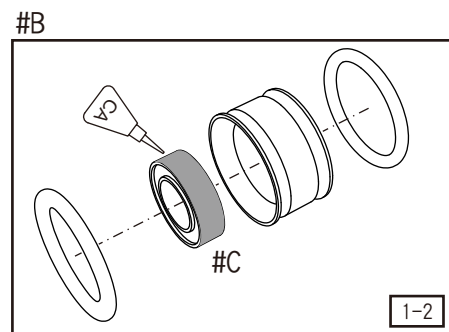
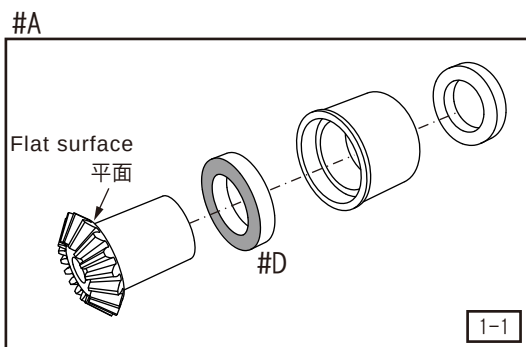
Shaft Driven Tail Assembly 1 尾傳動軸安裝-1

- #A #208920 Torque Tube Front Gear Set
尾軸傳動前齒輪組
#B #208909 X5 Torque Tube Drive Gear Set
X5 尾軸傳動齒輪包
#C #208762 Ball Bearings Pack (8x14x4) x3
軸承 (8x14x4) x3
#D #208763 Ball Bearings Pack (12x18x4) x3
軸承 (12x18x4) x3

1.The flat surface of the bevel gear should touch the
inner race of the bearing as shown in (1-1).
請注意傘齒輪平面需貼合軸承平面。(1-1)

2.When assemble the bearing into the bearing mount,
make sure not to glue the CA to the balls of bearing.
Install the O ring as shown in (1-2).

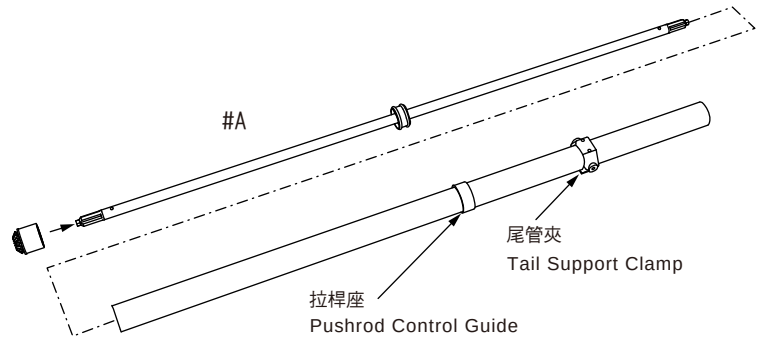
組裝時請將軸承嵌入尾傳動軸承墊圈組，再上膠
於軸承與墊圈接合處，上膠時請小心勿接觸到軸承
內緣，再套入橡皮墊圈。(1-2)



#A #208367 X5 Torque Tube Tail Boom Assembly
X5 CNC軸傳動尾管總成

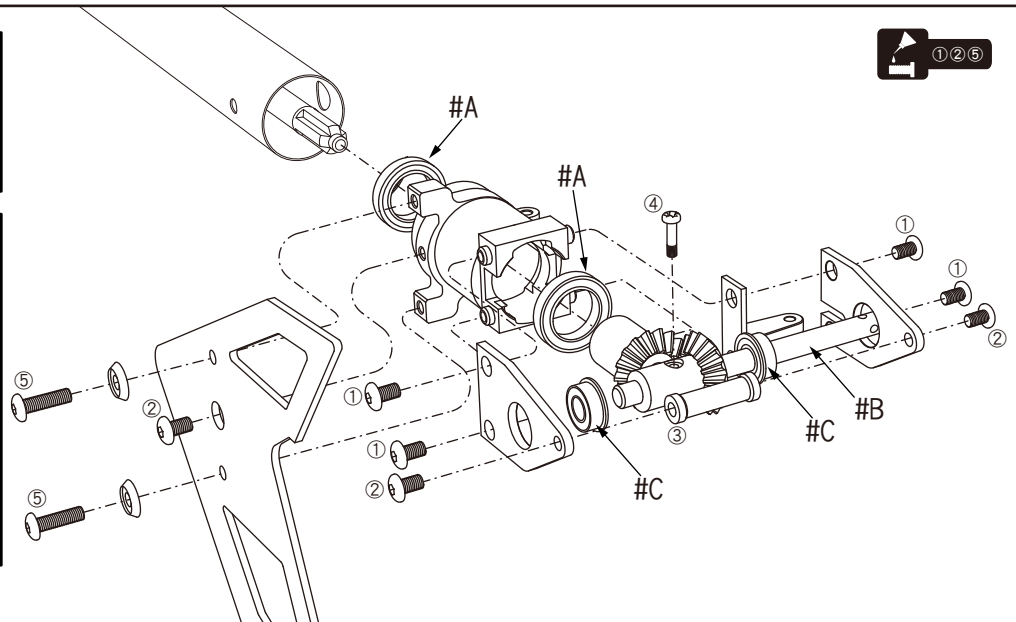
Insert the torque assembly into the tail boom, install the Pushrod Control Guide & Tail Support Clamp as shown in figure.

將傳動軸插入尾管總成內並套入尾管夾及拉桿座。



#A #208763 Ball Bearings Pack (12x18x4) x3
軸承 (12x18x4) x3
#B #208380 Tail Output Shaft and
bevel gear set
尾軸附傘齒組
#C #208754 Flange Bearing (5x10x4)
法蘭軸承 (5x10x4)

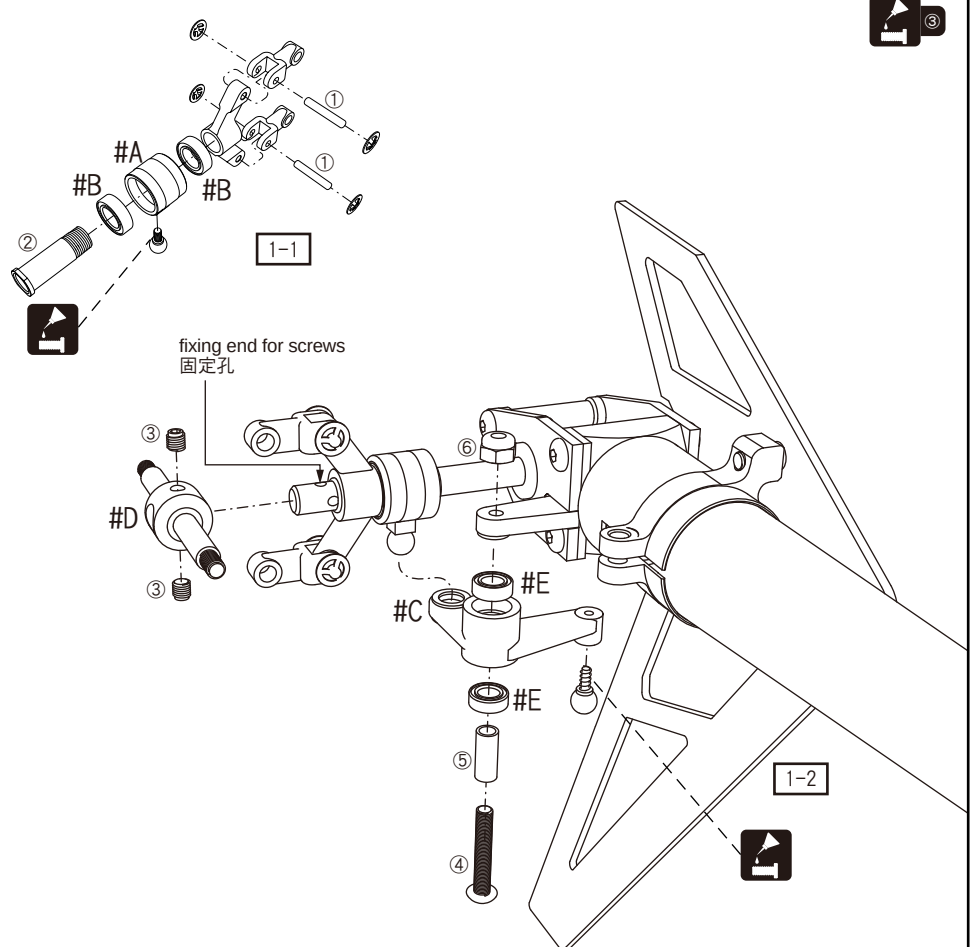
① M3X4 Socket head machine screws
公制六角螺絲
② M3X6 Socket head machine screws
公制六角螺絲
③ P3X4.8X20 Tube
柱狀體
④ M2X8 Machine screws
公制螺絲
⑤ M3X10 Socket head machine screws
公制六角螺絲



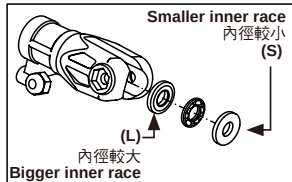
#A #208369 CNC Tail Pitch Slider Set
(for 5mm tail output shaft)
CNC 搖擺夾組 (5mm 尾軸用)
#B #208764 Ball Bearings Pack (6x10x3) x2
軸承 (6x10x3) x2
#C #208907 Tail Pitch Control Lever Set
尾舵角片
#D #208363 X5 Tail Hub
X5 CNC 尾旋翼頭
#E #208765 Ball Bearings Pack (4x7x2.5) x4
軸承 (4x7x2.5) x4

① P2X13 Pillar
柱狀體
② P5X6X18.5 Tube
柱狀體
③ M3X3 Socket set screws
止付螺絲
④ M3X18 Socket head machine screws
公制六角螺絲
⑤ P3X4X9.5 Tube
柱狀體
⑥ N3X5.5L Nut
螺母

