

GAUI

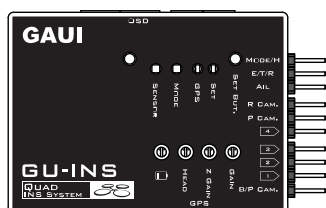
Specifications 規格

1. Dimensions : Main controller: 53.5 x 38.5 x 12mm GPS system: 42 x 34 x 15mm
Weight : Main controller: 27g (w/o cables), GPS system: 23g (with cable)
2. Frequency: 300Hz output to ESC
3. Operating temperature: -20~80°C
4. Operating modes: Rate (manual) mode, Auto balance mode, GPS positioning mode.
5. Rate (manual) mode: Max angular velocity: 300 degree/sec.
6. Auto balance mode: Max tilt angle: 60 degree.
7. GPS positioning mode:
 - a. Hovering accuracy: Horizontal: $\pm 2m$, Vertical: $\pm 0.5m$
 - b. Max yaw angular velocity: 250 degree/sec
 - c. Max tilt angle: 45 degree.
 - d. Max horizontal speed: 10 m/s , 36 km/hr
 - e. Max vertical speed: 8 m/s (horizontal posture)
8. GU-INS provides pitch and rolls output signals, can work with different types of camera mounts.
9. Fail-safe functions: Automatic Go-Home, Signal lost Go-Home, Low voltage protection.
10. Suitable wind condition: < 10 m/s

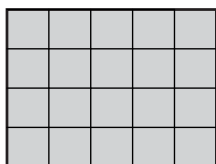


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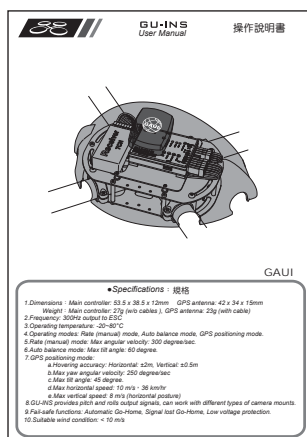
Content 內容物



