

# MICRO HELICOPTER T-REX 100X

## CONSIDERATION DURING ASSEMBLY AND FLIGHT ADJUSTMENTS

### 組裝與飛行調整注意事項

# ALIGN



2.4G  
AFHDS

With **A5**  
2.4G Transmitter

Thank you for buying ALIGN products. T-REX 100X is a micro RC helicopter that designed for smaller flight space. By connecting the A5 2.4G transmitter attachment to your trendy iPhone®, iPad®, or iPod touch®, it will instantaneously transformed into a controller! In addition to controlling with the virtual sticks, the ALIGN Flight App can utilize the phone's gyroscopic sensor to detect motion/control.

感謝您選購亞拓產品，T-REX 100X 是一台專為室內飛行設計的遙控直昇機，專用的A5 2.4G 發射器搭配正夯的iPhone®、iPad®、iPod touch® 就能搖身一變為遙控器。除了一般的搖桿操控方式外，還提供了新一種操控方式，只要搖擺手機姿態就能改變直昇機的動作。

For easier usage of T-REX 100X, please read through this manual carefully prior to helicopter assembly and operation.

為了讓您更方便、更容易的使用T-REX 100X，請您仔細閱讀以下說明書內容再進行組裝與操控。



For more detailed instruction, please check our website.  
Http://www.align.com.tw/alignhtml/EN/video/video100\_1.html  
更詳細的操作說明請上網。

### HELICOPTER ASSEMBLY 直昇機組裝

- ★ Please tighten with suitable force, as over tighten will cause deformation of the head block, resulting in poor concentricity. 請以適當扭力鎖緊即可，過度鎖緊會導致主旋翼固定座同心度不良。
- ★ Improperly assembled main rotor housing may cause excessive vibration, affecting rudder gyro locking effectiveness, resulting in drifting of tail. 主旋翼固定座組裝不當時會產生嚴重抖動，影響尾舵螺儀鎖定效果，造成尾舵偏移。

Press the main rotor assembly onto main shaft until fixed in position.  
主旋翼組壓入主軸至定位。

Ball link B installation position (11.5mm)  
連桿頭B組裝位置(11.5mm)

Ball link B  
連桿頭B

Do not overtighten the collar screw and make sure the control arm is working smoothly.  
軸套螺絲請勿鎖緊，確認控制臂作動順暢不干涉。

Screw  
圓頭十字自攻螺絲  
1.4x7mm

While fastening the screw, please make sure the hole positions for main rotor holder and main shaft are symmetrical. Please tighten with suitable force, as over tighten will cause deformation of the head block, resulting in poor concentricity.  
鎖附螺絲時，請將主旋翼固定座與主軸之孔位對正。請以適當扭力鎖緊即可，過度鎖緊會導致主旋翼固定座同心度不良。

Fasten the screw in to the larger hole.  
螺絲由較大孔處鎖入



### INSTALLATION OF ALIGN FLIGHT APP 安裝 ALIGN FLIGHT 軟體

ALIGN Flight app needs to be installed on your iPhone®. Download the app through App store and install accordingly:  
在進行操控之前，手機上必須先安裝好ALIGN Flight軟體，安裝方式如同安裝其他手機軟體一樣，只要透過App Store下載安裝即可，下面為各位說明下載安裝程序。

#### Step 1



Tap on App Store on iPhone®.  
手機點選App Store程式。



Or you can scan the QR code below to link to ALIGN Flight App page

或者您可以使用上面QR code直接搜尋下載ALIGN Flight軟體

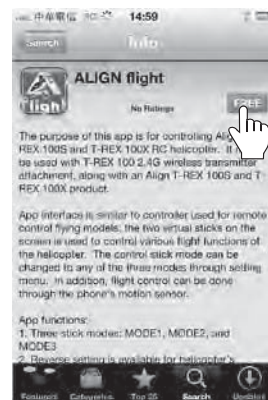
#### Step 2



Use "ALIGN, Align Flight, T-REX 100" as key words to search. After Search, tap on "Align Flight" App to enter instruction/install page.