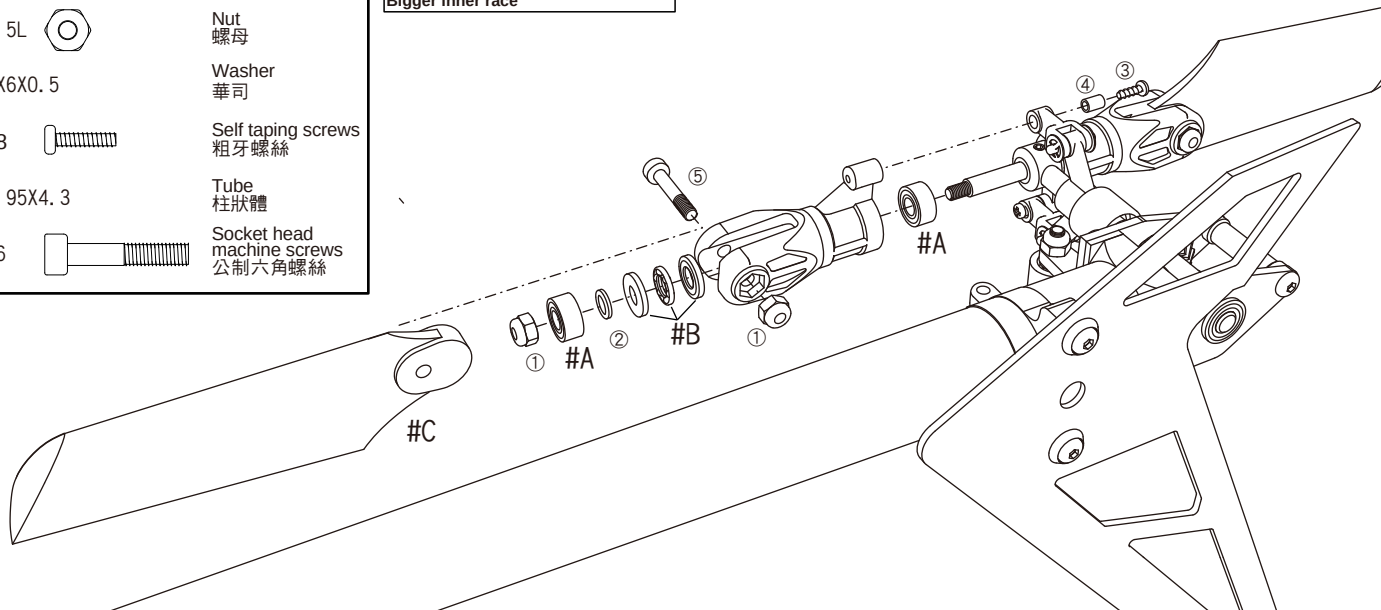
1. Assemble the Tail Slider Bush into pitch yoke as shown in (1-1).
利用滑套旋入組合尾螺距推桿座並組合推桿 (1-1)。
2. Assemble the tail pitch control lever and install it onto tail gear case (1-5).
將組合完成的尾螺距推桿座套入尾橫軸內並組合尾舵角片及尾旋翼頭 (1-2)。



- #A #208756 Ball Bearings (4x9x4) x2
軸承 (4x9x4) x2
- #B #208757 Thrust Bearings (T4x9x4) x2
止推軸承包 (T4x9x4) x2
- #C #208908 Tail Rotor Blade Set (82mm)
尾旋翼 (82mm)

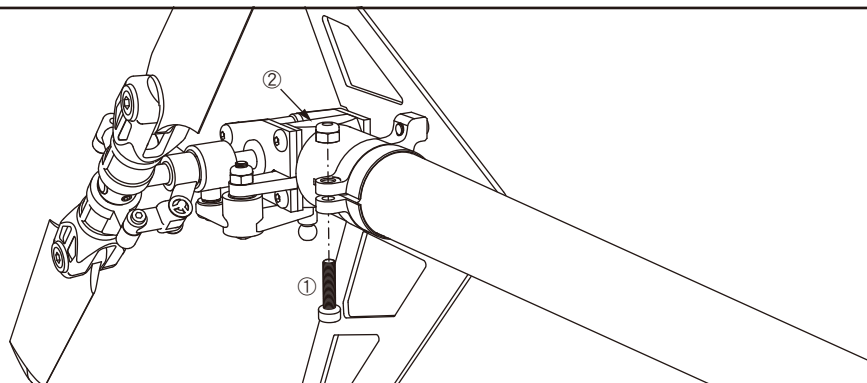


- ① N3X5. 5L Nut
螺母
- ② W4. 1X6X0. 5 Washer
華司
- ③ Ø2X8 Self tapping screws
粗牙螺絲
- ④ P2X2. 95X4. 3 Tube
柱狀體
- ⑤ M3X16 Socket head machine screws
公制六角螺絲



- ① M3X12 Socket head machine screws
公制六角螺絲
- ② N3X5. 5L Nut
螺母

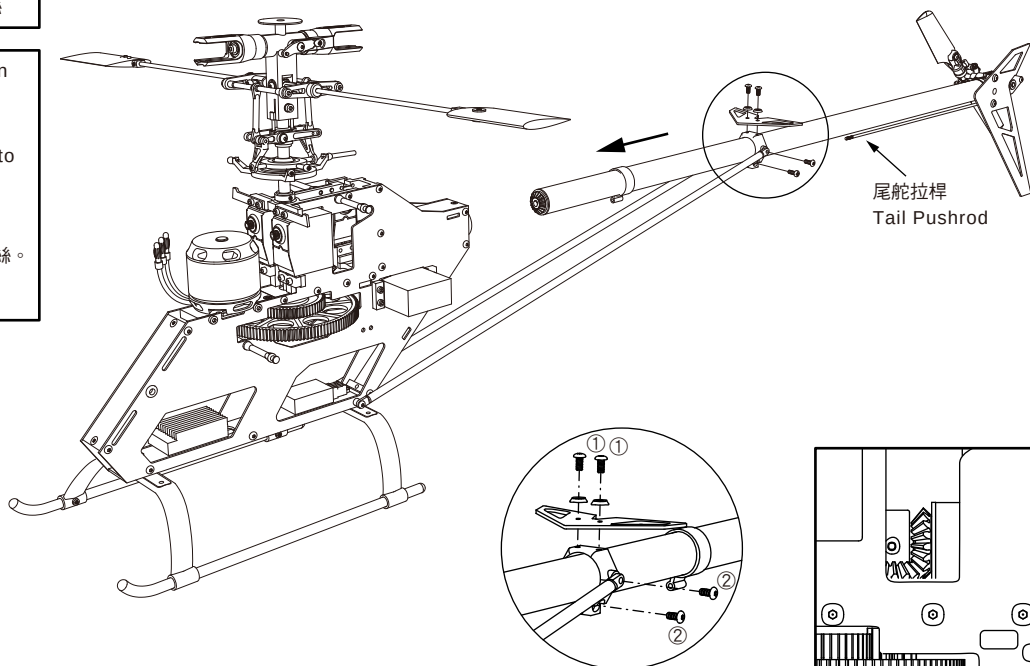
Assemble the Fin and Tail Gear Case Assembly onto Tail Boom and tighten the screws ① and ②.
組裝尾管總成並鎖緊①、②螺絲。



- ① M3X6 Socket head machine screws
公制六角螺絲
- ② Ø3X8 Self tapping machine screws
粗牙六角螺絲

1. Insert the the Tail Boom Assembly into Main Frame, adjust the gear mesh properly and tighten the screws ③ as shown in Page 2.
2. Make sure the tail pushrod was installed before inserting the Tail Boom Assembly into Main Frame, the Fin should be installed vertically.

1. 將尾管總成置入機身並仔細調整尾管總成與動牽齒輪的間隙 (不可過緊或過鬆)，再鎖緊P. 2 ③螺絲。
2. 鎖緊時請保持垂直尾翼與機身垂直。並將尾舵拉桿穿過尾管夾、拉桿座。

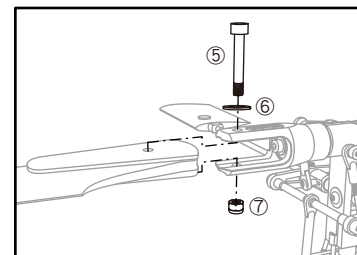
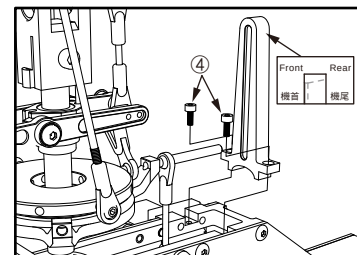
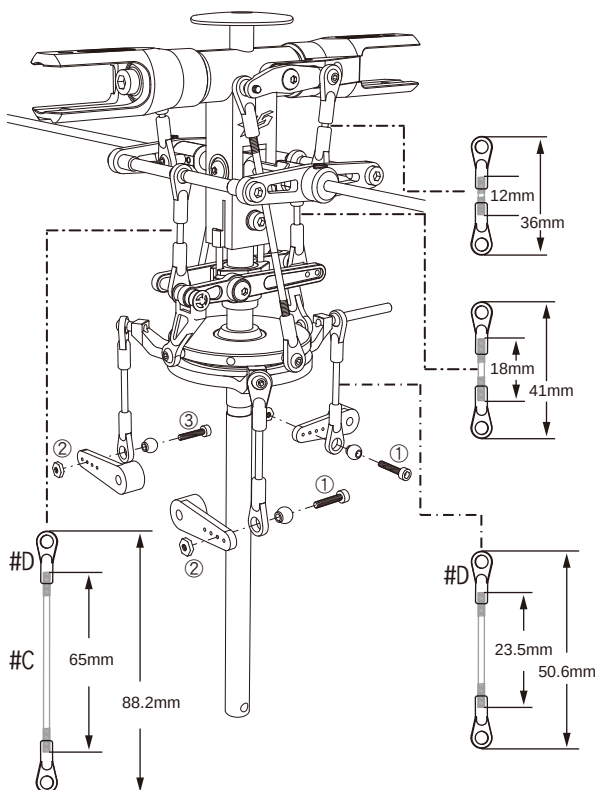


- #A #208904 Double Link (L-30)
L-30拉桿
#B #208905 Double Link (L-35)
L-35拉桿
#C #208401 Thread Rod for CCPM
CCPM螺桿組
#D #208906s Ball Links Pack
拉桿頭

- ① M2X12 Socket head machine screws
公制六角螺絲
② N2X4 Nut
螺母
③ M2X8 Socket head machine screws
公制六角螺絲
④ M2X5 Socket head machine screws
公制六角螺絲
⑤ M4X23 Socket head machine screws
公制六角螺絲
⑥ W4. 2X8x0.5 Washer
華司
⑦ N4X7L Nut
螺母

Install the Linkages / Servo Horns / Swashplate Guide / Main Blades as shown in figure.