GU-INS main controller
GU-INS本體



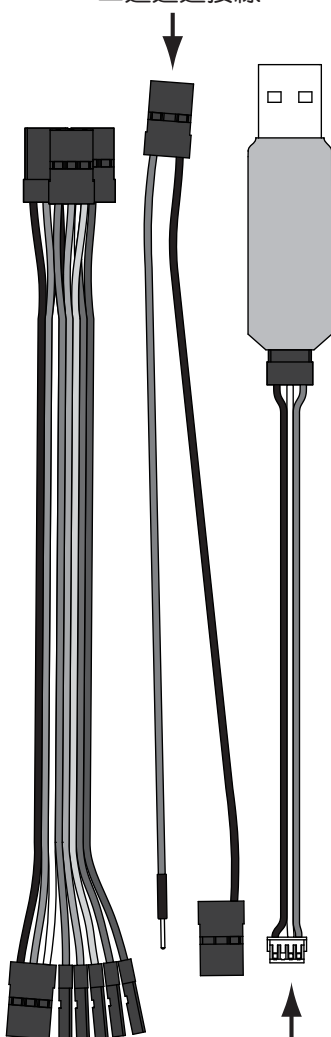
Damper sponges
防震泡棉



User manual
使用說明書

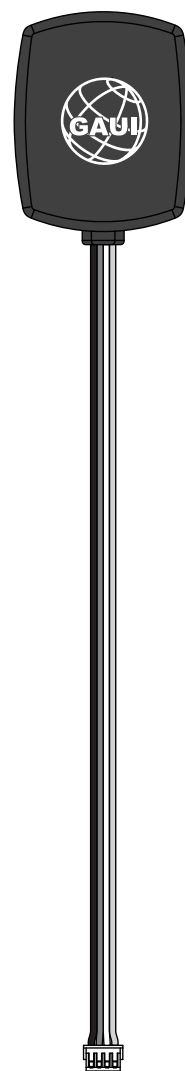
Two channel connection cable

二通道連接線



Six channel connection cable
六通道連接線

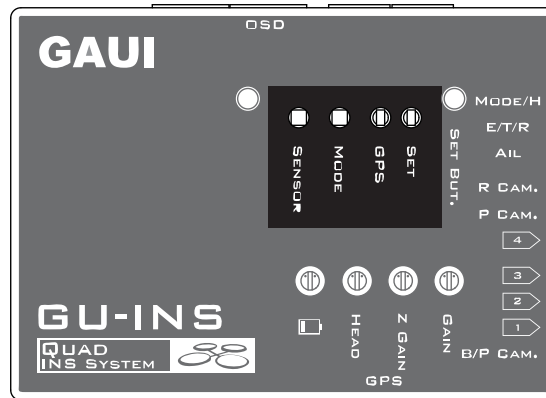
USB cable
USB連接線

















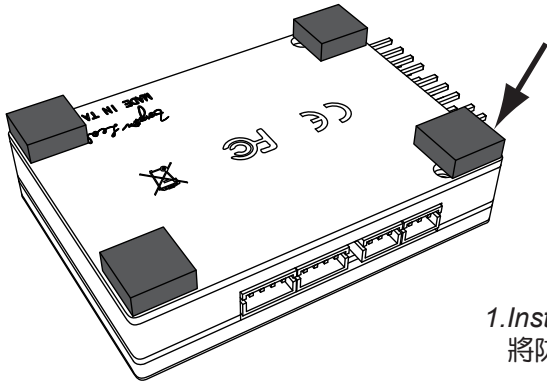
GPS system
GPS系統



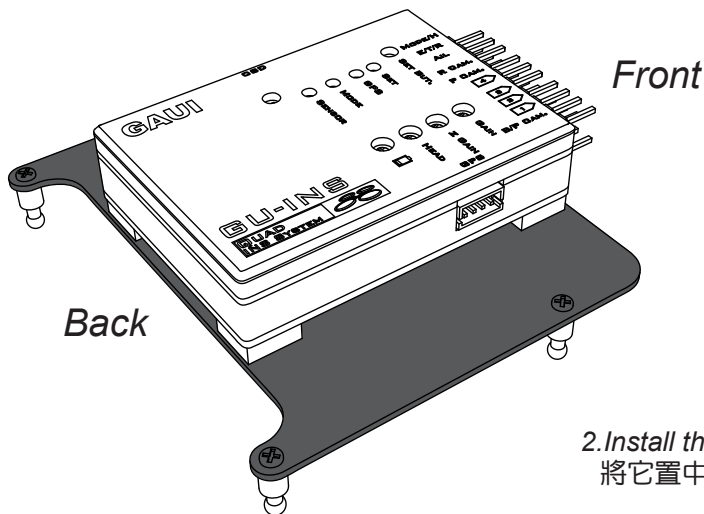
1. *This product is NOT a toy, please keep away from crowd and buildings while flying.*
本產品並非玩具，飛行時請遠離人群及公共設施。
2. *Do not use this product for illegal purposes, user is responsible for following the law in each country.*
請勿將本產品使用在不法用途，若觸犯法律須自行負責。
3. *For your safety, please remove the propellers before setup and calibration procedures.*
為了安全，在進行設定、校正時請移除螺旋槳。
4. *The throttle calibration procedure is very important (P.6), it calibrates not only the signals of ESC, but also central position of the transmitter. Therefore, do not move other sticks or switches except throttle stick; if you change the transmitter, make sure you execute the throttle calibration procedures.*
遙控器與GU-INS的訊號設定(P. 6)非常重要，它除了設定電子變速器的高低訊號，同時也執行遙控器中立點校正，所以設定時除了移動油門桿外不要碰觸其它動作；若有更換遙控器請務必再次執行訊號設定動作。
5. *The calibration of magnetic north and due north needs to be done thoroughly (P.14), or the 500X will slant or circle under GPS positioning mode.*
磁北與正北的校正(P. 14)需確實執行，否則在定位模式下會造成修正偏差，造成繞圈現象。
6. *Under GPS positioning mode, all movements of the 500X are based on the speed signals of GPS. Therefore, if the GPS signal is bad or interfered, the 500X will become uncontrollable. If so, please switch back to auto-balance mode.*
在GPS定位模式飛行時，所有的動作皆以GPS的速度訊號為基礎，因此若GPS訊號不良或受到干擾時會造成機體無法控制，若有此現象請切回自動平衡模式即可。
7. *Do not insert the GPS system indoor, the 500X will become uncontrollable due to bad signal reception. (You can still apply altitude maintaining function under GPS positioning mode as long as you unplug the GPS system.)*