使用ALIGN、ALIGN Flight、T-REX 100關鍵字搜尋。搜尋完畢後，點選ALIGN Flight軟體進入介紹與安裝頁面。

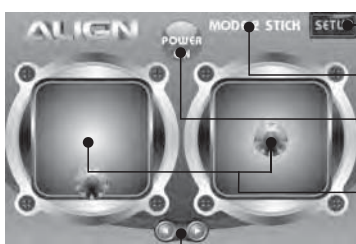
#### Step 3



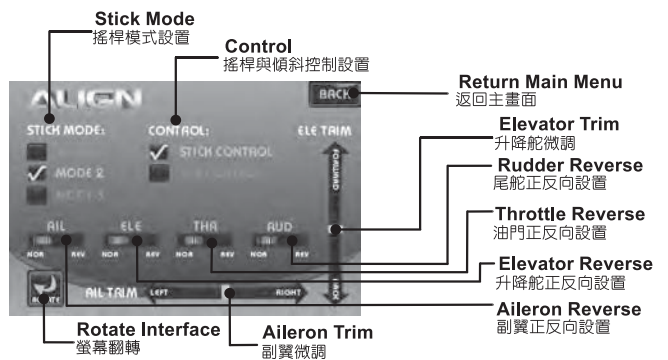
Tap "FREE" and the status bar will change to "INSTALL". Tap "INSTALL" and the installation will be automatically started till the App is installed.

點選FREE後跳出INSTALL，再點選INSTALL就會自動執行安裝程序並且完成安裝。

### ALIGN FLIGHT App ILLUSTRATION 操作介面介紹



System Setup  
系統設定  
Control MODE  
控制模式顯示  
Power Switch  
電源開關  
Charge Direction with touch(Referce "systemsetup ==>Stick")  
觸控搖桿  
Rudder Trim  
尾舵微調



Stick Mode  
搖桿模式設置

Control  
搖桿與傾斜控制設置

Return Main Menu  
返回主畫面

Elevator Trim  
升降舵微調

Rudder Reverse  
尾舵正反向設置

Throttle Reverse  
油門正反向設置

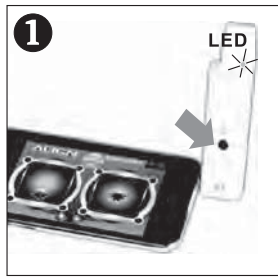
Elevator Reverse  
升降舵正反向設置

Aileron Reverse  
副翼正反向設置

Rotate Interface  
螢幕翻轉

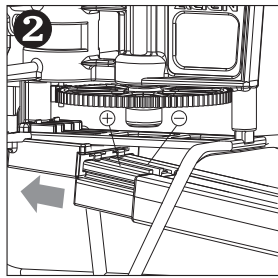
Aileron Trim  
副翼微調

## A5 2.4G TRANSMITTER USAGE A5 2.4G發射器使用方式



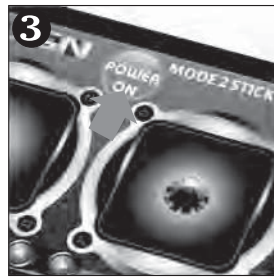
Connect the A5 2.4G Transmitter onto phone. Press and hold power button for 2 second to power up, as indicated by flashing blue LED.

將A5 2.4G發射器裝到手機的耳機孔上，長按電源鍵2秒開啓電源，藍色LED閃爍。



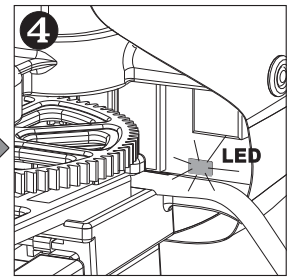
For first time use or when there is an interference while binging, please place the helicopter on level surface, push the lipo battery pack in the direction shown in diagram until fixed into position. At this time avoid moving the helicopter so the radio and gyro system can initialize and the red LED on the receiver board will be start flashing.

發射器與接收機對頻，將直昇機置於平坦位置，依圖示方向插入Li-Po電池至定位，不要再移動機身，使陀螺儀讀取中立點，此時接收板上紅色LED燈會閃爍。



Tap the POWER OFF switch on the screen to POWER ON. Once the A5 2.4G transmitter is synchronized with the software, LED will become solid lit and start binding with receiver board.

點選螢幕上的電源開關，切換為POWER ON。當手機與A5 2.4G發射器連線成功時，藍色LED會呈現恆亮狀態，同時與接收板進行對頻。



The red LED on receiver board will blink during radio initialization, and becomes steady after 4 seconds, indicating successful radio binding. If it continues to blink, radio binding has failed and needs to be restart step 2 to step 3 again. After the radio binding is done, you don't need to re-bind it anymore. When turning off A5 transmitter attachment, simply press the power button on A5 for 1 second to turn it off.

對頻中接收板的紅色LED會閃爍，約4秒後LED恆亮表示對頻成功，若LED仍持續閃爍表示對頻失敗，必須再次執行步驟2至步驟3。只要對頻成功，每次飛行即不須再重新對頻了。關閉A5電源時，只要長按發射器上的電源鍵1秒，即可關閉電源。

Note: 1. Suggest to switch the mobile mode into flight mode to avoid the interruption of incoming calls; A5 transmitter has build-in incoming calls interruption protection to shut down the throttle for safety.  
2. If the synchronization is not successful (as indicated by continuous flashing LED), turn up the volume on the phone.