組裝主旋翼拉桿及伺服機擺臂並將拉桿組裝至十字盤。
組裝滑軌及主旋翼。



Transmitter Setting

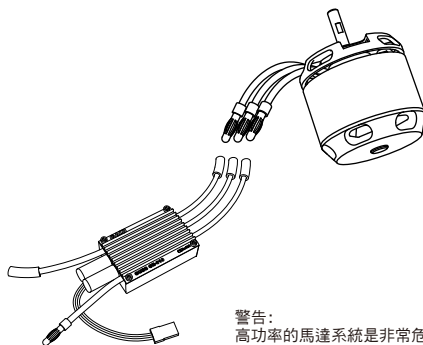
基本調機設定

1. Disconnect the motor wires before setting the transmitter function.
2. Set the transmitter function "Model Select" to "Heli Mode".
3. Set the transmitter function "Swash Plate Type" to "HR3" for Futaba transmitter. Set the transmitter function "Swash Plate Type" to "120°" for JR transmitter.

1. 請先拔掉電子變速器與馬達連接的三條線中的任兩條。(避免調機過程馬達啟動而造成危險)
2. 設定遙控器選單中，【模型類型】選項為直昇機模式 (HELI)。
3. 設定遙控器選單中【十字盤類型】選項
JR 請選擇 (120度)
FUTABA 請選擇 (HR3)。

Caution!!

High power motor systems could be very dangerous.
High current could generate heat on wires, batteries, and motors.
Always follow the instruction and use proper tools to set up the system within safe range.
Always fly at a designed field with caution even though this controller is equipped with safety arming program.

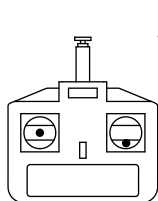


警告:

高功率的馬達系統是非常危險的，高電流能加熱電線和電池導致火災或燙傷皮膚，請跟著指示說明小心使用，配有高功率馬達的遙控模型會造成傷害，一定要在標準的飛行場，並且不能穿越或接近人群，即使你已經有了安全的配套措施，當你連接上電池你還是必須要小心操作。

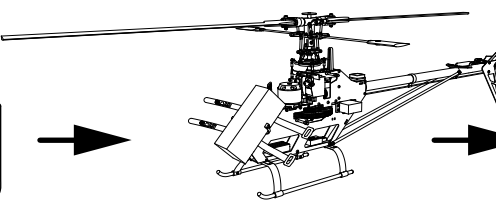
4. Switch on the power of transmitter first and then the receiver power.
5. Move the throttle stick to middle position. (Neutral position at value 50%)

4. 先開啟發射機電源再開啟機體電源。
5. 將油門搖桿撥動至中立50%的位置。



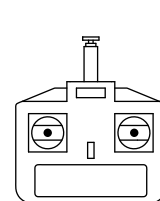
開啟發射機電源

Switch on the transmitter power



開啟機體電源

Switch on the receiver power

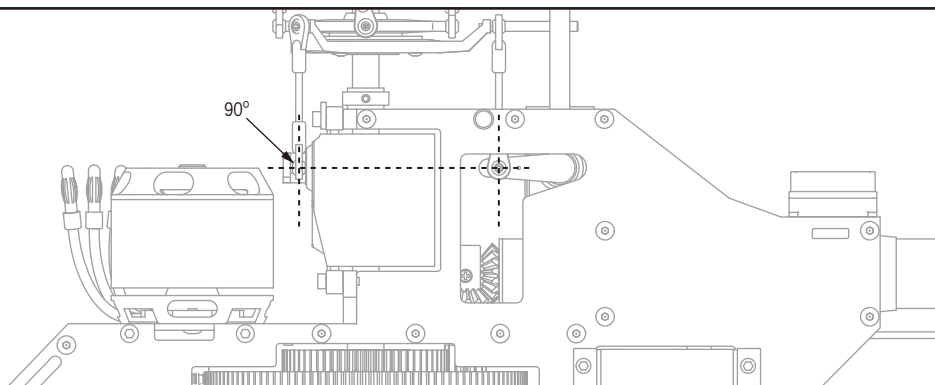


將油門搖桿撥動至中立的位置。

Move the throttle stick to middle position
(Neutral position at value 50%)

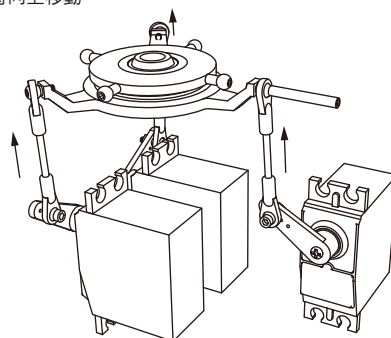
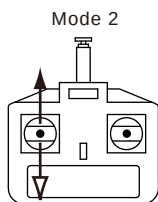
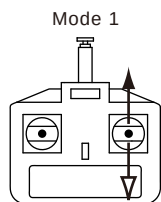
6. Set the transmitter function " Subtrim " to adjust the neutral position of CCPM servos, the servos at neutral should have the servo arms at level position, and each arm should be perpendicular to the control linkage. (Refer to the Step 11 in page 13)

6. 以90°扣上伺服機舵片扣上舵片時會因伺服機齒輪差異而無法垂直90度)請確認十字盤動作方向無誤後,再參照以P. 13, 第11項【伺服機微調選項的 " Subtrim " 功能】進行中立點微調。



7. Move the throttle stick upward, check and make sure 3 linkages of swashplate are all moved upward, set the transmitter function " Reverse " to reverse the operating direction if any one of the CCPM servos them is not moved correctly.

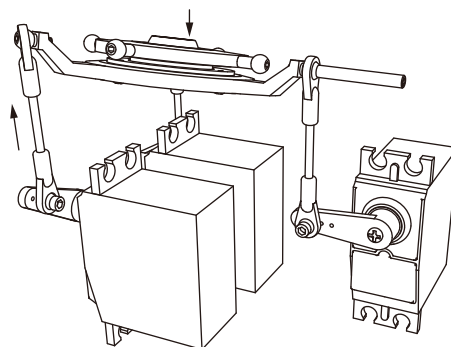
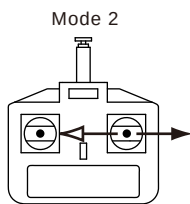
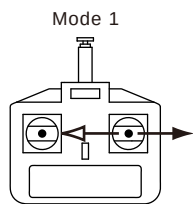
7. 油門搖桿上推, 確認連接3顆伺服機的十字盤是否同時向上移動, 若無同時向上移動, 請至遙控器選單設定【伺服機正反向設定】選項更改動作相反的伺服機使十字盤同時向上移動。



8. Move the AIL stick rightward, check and make sure the swashplate tilt to right side, if it tilt to the opposite side, set the "AIL %" in transmitter function " Swash Mix " to Negative value to make the swashplate move as your control. (Ex. Set the "AIL +50%" to "AIL -50%")

◎ Increase or decrease the "AIL %" to get the proper response of the AIL control.

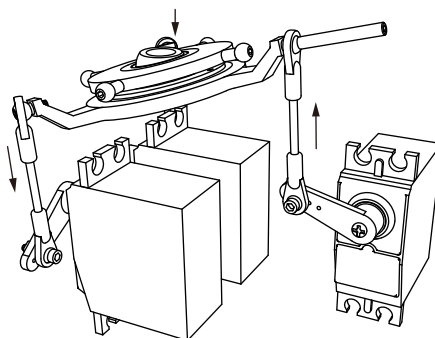
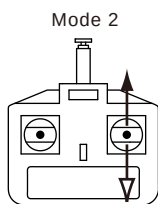
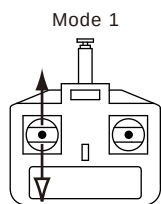
8. 向右撥動副翼搖桿, 確認十字盤是否向右傾斜, 若無向右傾斜, 請至遙控器選單中SWASHA選項內的AILE(副翼)的%數更改為負值。
◎適當的增減數值可調整AILE動作量大小。



9. Move the ELE stick forward, check and make sure the swashplate tilt forward, if it tilt to the opposite side, set the "ELE %" in transmitter function " Swash Mix " to Negative value to make the swashplate move as your control. (Ex. Set the "ELE +50%" to "ELE -50%")

◎ Increase or decrease the "ELE %" to get the proper response of the ELE control.

9. 向前撥動升降搖桿, 確認十字盤是否向前傾斜, 若無向前傾斜, 請至遙控器選單中SWASH選項內的【ELEV】升降的%數更改為負值。
◎適當的增減數值可調整ELEV動作量大小。

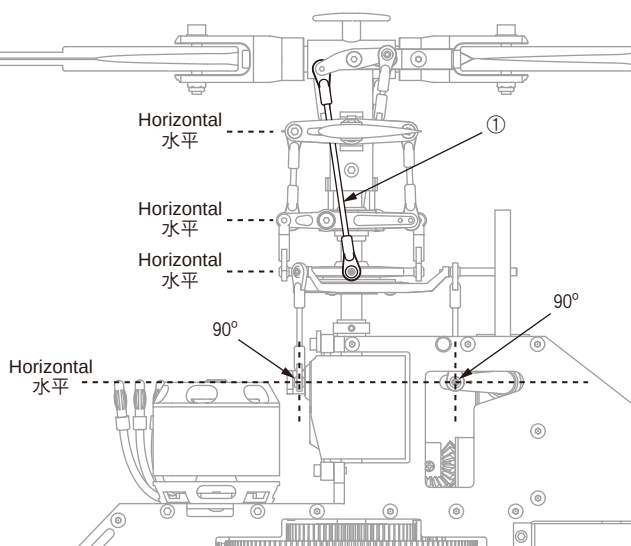


10. Move the throttle stick to middle position (Neutral position at value 50%)

10. 將油門搖桿撥動至中立50%的位置。

11. Set the transmitter function " Subtrim " to adjust the neutral position of CCPM servos, the servos at neutral should have the servo arms at level position, and each arm should be perpendicular to the control linkage.