請勿在室內接上GPS系統，因為不良的訊號會造成機體無法控制。(只要不接GPS插頭，在室內仍可採用定位模式來做定高度飛行。)
8. *Fly the 500X in an open area, and keep away from buildings. The GPS signal might be interfered due to signal refraction from buildings.*
飛行時請在空曠場地，儘量避免接近建築物，因為GPS訊號有可能因為建築物的折射造成訊號偏移。
9. *Under GPS positioning mode, please keep the 500X away from magnetic materials, such as hovering above iron plate, the magnetometer inside the GU-INS will be interfered and result in instable heading.*
在GPS定位模式下請勿接近導磁物體，如在鐵板上空停懸，這會干擾系統裡的磁力計而造成頭向不穩。
10. *Keep the GU-INS away from magnetic materials (irons, screws, motor and magnet), those will interfere the GU-INS. (The screws of GU-INS are made of copper.)*
GU-INS系統旁請勿靠近導磁物體(如鐵、螺絲、馬達及磁鐵)，這些都會干擾GU-INS系統(GU-INS上下蓋採用銅螺絲固定)。
11. *If the 500X can not make a 360 degree turn, it means that the magnetometer of GU-INS is under interference. Please keep away from sources of interference or execute the calibration process. (Please visit GAUI official website for detail information.)*
在GPS定位模式若無法360度轉向，這代表磁力計受到干擾，請遠離干擾源或進行校正(請上泰世網站)。
12. *When it is windy, we suggest to take off and land with auto-balance mode. Under GPS positioning mode, altitude maintaining function is more susceptible to interference. Therefore, it would be more dangerous while the 500X is close to the ground.*
風勢較大時，起飛及降落建議採用自動平衡模式，因為在定位模式下氣壓變化容易干擾高度指令，在接近地面時比較危險。
13. *You can activate the fail safe (F/S) function on your transmitter, set AILE, ELEV, THRO, and RUDD stick to its central position, and assign the F/S to activate "GPS positioning" and "HOME" function for further protection.*
若你的遙控器有失聯保護功能，你可以將AILE、ELEV、THRO、RUDD設為搖桿的中間值，並且啟動定位模式及回航點功能來多一層保護。
14. *You can download the latest firmware from GAUI official website.*
最新資料請上泰世網站下載更新。