註：1. 建議飛行前將手機通訊模式切換到飛行模式，避免來電時中斷飛行；A5發射器內置來電中斷保護功能，使飛行中的直升機自動關閉油門，確保安全。  
2. 如果連線沒有成功，LED燈會呈現閃爍狀態，這表示手機的音頻訊號太弱，這時只要把手機音量調大即可改善。

## CONTROL USING PHONE'S MOTION SENSOR 使用手機傾斜模式操控

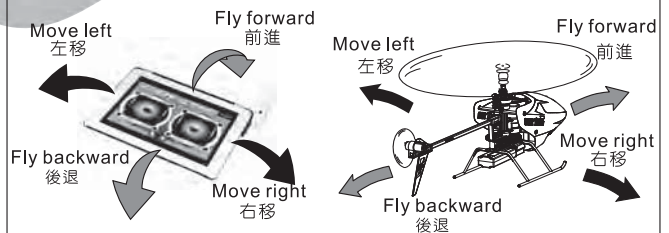
Check box within the CONTROL section of SETUP menu to activate motion control mode.

在SETUP頁面的CONTROL項目中，勾選TILT CONTROL選項，此時就會開啓手機內建的陀螺儀感應器，讓手機轉換成傾斜模式來操控。



Tilt the phone forward/backward to move the helicopter forward/backward and tilt the phone left/right to move the helicopter left/right.

當手機姿態往前後方向傾時，直昇機會執行升降前後的動作；當手機姿態往左右傾時，直昇機會執行翼向左、向右的動作。



## USAGE INSTRUCTIONS AND CHECK LISTS 開機步驟與飛行前檢查

★ With the helicopter placed on level surface, push the lipo battery pack in the direction shown in diagram until fixed into position. **At this time avoid moving** the helicopter so the radio and gyro system can initialize, as indicated by the flashing red LED on receiver board.

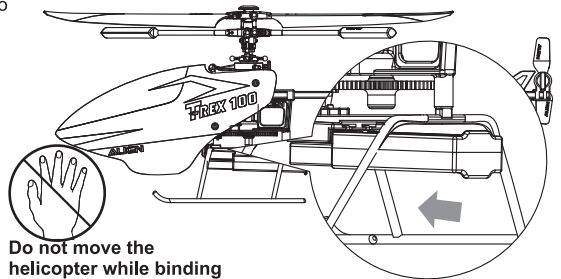
請將直昇機置於平坦的位置後，開啟發射器與螢幕上的電源接著將Li-po電池依圖示的方向推入電池座至定位，此時不要再移動機身，使發射器對頻與陀螺儀讀取中立點。

★ If helicopter is moved during initializing process, the gyro will not center properly causing helicopter rudder to yaw excessively. When this happens please unplug and replug the battery to reset.

對頻過程中若移動機身會導致陀螺儀中立點錯誤，飛行時直昇機尾部會嚴重偏移，請拔出電池並重新接電。

★ Motor should not be run without loading main or tail rotor blades to avoid motor burnout. 馬達不可在沒有帶動主旋翼或尾旋翼的狀態下單獨通電運轉，以避免馬達燒毀。

★ Warning: If left connected in the helicopter for long duration, the battery may be damaged due to over-discharge, or even become fire hazards. 電池未取下，將導致電池過放電而損壞，甚至造成起火燃燒的危險。



Do not move the helicopter while binding  
對頻中勿移動機身

## ADJUSTMENT OF EACH TRIM 飛行動作微調

★ Slowly raise the throttle stick and just as the helicopter lift-off the ground, you can use the trim to correct the action if the helicopter leans in a different direction.

慢慢升起油門搖桿，當直昇機停旋時，若直昇機傾向不同方向，可進入"SETUP"畫面使用微調修正動作。



★ If helicopter yaws clockwise or counterclockwise after lift off, trim the tail with rudder trim. There are no limit to the rudder trims. Flyer can continuously trim the rudder until tail drift stops.

直昇機起飛後若機頭往順時針或逆時針方向慢慢偏移時，可使用微調修正。尾舵的微調量並無限制，使用者可一直調整至尾舵不偏移為止。



※ If the problem is still there even after tried above, stop flying and contact with your seller.

※ 在做完以上調整後，仍然無法改善情況時，應立即停止飛行並連絡您的經銷商。

G20378 2011.12

## **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **FCC Radiation Exposure Statement**

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## **Caution!**

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

## NCC 警告語

根據低功率電波輻射性電機管理辦法規定：

### 第十二條

經形式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

### 第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。