11. 至遙控器選單中的【伺服機微調選項的 " Subtrim " 功能】將十字盤3顆伺服機擺臂微調至垂直90度。



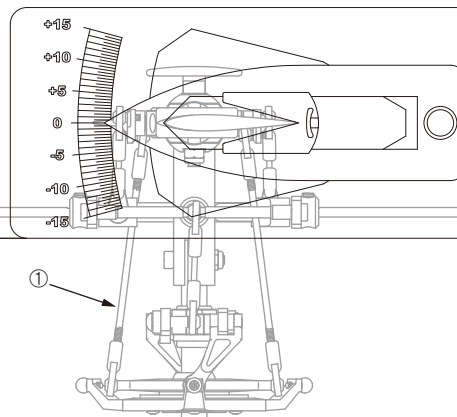
12. Move the throttle stick to the neutral (middle at 50% value), use a pitch gauge to check the pitch of both blades, adjust the linkages ① to make sure they are all in 0 degrees of both blades.

13. The Servo Horns / Swash Plate / Washout Arms / Flybar Paddles and Cage should be set to be horizontal as shown in figure.



The bottom edge of the Pitch Gauge should be parallel to the Flybar

螺距量角器與平衡桿需水平



12. 請將油門搖桿撥至中立，以螺距尺測量主旋翼的度數是否為0度。若不是0度，請調整①號連桿長度使2支主旋翼均為0度。

13. 調整3顆伺服機連桿長度至十字盤、相位器、日字框、平衡翼皆水平。

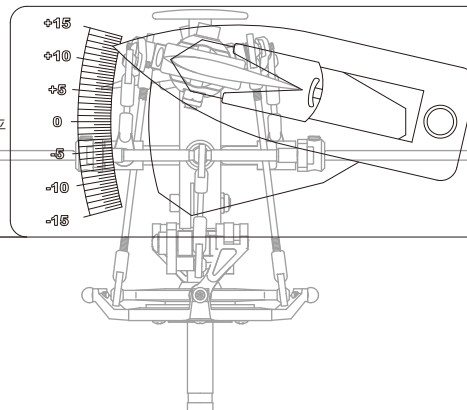
14. Move the throttle stick to the top position, the maximum positive pitch should be around +11 to +13 degrees, set the proper "Pitch %" in transmitter function " Swash Mix ". Move the throttle stick down to the bottom position, the maximum negative pitch should be around -11 to -13 degrees, set the transmitter function " Travel Volum / End Point " properly to make it come with recommended negative pitch.

IMPORTANT : The increase/decrease value of the transmitter function " Travel Volum / End Point " of each CCPM servo should be the same in this step.

14. 請將油門搖桿向上撥至最高，測量主旋翼最大【正】螺距度數，應為+11至+13度。若不是，請調整遙控器選單中【SWASH】內的【PIT】數值。請將油門搖桿向下撥至最低，測量主旋翼最大【負】螺距度數，應為-11至-13度。【正】【負】螺距度數需一樣若不是，請調整遙控器選單中的【伺服機大小行程量】數值，三顆伺服機需同時增加或減少至測量結果與正螺距度數相同。

The bottom edge of the Pitch Gauge should be parallel to the Flybar

螺距量角器與平衡桿需水平



- ◎ Before starting the step 15, make sure to move the control sticks to check the movement of the swashplate and set the proper "AIL % and ELE %" in transmitter function " Swash Mix " to make sure each mechanism is not interfered with each other.

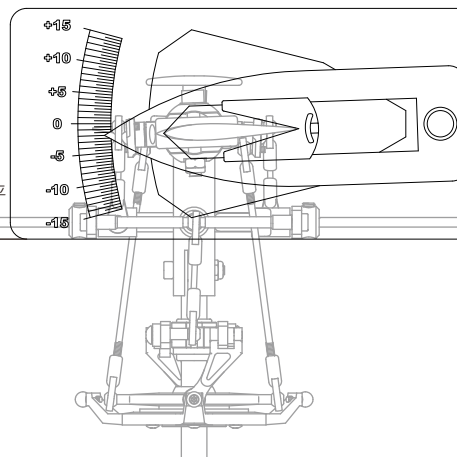
- ◎ 進行第15項時請、上、下、左、右、前、後撥動搖桿，查看十字盤行程動作是否有干涉。若有干涉請至SWASH減少AILE、ELEV數值。

The bottom edge of the Pitch Gauge should be parallel to the Flybar

螺距量角器與平衡桿需水平

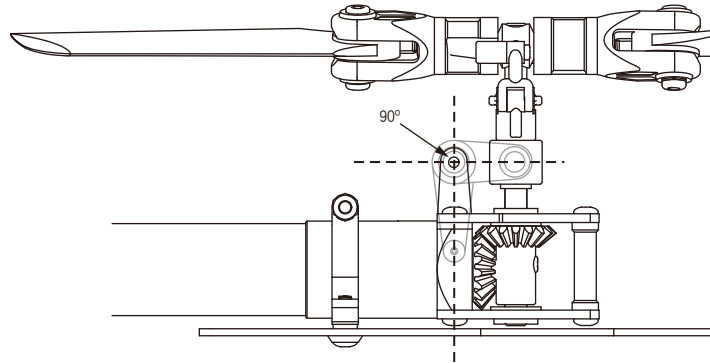
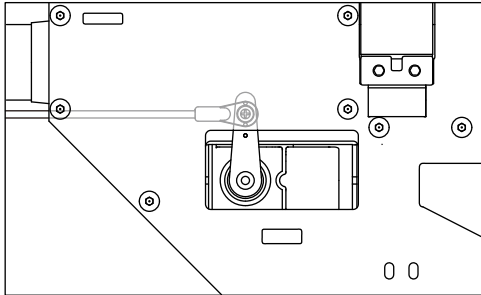
15. Move the throttle stick to the lowest position, set the proper " Pitch Curve % " in transmitter function " Normal Mode " to make the negative collective pitch to be -2 or -3 degrees at the lowest throttle stick position(it is about 40% to 45% at the 1st pitch curve point at normal mode). The value of the middle point of pitch curve in normal mode is about 55% to 60%.

15. 請將油門搖桿撥至最低點，測量主旋翼【負】螺距度數約在-2至-3度，並請進入遙控器選單中【PITCH曲線設定】選項，至【NORM模式】中增加數值最低的數值，使主旋翼【負】螺距度數約在-2至-3度。【設定完的數值大約在40%至45%之間】至曲線設定中間的數值，增加數值至55至60%



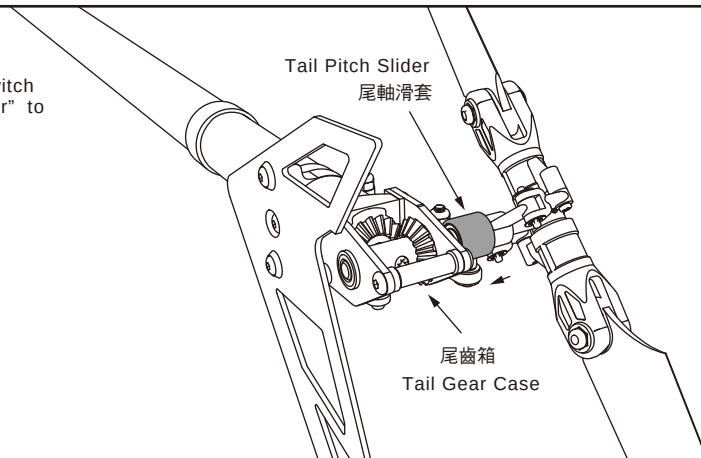
16. Set the gyro to non-heading-hold mode, attach the tail servo horn and set it perpendicular to the tail pushrod.

16. 調整陀螺儀至非鎖定狀態下，將尾舵角片垂直於尾管，在將伺服器擺臂扣上伺服器並保持擺臂垂直90度。



17. Set the gyro to heading-hold mode, move the rudder stick rightward and make sure the tail pitch slider move towardward to the tail gear case, if it is not, switch the transmitter function " Servo Reverse " of " Rudder " to the opposite position.

17. 請至遙控器設定選單中【陀螺儀感度GYRO】至鎖定狀態，向右撥動尾舵搖桿，尾軸滑套須向尾齒箱移動，若不是請調整遙控器選單中【伺服器正反向設定】選單中【RUDD】的正反向。

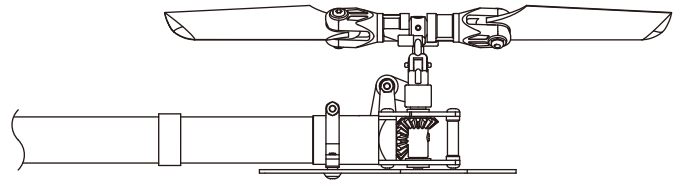
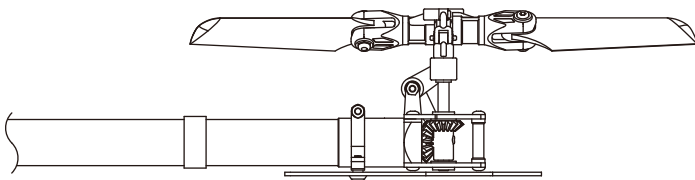


18. Put the heli tail toward to yourself (Heli nose forward), move the tail to right side (Heli nose moves leftward), the gyro should control the tail servo to move the tail pitch slider toward to the tail gear case, if it is not, switch the " gyro direction switch " to the opposite position. The way of setting may vary due to the different gyro brands.

18. 將機尾朝向自己，以機體為軸心慢慢以畫圓的方式移動機尾向右，此時尾軸滑套需向尾齒箱移動並修正，若不是，請更改陀螺儀正反向設定。【各廠牌陀螺儀設定方法不同，請參照陀螺儀使用說明作設定】。

19. Set the " Limit " on your gyro properly to have the maximum travel of tail pitch control, make sure the tail pitch slider at its maximum travel to left and right should not touch the Tail Gear Case and Tail Hub, there should be a distance for 0.5mm(or less) at each side. The way of setting may vary due to the different gyro brands.

19. 設定尾舵左右最大行程量，左右最大行程量保持與尾齒箱及尾旋翼頭0~0.5mm距離不干涉為主。（各廠牌陀螺儀行程量設定方法不同請參照陀螺儀說明書作設定）。



20. Set the " EXP Value " in transmitter function as follow recommendations :

" AIL 30% to 50% " / " ELE 30% to 50% " / " RUD 50% to 70% " , or set them properly by yourself after few flights.

Set the " EXP " values in Positive for JR transmitter, and set them Negative for Futaba transmitter.

20. 請設定遙控器選單中EXP的感度指數，各數值設定如下： AILE 30~50% ELEV 30~50% RUDD 50~70%。
JR請以【正】數值設定、Futaba請以【負】數值設定

21. Switch off the power of receiver and transmitter, tighten the screws of each servo horn after power off.

21. 關閉機體電源與發射機電源，將四顆伺服器擺臂螺絲鎖上

The X-5 heli product is not a toy, for the consideration of safety and performance, it is necessary to check and maintain after each flight.