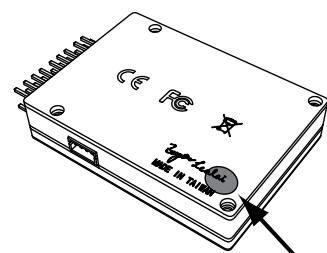
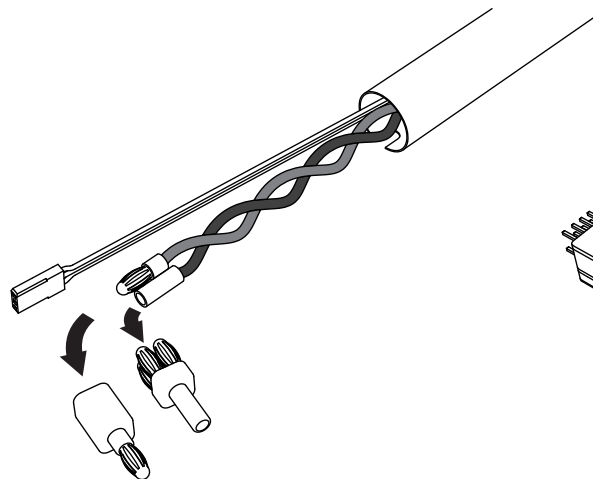
- 1 sec
- 1.SET:  Off---- Normal
不亮----表示正常。
-  Flashes 3 times and turn off---- Setup is completed.
閃爍三下後停止----表示設定確認。
-  Solid---- Execute low voltage protection function.
恆亮----表示要執行低電壓保護。
- 2.GPS:  Off---- GPS system is not inserted.
不亮----表示沒接GPS系統。
-  Fast flash---- Execute "HOME" function.
快閃----表示執行回航點指令。
-  Slow flash---- Searching for GPS signals.
慢閃----表示正在收尋GPS訊號。
-  Solid---- GPS signal searching procedure is completed.
恆亮----表示GPS定位完成。
- 3.MODE:  Slow flash---- Manual mode.
慢閃----手動模式。
-  Fast flash---- Auto-balance mode.
快閃----自動平衡模式。
-  Solid---- GPS positioning mode.
恆亮----定位模式。
-  Fast RED flash---- Battery voltage is too low, low voltage protection function is activated.
快閃紅燈----表示電壓過低啟動保護措施。
-  Solid RED---- System error, please restart the system.
恆亮紅燈----表示內部封包有失聯，請重新開機。
- 4.SENSOR:  Green ---- System ok.
亮綠燈----表示內部感測器數值正常。
-  Red ---- System error, please restart the system.
亮紅燈----表示內部感測器數值異常，請重新開機。