請維持良好習慣：X-5 電動遙控直升機為高科技精密零組件構成之休閒用品，玩家請時常注意確保機體的保養及維持機構組件之性能，於飛行時展現其優異的性能，不當的保養維護，會導致飛行時的安全度降低。

For the first flight, it must be under supervision by an experienced pilot to check the mechanism and transmitter setting before flying.

初次起飛前請再次確認各部位動作是否正確，並向有經驗之飛友確認設定是否正確。

【Caution 注意事項】

When spinning, if the blades are unbalanced or the tracking of both blades is not even with each other, Check or replace the Blades / Mast / spindle shaft to fix the problem.

主旋翼運轉發生異常時，請檢查主旋翼、橫軸；主軸是否有變形或平衡不良，必要時請更新異常機構零件。

Check the mechanism and bearings after 100 normal flights for safety.

主軸軸承：主軸軸承長期負載運作，正常飛行約 100 趟後必須檢查各部機構、軸承性能狀況，如有異常請更換新品以保持運作順暢。

Check and replace the damaged parts after crash of hard 3D flight.

如經常進行 3D 飛行或嚴重撞擊，建議你必須時常檢查機構、零件、軸承等，如發現異常狀態或間隙、異音或是轉動有明顯干涉等都必须更換新品。

When hovering, decrease the collective pitch or adjust the hovering throttle curve higher if the head speed is too slow, increase the collective pitch or adjust the hovering throttle curve lower if the head speed is too high.

停旋：主旋翼轉速偏低，請注意主旋翼的 PITCH 是否偏高或停旋點油門曲線過低。

停旋：主旋翼轉速偏高，請注意主旋翼的 PITCH 是否偏低或停旋點油門曲線過高。

Check the Rotor head assembly / main grip screws / mixing arms / flybar after crash (even in slightly compact), replace the damaged parts before next flight.

飛行時不慎觸地，請優先檢查旋翼頭零件及橫軸螺絲、混控臂、平衡桿等。

Remove the one way bearing after 50 flights, clean it and grease it with oil.

單向軸承飛行 50 趟後請卸下來清潔與重新上油。

Replace the belt if there is any fissure on it.

皮帶：長期運轉會使皮帶造成老化、斷齒等狀況為了維護飛行安全請更換新品。

【Troubleshooting 狀況排除】

1. The tail wags in hovering or flying :

(1) Decrease the gyro gain value in transmitter.

1. 起飛時尾部左右快速擺動，或起飛後尾部不定時快速擺動：排除<1>陀螺儀感度過高，減少陀螺儀感度數值。

2. The tail drifts to one side in hovering or flying :

(1) Switch off the receiver power and switch on again but do not move the heli after 1 to 3 seconds or wait until the gyro LED indicates it is Heading hold mode.

(2) Check the neutral of tail servo or reset it as shown in step 19 on page 14.

(3) Increase the gyro gain value in transmitter.

2. 起飛後尾部向某一方向偏移：排除<1> 請關機後重新開機。

在開啟後直升機電源時勿移動或晃動到直升機，須待陀螺儀鎖定後才可移動，過程約1~3秒。

若開機後在陀螺儀尚未鎖定前不小心移動或晃動到機身而使陀螺儀中立點搜尋不正確，

可能會造成尾部向某一方向偏移的狀況。

排除<2> 檢查尾陀中立點是否正確。 ※參照P. 14，第19項重新設定。

排除<3> 陀螺儀感度設定過低：需調高陀螺儀感度。

3. The improper main blade tracking :

(1) Reset the pitch of each blade as shown in step 12 on page 13.

(2) Adjust the grip linkages properly to make both blades in the same tracking.

3. 雙旋：排除<1> 在調整主旋翼0度時不夠準確，需重新調整。 ※參照P. 13，第12項重新設定。

排除<2> 將其中一支主旋翼的尾端做上明顯記號，在停懸時查看有做記號的是在上或下。

在上，請減短連桿長度。

在下，請增加連桿長度。

4. The heli shakes in hovering :

(1) Increase the head speed by setting the transmitter function " Throttle Curve " to higher values in middle section of the curve.

(2) Decrease the hovering pitch by by setting the transmitter function " Pitch Curve " to lower values in middle section of the curve.

4. 停懸時機身後晃動：排除<1> 油門停懸點曲線設定過低，增加設定值進入THRO CURV。

在NORM的設定畫面中，增加中間的數值，慢慢增加至狀況排除。

排除<2> PITCH停懸點曲線設定過高，減少設定值。

進入PITCH CURV。

在NORM的設定畫面中，減少中間的數值，慢慢減少至狀況排除。

5. The heli spins before take off :

(1) Reverse the gyro direction as shown in step 18 on page 14.

5. 直升機在起飛過程中尚未離地時快速自旋：排除<1> 陀螺儀修正正反向錯誤。

請參照P. 14，第18項重新設定。

6. Enquire for an experienced pilots to check it in person in case you are not able to fix the problem which you occurred.

6. 若以上都未能排除之狀況，請聯絡專業人員為您排除與解說。

Simulator 請事先熟練模擬飛行

For beginners, it is highly recommended to use the simulator at beginning.

初學者請事先熟悉遙控器操作並能熟練的反應各動作，再實機飛行。

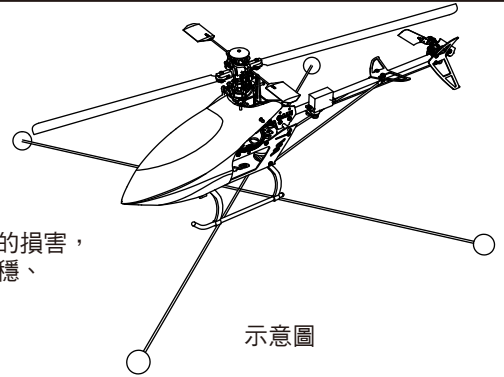
建議透過市售販賣模擬軟體進行模擬器練習如此提高飛行安全、降低損耗，以增加實機飛行的樂趣。

Training gear 初學者建議加裝練習腳架

For beginners, it is highly recommended to use the training gear.

初學者實機飛行前建議加裝練習腳架，可避免初次上機因緊張、壓力等因素造成不等的損害，初次飛行時請勿離地過高，一驚覺有危險請將油門推至低點，練習腳架可預防重心不穩、輕降落等問題降低對機身的損害。

並持續練習油門手感到操縱自如後再練習副翼跟方向舵。



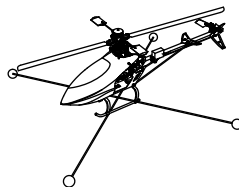
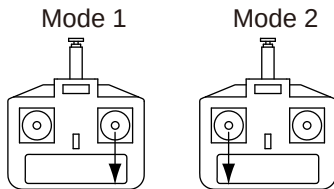
Real flight 實機飛行

Make sure to check that your frequency is not interfere with others in the same field.

請先確認該飛行場地是否有其他遙控型飛機的飛友，如有請向對方確認彼此之間的頻率，並向對方告知自己所用之頻率，以避免相同頻率互相干擾造成損害。

Make sure the throttle stick is at the lowest position and turn on the power of transmitter.
將發射機電源開啟，油門搖桿推至低點。

Turn on the power of receiver.
接上直昇機電源



Landing immediately when the power is not enough when hovering, replace a battery before next flight.

當飛行感覺出力不穩時請更換電池，關上電源時請依上述操作反執行

Blade Tracking 主旋翼雙槳平衡調整

Make sure to keep away from the spinning blades when tracking them.

1. Mark on the tip of one blade.
2. Increase the throttle little by little to check the tracking.
3. Adjust the linkage of one Main Grip if both blades is not even with each other when spinning.

4. Adjust Pitch linkages properly for a good tracking.

The heli will be unstable if the tracking is not set properly, especially for the heli with FES rotor head.

The collective pitch for hovering is 5 or 6 degrees approximately in normal mode.

調整主旋翼雙槳時請保持安全距離。

1. 調整前請在其中一支主旋翼的翼端，畫上明顯記號或貼有色貼紙，方便調整時辨識。
2. 慢慢推起油門桿，直升機離地前從側邊視觀察直升機主旋翼雙槳。
3. 注意雙槳轉動時產生的軌跡，雙槳軌跡相同則不需調整，如遇不同軌跡請立即調整。
4. 調整螺距連桿使雙槳軌跡相同。

主旋翼轉動時高軌跡代表主旋翼PITCH過大請調短1號連桿使PITCH一致。

主旋翼轉動時低軌跡代表主旋翼PITCH過小請調長1號連桿使PITCH一致。

過高的軌跡容易使電池與馬達產生過熱現象。

過低的軌跡容易造成浮力不足耗電量增大。

飛行時軌跡不一致會產生振動造成飛行上的不安定，

如為FES機時請仔細調整。

調整完成後請確認 Normal 狀態之停旋Pitch角度約+5 ~ +6。

Throttle Control 油門控制練習

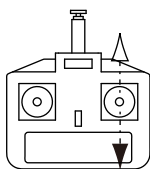
Keep 5 meters away behind the heli when hovering, keep the head toward to the front outside.

熟悉停旋練習，是提高安全的基本功，練習時請先保持直升機尾部朝向自己及確認距離於直升機後方約5公尺並保持之。

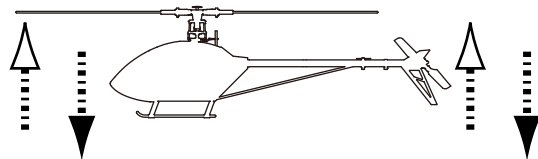
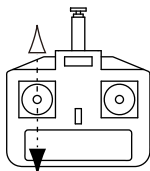
Increase the throttle little by little until the heli lifts slowly and decrease the throttle slowly to land it smoothly, practice it in both steps for a better control skill.

當直升機開始離地時，慢慢降低油門使直升機降落持續並反覆練習之以提高熟練、熟悉度。

Mode 1



Mode 2



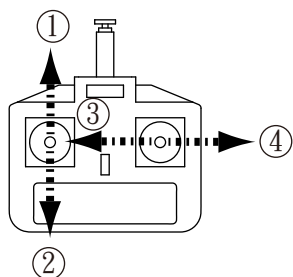
Aileron and Elevator Control 副翼及升降練習

Increase the throttle little by little until the heli lifts slowly and practice to move it to 4 directions(Forward / Backward / Left / Right), practice it in each step for a better control skill.

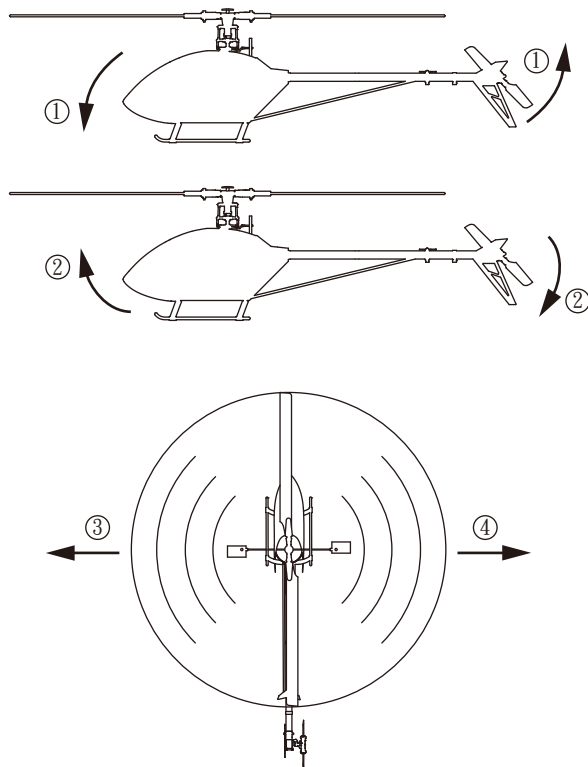
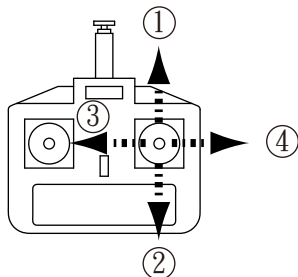
慢慢推起油門桿

使直升機依指示移動：向後 向前 向右 向左，並反覆練習之以提高熟練、熟悉度。

Mode 1



Mode 2

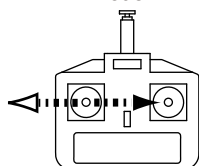


Rudder Control 方向舵練習

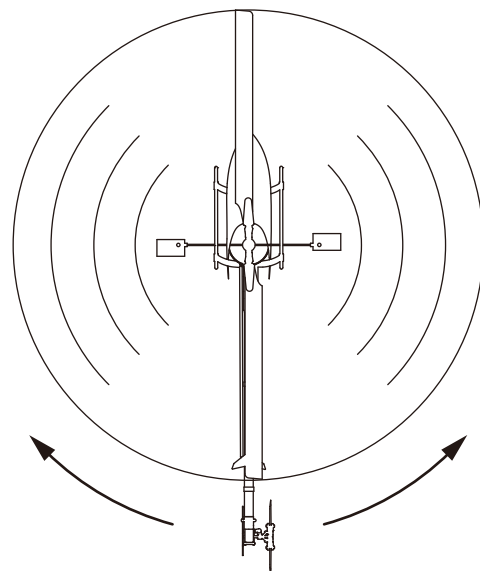
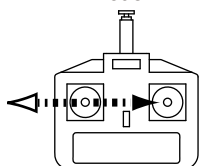
Increase the throttle little by little until the heli lifts slowly and practice to move the head to Left or Right side, practice it in each step for a better control skill.

慢慢推起油門桿將直升機機頭移動左、右，並慢慢朝反方向移動方向舵桿直到直升機回正於原位，並反覆練習之以提高熟練、熟悉度。

Mode 1



Mode 2



Practice to Control the heli in a specific area to get the quick response about it.

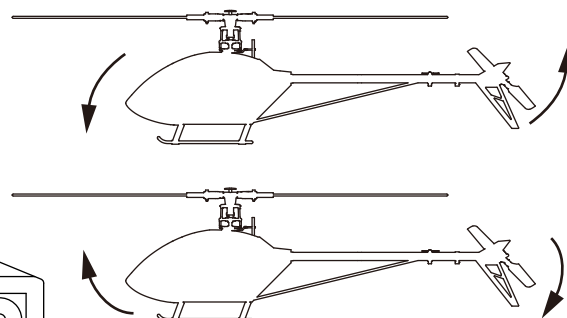
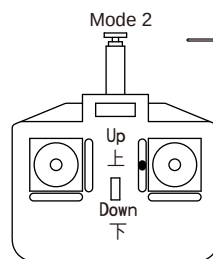
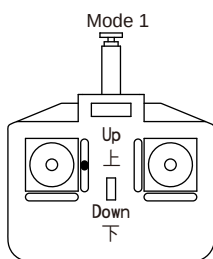
確認操控無誤並熟練後可在地上畫單一範圍限制飛行空間，提高練習反應。

Trim - Elevator 飛行動作微調-升降舵

Use the trim function on transmitter to adjust the drift when hovering.
各操控桿皆有微調撥鈕，如遇直昇機剛離地便開始偏移時請微調以修正直升機動作

Use the Elevator trim to adjust the pitching if the nose moves up or down when hovering.

直昇機正起飛離地時，機頭朝前或後傾時，前傾時請將微調撥鈕往下撥，並重複微調之後傾時請將微調撥鈕往上撥，並重複微調之直到離地起飛時無傾現象即微調完成。

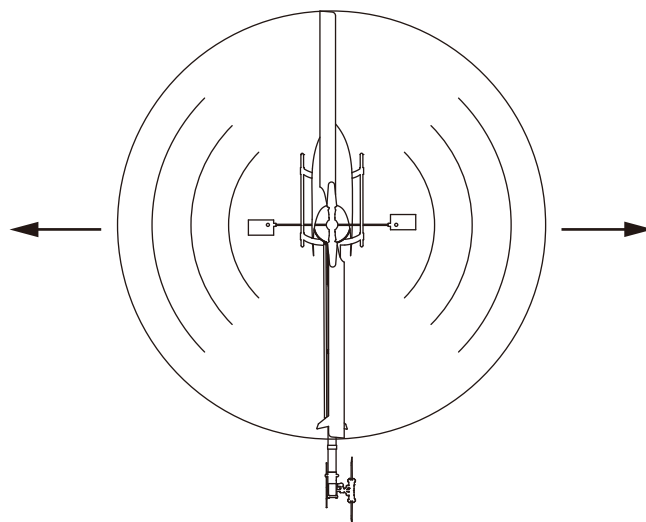
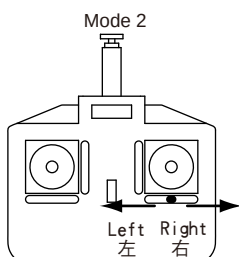
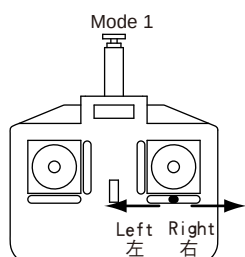


Trim - Aileron 飛行動作微調-副翼

Use the trim function on transmitter to adjust the drift when hovering.
各操控桿皆有微調撥鈕，如遇直昇機剛離地便開始偏移時請微調以修正直升機動作

Use the Aileron trim to adjust the rolling if the heli tilts to right or left when hovering.

直昇機正起飛離地時，機身朝左或右偏移時右偏移請將微調撥鈕往左撥，並重複微調之左偏移請將微調撥鈕往右撥，並重複微調之直到離地起飛無偏移現象即微調完成。



208000	X5 Basic Kit	X5 Basic Kit
208005	X5 Kit	X5 Kit
208010	X5 FES kit	X5 FES kit
208201	Touch Fastener (Set of 4)	魔鬼氈(白)4個
208202	Cable Tie with Touch Fastener 1x20cm (Set of 6)	魔術束帶 1x20cm(6件組)
208203	Cable Tie with Touch Fastener 20x285cm (Set of 4)	魔術束帶20mmx285mm(4件組)
208204	X5 key Ring	X5 金屬鑰匙圈
208302	CF main blades 500L(CFA)	碳纖槳 500L(CFA)
208303	CF Black main blades (500L)	黑碳纖槳 500L
208310	High Performance CF Stabilizer Blades Pack (66x40 mm)	高性能碳纖平衡翼(66x40 mm)
208321	Tail Boom (for X5 Shaft Driven Version-Black anodized)	尾管(X5 軸傳版用-電鍍黑)
208322	X5 Guide Wheel Assembly	X5 導輪
208323	Tail Boom (for X5 Belt Version-Black anodized)	尾管(X5 皮帶版用-電鍍黑))
208331	Tail Push Rod (2x 567 mm)	尾舵拉桿(2x567 mm)
208332	Tail Push Rod (2x 605 mm)	尾舵拉桿(2x605 mm)
208341	X5 CNC Stop Plate (Black anodized)	X5 CNC煞車盤(電鍍黑)
208342	X5 CNC Main Rotor Yoke Set (Black anodized)	X5 CNC主旋翼頭(電鍍黑)
208343	X5 CNC Main Grip Set (Black anodized)	X5 CNC主旋翼夾頭(電鍍黑)
208344	X5 Canopy Posts(Silver anodized)(39.5mm)x2 (42.5mm)x2	X5 CNC艙罩支柱(電鍍亮銀)(39.5mm)x2 (42.5mm)x2
208345	X5 Spindle Shafts	X5 橫軸
208346	X5 CNC Main Grip Levers (Black anodized)	X5 CNC主旋翼夾頭舵柄(電鍍黑)
208347	X5 CNC Stabilizer Control Set (Black anodized)	X5 CNC平衡翼控制組(電鍍黑)
208348	X5 CNC Mixing Levers (Black anodized)	X5 CNC旋翼搖臂(電鍍黑)
208349	X5 Flybar(400mm)	X5 平衡桿(400mm)
208350	X5 CNC Cross Tube Set (Silver anodized)	X5 CNC平衡桿座(電鍍亮銀)
208351	X5 CNC Swashplate (Black anodized)	X5 CNC十字盤(電鍍黑)
208352	X5 CNC Swashplate Guide (Black anodized)	X5 CNC十字盤滑軌(電鍍黑)
208353	X5 CNC Washout Arm Assembly (Black anodized)	X5 CNC剪型臂(電鍍黑)
208354	X5 CNC Washout Base (Black anodized)	X5 CNC剪型臂座(電鍍黑)
208355	X5 CNC Upper Servo Mount (Silver anodized)	X5 CNC上伺服機座(亮銀)
208356	X5 CNC Lower Servo Mount (Silver anodized)	X5 CNC下伺服機座(亮銀)
208357	X5 Main Masts (8mm)	X5 主軸(8mm)
208358	X5 Main Gear Hub with One Way Bearings	X5 主齒輪殼附單向軸承
208359	X5 Motor Mount (Silver anodized)	X5 馬達座(亮銀)
208360	X5 One Way Sleeve Set (Black anodized)	X5 單向鋼套及C型環(電鍍黑)
208361	X5 CNC Boom Clamps (Silver anodized)	X5 CNC尾管固定座(亮銀)
208362	X5 Tail Supporter Pipes(Silver anodized)	X5 CNC支撐桿(亮銀)
208363	X5 Tail Hub	X5 CNC尾旋翼頭
208364	X5 CNC Tail Fram Set (Black anodized)	X5 CNC左右尾殼板(電鍍黑)
208366	X5 CNC Torque Tube with Bearings(for 500L blades)	X5 CNC尾傳動軸桿組(適用500mm槳)
208367	X5 Torque Tube Tail Boom Assembly (Black anodized)	X5 CNC軸傳動尾管總成(電鍍黑)
208368	X5 C-Clip (Set of 6)	X5 C型環(電鍍黑)x6個
208369	CNC Tail Pitch Slider Set (for 5mm tail output shaft)	CNC螃蟹夾組(5mm尾軸用)
208370	X5 Skid Set (Silver anodized)	X5 滑橇組(亮銀)
208371	X5 CNC Tail Support Clamp(Silver anodized)	X5 CNC 水平翼固定座(電鍍亮銀)
208372	X5 CNC Tail Boom Support Set(Silver anodized)	X5 CNC 尾管支撐桿組(亮銀)

208377	X5 CNC Tail Fram Set(Embed) (Black anodized)	X5 CNC左右尾殼板(嵌合式)(電鍍黑)
208378	X5 CNC Torque Tube Tail Gear Case (Embed)	X5 CNC尾軸傳齒輪箱組(嵌合式)
208379	X5 Tail Output Shaft with Pulley	X5 尾軸附皮帶輪組
208380	Tail Output Shaft and bevel gear set	尾軸附傘齒組
208381	Front drive gear set and Pulley Shaft with Steel Gear (15T)	尾傳動導輪軸(15T)附傘齒組
208382	Mast Collar Set	主軸輪擋
208383	X5 Front Pulley Set and Pulley Shaft with Steel Gear (15T)	X5 尾傳動導輪軸(15T)附前皮帶輪組
208384	X5 Tail Output Shaft	X5 尾軸
208400	Alu Square Post with 3mm middle hole (5x5x23.5mm) and Round Post (3x4.8x23mm)	方鋁柱附3mm貫穿孔(5x5x23.5mm)及圓鋁柱(3x4.8x23mm)
208401	Thread Rod for CCPM (2x23.5mm)x3 (3x65mm)x2	CCPM螺桿組 (2x23.5mm)x3 (3x65mm)x2
208402	Alu Square Post with 3mm thread hole (5x5x23.5mm) and Round Post (3x4.8x23mm)	方鋁柱附3mm牙孔(5x5x23.5mm)及圓鋁柱(3x4.8x23mm)
208403	X5 Main Blade Linkage Rod (2x12mm)x2 (2x18mm)x2	X5 不鏽鋼連桿組 (2x12mm)x2 (2x18mm)x2
208404	X5 Main Blade Linkage Rod(2x50mm)x4	X5 不鏽鋼連桿組(2x50mm)x4
208500	FES X5 CNC Main Rotor Yoke Set (Black anodized)	X5 CNC 無平衡桿旋翼頭組
208501	FES X5 CNC Main Rotor Yoke Set (Black anodized)	X5 FES主旋翼頭
208502	FES X5 CNC Washout Arm Assembly (Black anodized)	X5 FES剪型臂組
208503	FES X5 Main Masts (8mm)	X5 FES主軸組
208504	FES X5 CNC Main Grip Levers (Black anodized)	X5 FES主旋翼舵柄組
208505	X5 CNC adjustable Mixing Levers (Silver anodized)	X5 CNC可調式旋翼搖臂(亮銀)
208506	X5 CNC Stablizer Control Set (Black anodized) (12 degrees)	X5 CNC平衡翼控制組(電鍍黑)(12度)
208601	(GUEC GM-601) Brushless Motor (1820W-kv910)	(GUEC GM-601)無刷馬達(1820W-kv910)
208610	(GUEC GE-610)ESC 100A with built-in SBEC	(GUEC GE-610)電子變速器 100A (內建SBEC)
208620	X5 Servo Horn	X5 伺服機舵角片
208700	X5 Fuselage Strengthenener and Battery Settle Kit	X5 機身強化電池組
208701	X5 CF Frame (Right)	X5 碳纖機身側板(右)
208702	X5 CF Frame (Left)	X5 碳纖機身側板(左)
208703	X5 Stiffening Plates and Mounts for electronics	X5 碳纖陀螺儀座及電池座及強化板組
208704	X5 Caonpy Plate (Set of 4)	X5 艙罩固定片(4件組)
208705	X5 Fin and Tail Set	X5 碳纖尾翼組
208706	X5 Servo Mounting Plate (Set of 8)	伺服機固定片(8件組)
208707	X5 Right GF Frame (1.6mm)	X5 黑玻纖機身側板(右)(1.6mm)
208708	X5 Left GF Frame with Metal parts (1.6mm)	X5黑玻纖機身側板含附件(左)(1.6mm)
208709	X5 Stiffening Plates and Mounts for electronics (1.6mm)	X5 黑玻纖陀螺儀座及電池座及強化板組(1.6mm)
208710	X5 Fiber Fin and Tail(1.6mm)	X5 黑玻纖尾翼組(1.6mm)
208711	X5 Servo Mounting Plates(1.6mm)	X5 黑纖伺服機固定片(1.6mm)
208712	X5 fiber Caonpy Plate (Set of 4)(1.6mm)	X5 黑玻纖艙罩固定片(4件組)(1.6mm)
208751	Bearings Pack (6x13x5)x4	軸承(6x13x5)x4
208752	Bearings. Pack (6x13x3.5)x4	軸承(6x13x3.5)x4
208753	One Way Bearings(12x18x16)	單向軸承(12x18x16)
208754	Flange Bearings (F5x10x4)x2	法蘭軸承(F5x10x4)x2
208755	Thrust Bearings(T6x12x4.5)x2	止推軸承包(T6x12x4.5)x2

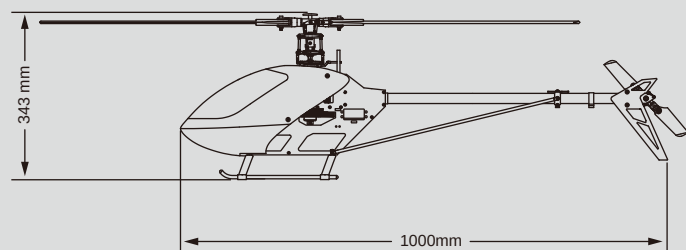
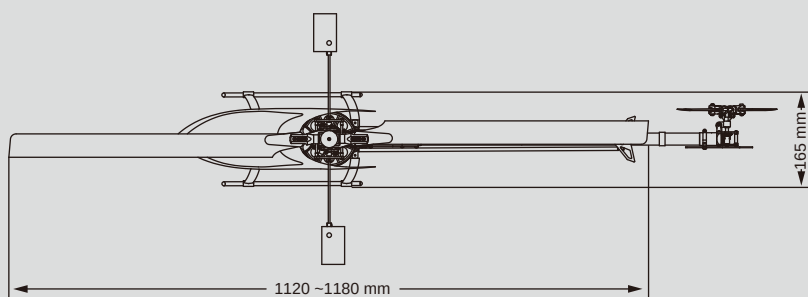
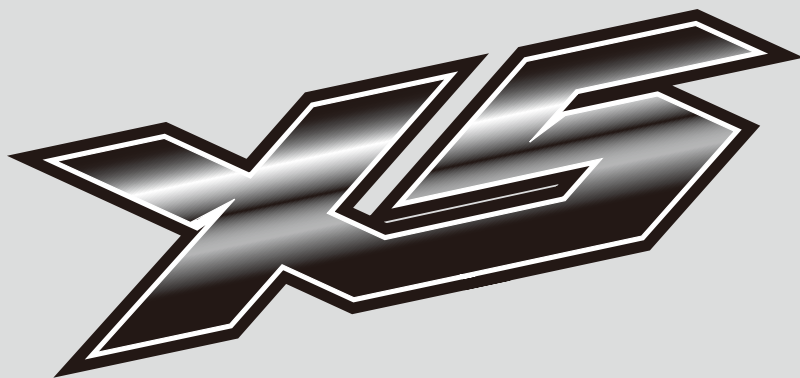
208756	Bearings(4x9x4)x2	軸承(4x9x4)x2
208757	Thrust Bearings(T4x9x4)x2	止推軸承包(T4x9x4)x2
208758	Flange Bearings(F3x8x4)x2	法蘭軸承(F3x8x4)x2
208759	Bearings(3x6x2.5)x4	軸承包(3x6x2.5)x4
208760	Bearings Pack (5x11x4)x4	軸承(5x11x4)x4
208761	Bearings Pack (8x16x5)x3	軸承(8x16x5)x3
208762	Bearings Pack (8x14x4)x3	軸承(8x14x4)x3
208763	Bearings Pack (12x18x4)x3	軸承(12x18x4)x3
208764	Bearings Pack (6x10x3)x2	軸承(6x10x3)x2
208765	Bearings Pack (4x7x2.5)x4	軸承(4x7x2.5)x4
208766	Bearings Pack(3x8x4)x4	軸承(3x8x4)x4
208781	X5 Washer Pack (W6.2x7.6x0.5)(W6.1x10x1.5)(W4.1x10x1.4) (W3.1x4.6x0.6)(W3x6x0.5)(W4.1x6x0.5)	X5 墊片包(W6.2x7.6x0.5)(W6.1x10x1.5)(W4.1x10x1.4) (W3.1x4.6x0.6)(W3x6x0.5)(W4.1x6x0.5)
208782	Stainless (4.8mm) Balls (Long stand x5pcs, Short Stand x5pcs)	不銹鋼(4.8mm)球頭組(長頸x5個及短頸x5個)
208783	Stainless (4.8mm) Balls (Long stand x4pcs, Short Stand x2pcs,Ball with Extension x1pc)	不銹鋼(4.8mm)球頭組(長頸x4個,短頸x2個, 球頭附延伸桿x1個)
208784	X5 Tail Support Pipe Link	X5 尾支撐桿頭含螺絲包
208785	Spacer (3x6x4) x8pcs	襯套(P-3x6x4)x8pcs
208786	X5 Steel Pinion Gear Pack (16T- for 5.0mm shaft)	X5 鋼製馬達齒16T(孔徑5.0mm)
208787	Countsunk Washers (3x8x2)x20	沉頭墊片組(3x8x2)x20
208788	X5 14T Steel Pinion Gear Pack (Bevel)	X5 14T 鋼製馬達斜齒
208789	X5 15T Steel Pinion Gear Pack (Bevel)	X5 15T 鋼製馬達斜齒
208790	X5 16T Steel Pinion Gear Pack (Bevel)	X5 16T 鋼製馬達斜齒
208800	X5 Canopy (Black and White)	X5 玻纖黑白噴漆座艙組
208801	X5 FRP Painted Canopy(A Type)	X5 玻纖彩繪噴漆座艙組(A型)
208802	X5 FRP Painted Canopy(B Type)	X5 玻纖彩繪噴漆座艙組(B型)
208803	X5 FRP Painted Canopy(C Type)	X5 玻纖彩繪噴漆座艙組(C型)
208804	X5 FRP Painted Canopy(D Type)	X5 玻纖彩繪噴漆座艙組(D型)
208806	Stainless (4.8mm) Balls (M3)	不銹鋼(4.8mm)球頭組(M3)
208849	Socket Head Button Screw - Black (Semi)	半圓頭內六角螺絲包-黑色(M3x10)x10個(半牙)
208850	Socket Head Cap Screw - Black (M3x32)x10pcs	內六角螺絲包黑色(M3x32)x10個
208851	Self Taping Screws-Silver (2x8)x12pcs	十字自攻牙螺絲包-銀色(2x8)x12個
208852	Mechine Screws-Silver(2x8)x12pcs	十字機械牙螺絲包-銀色(2x8)x12個
208853	Socket Head Button Self Taping Screws - Black (3x8)x10pcs	半圓頭內六角自攻牙螺絲包-黑色(3x8)x10個
208854	Countersunk Screw - Silver (M3x5)x10pcs	十字皿頭螺絲包-銀色(M3x5)x10個
208855	Socket Countersunk Screw - Black (M3x6)x10pcs	內六角皿頭螺絲包-黑色(M3x6)x10個
208856	Socket Head Button Screw - Black (M3x4)x10pcs	半圓頭內六角螺絲包-黑色(M3x4)x10個
208857	Socket Head Button Screw - Black (M3x5)x10pcs	半圓頭內六角螺絲包-黑色(M3x5)x10個
208858	Socket Head Button Screw - Black (M3x6)x20pcs	半圓頭內六角螺絲包-黑色(M3x6)x20個
208859	Socket Head Button Screw - Black (M3x7)x10pcs	半圓頭內六角螺絲包-黑色(M3x7)x10個
208860	Socket Head Button Screw - Black (M3x8)x10pcs	半圓頭內六角螺絲包-黑色(M3x8)x10個
208861	Socket Head Button Screw - Black (M3x10)x10pcs	半圓頭內六角螺絲包-黑色(M3x10)x10個
208862	Socket Head Button Screw - Black (M3x14)x10pcs	半圓頭內六角螺絲包-黑色(M3x14)x10個
208863	Socket Head Button Screw - Black (M3x18)x10pcs	半圓頭內六角螺絲包-黑色(M3x18)x10個
208864	Semi-threaded Socket Head Cap Screw - Black (M3x16)x10pcs	半牙內六角螺絲包-黑色(M3x16)x10個
208865	Socket Set Screw (M3x3)x10pcs	內六角止付螺絲包-黑色(M3x3)x10個

208866	Socket Set Screw (M4x4)x10pcs	內六角止付螺絲包-黑色(M4x4)x10個
208867	Nut (N2x4)x30pcs	螺帽(N2x4)x30個
208868	Nylon Lock Nut (N3x5.5L)x10pcs	止滑螺帽(N3x5.5L)x10個
208869	Nylon Lock Nut (N4x7L)x10pcs	止滑螺帽(N4x7L)x10個
208870	Socket Head Cap Screw - Black (M2.6x10)x10pcs	內六角螺絲包-黑色(M2.6x10)x10個
208871	Socket Head Cap Screw - Black (M3x6)x10pcs	內六角螺絲包-黑色(M3x6)x10個
208872	Socket Head Cap Screw - Black (M3x10)x10pcs	內六角螺絲包-黑色(M3x10)x10個
208873	Socket Head Cap Screw - Black (M3x12)x10pcs	內六角螺絲包-黑色(M3x12)x10個
208874	Socket Head Cap Screw - Black (M4x10)x10pcs	內六角螺絲包-黑色(M4x10)x10個
208875	Semi-threaded Socket Head Cap Screw - Black (M4x23)x10pcs	半牙內六角螺絲包-黑色(M4x23)x10個
208876	Socket Head Cap Screw - Black (M2x5)x10pcs	內六角螺絲包-黑色(M2x5)x10個
208877	Socket Head Cap Screw - Black (M2x8)x10pcs	內六角螺絲包-黑色(M2x8)x10個
208878	Socket Head Cap Screw - Black (M2x12)x10pcs	內六角螺絲包-黑色(M2x12)x10個
208879	Socket Set Screw (M3x12)x10pcs	內六角止付螺絲包-黑色(M3x12)x10個
208880	Washer(W4.2x8.4x0.5)x10pcs	華司(W4.2x8.4x0.5)x10個
208881	Washer(W8x13x2)x5pcs	華司(W8x13x2)x5個
208882	Tail Output Shaft Washer(W5x8x1.25)x4pcs	尾軸華司(W5x8x1.25)x4個
208883	Stainless Washer (W12.2x17x0.2)x10pcs	不鏽鋼華司(W12.2x17x0.2)不鏽鋼x10個
208884	Spacer (P2x3.5x2.5 x 10pcs)(P2x3x1.5 x 10pcs)	襯套(P2x3.5x2.5 x 10個)(P2x3x1.5 x 10個)
208885	Ball with Stand(4.8mm)	4.8mm球頭
208890	Canopy Damper x 6pcs	艙罩墊圈x6個
208901	120T Main Gears	120T主齒盤
208902	Damper rubber (Hardness 75)	橫軸橡皮墊(硬度75)
208903	61T Gear (Set of 2)	61T齒輪(2件組)
208904	Double Link (L-30)	L-30拉桿
208905	Double Link (L-35)	L-35拉桿
208906	Ball Links Pack (4.8mm)	拉桿頭(4.8mm)
208907	Tail Pitch Control Lever Set	尾舵角片
208908	Tail Rotor Blade Set (82mm)	尾旋翼(82mm)
208909	X5 Torque Tube Drive Gear Set	X5 尾軸傳動齒輪包
208911	X5 Tail Rotor Bel 572XL	X5皮帶 572XL
208912	Damper rubber (Hardness 95)	橫軸橡皮墊(硬度95)
208913	120T Main Gears(Bevel)	X5 120T 主齒盤(斜齒)
208914	X5 Tail Gear Case Set	X5 尾殼
208915	X5 Flybar Paddles Set	X5 平衡翼
208916	X5 Fin & Stabilizer Set	X5 尾翼
208920	Torque Tube Front Gear Set	尾軸傳動前齒輪組
208921	Tail Support Clamp	尾管夾
208922	Rudder Control Guide	拉桿座
208923	X5 Tail Pulley Set	X5 尾皮帶輪
208924	X5 Tail Pitch Assembly(for 5mm)	X5 螃蟹夾組(5mm尾軸用)
208925	X5 Front Pulley Set	X5 前皮帶輪
208950	X5 Tail Hub and Grip Assembly	X5 尾旋翼夾頭組
208951	X5 Tail Hub and Grip Assembly and Tail Output Shaft bevel gear set	X5 尾旋翼夾頭附尾軸附傘齒組
208970	X5 Brace Set	X5 支撐架組
835503	Socket Set Screw(M3x3mmx10pcs)	內六角止付螺絲(M3x3mmx10個)
842005	Socket Head Cap Screw(M2x5)x20pcs	內六角螺絲(M2X5)x20個

852020	Gold Plated Connectors (2.0mm) with Heat Shrink Tubing	馬達用24K金接頭附熱縮套(2.0mm)
883550	Ball Links Pack(3.5mm)	拉桿頭(3.5mm)
901301	Steel Pinion Gear Pack(13T- for 5.0mm shaft)	鋼製馬達齒13T(孔徑5.0mm)
901401	Steel Pinion Gear Pack(14T- for 5.0mm shaft)	鋼製馬達齒14T(孔徑5.0mm)
901501	Steel Pinion Gear Pack(15T- for 5.0mm shaft)	鋼製馬達齒15T(孔徑5.0mm)
901601	Steel Pinion Gear Pack(16T- for 5.0mm shaft)	鋼製馬達齒16T(孔徑5.0mm)
910010	Blade Support(for H425~H550)	主翼支撐墊(H425-H550用)
910020	Reusable Cable Tie(Set of 4)	可開啓束帶(4件組)
910021	Long Cable Tie with Touch Fastener 28cm(Set of 4)	魔術束帶 28cm(4件組)
910022	Cable Tie with Touch Fastener 17cm(Set of 4)	魔術束帶 17cm(4件組)
910030	Cable Tie with Touch Fastener 1x20cm(Set of 6)	魔術束帶 1x20cm(6件組)
922001	Servo Extension Wire(200mm)	伺服機延長線(200mm)
924365	(GUEC GU-365) Flybarless E-Stabilizer(FES)	(GUEC GU-365) FES 無平衡桿電子式穩定系統
929020	Gold Plated connectors (2.0mm) with polarized housings(for Battery)	電池用24K金接頭(2.0mm)
944201	Transmitter Neck Strap	遙控器吊帶

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GAUI

TAI SHIH HOBBY CORPORATION

<http://www.gauai.com.tw>

e-mail: gauai@gauai.com.tw

FAX: +886-2-2610-5567

MADE IN TAIWAN