1. Install the damper sponges to the corners under GU-INS.
將防震泡棉貼於GU-INS本體的四個角落。



2. Install the GU-INS to the center of the platform.
將它置中貼於500X的平台上。

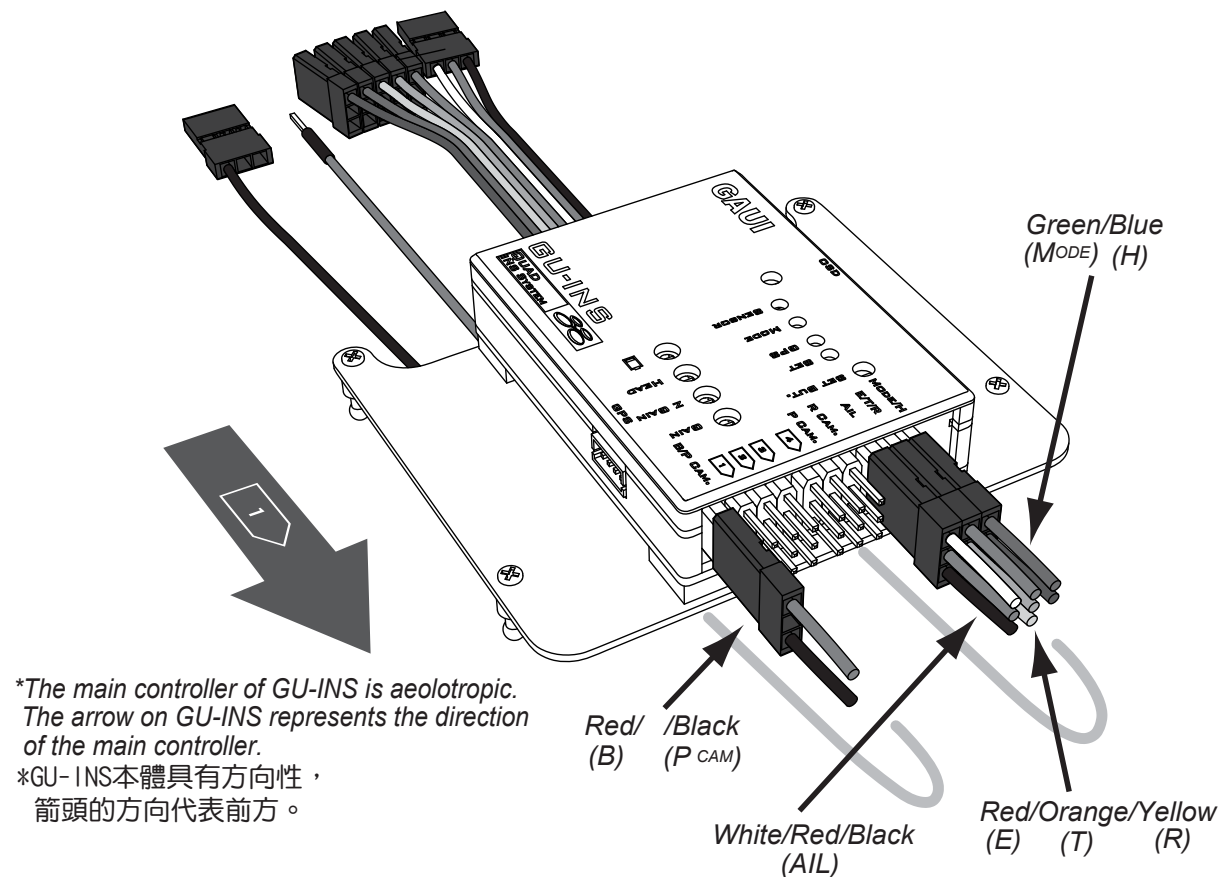


Magnetometer
磁力計位置

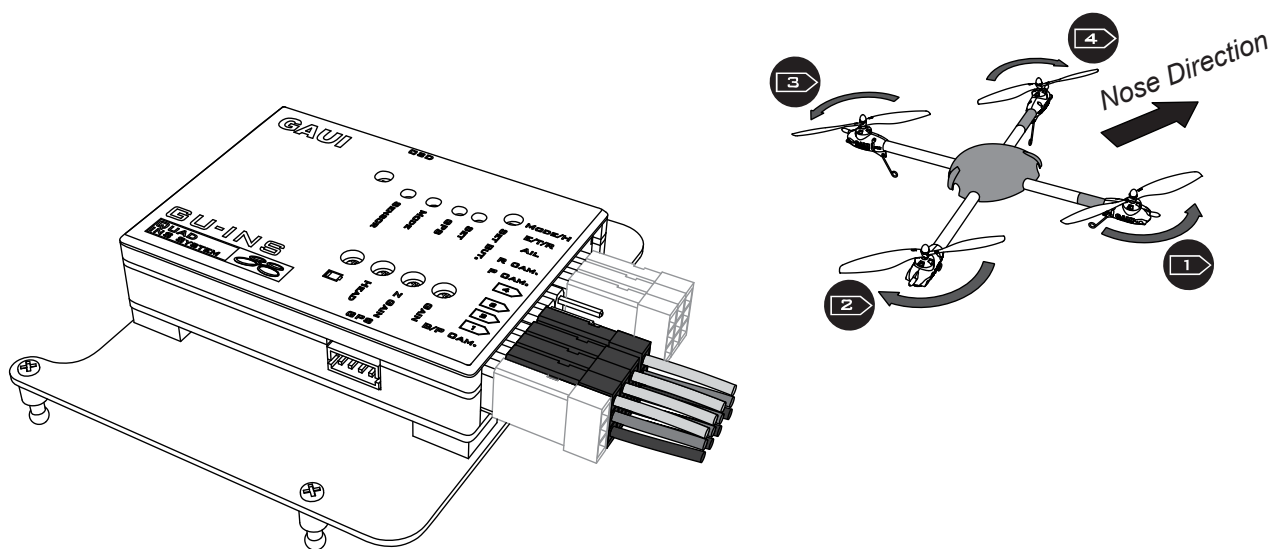
3. Entwine the power cable about 4 circles as illustrated, and then insert it to the 4-in-1 power connector.
(This is to reduce magnetic interference generated by the current.)
將四個電子變速器的電源線如圖纏繞約四圈後再插入四合一接頭。(這是為了減低電流所產生的磁場干擾)



*Please keep GU-INS away from magnetic material interference.
*GU-INS附近要遠離磁鐵或導磁材料，以避免干擾內部的感測器。



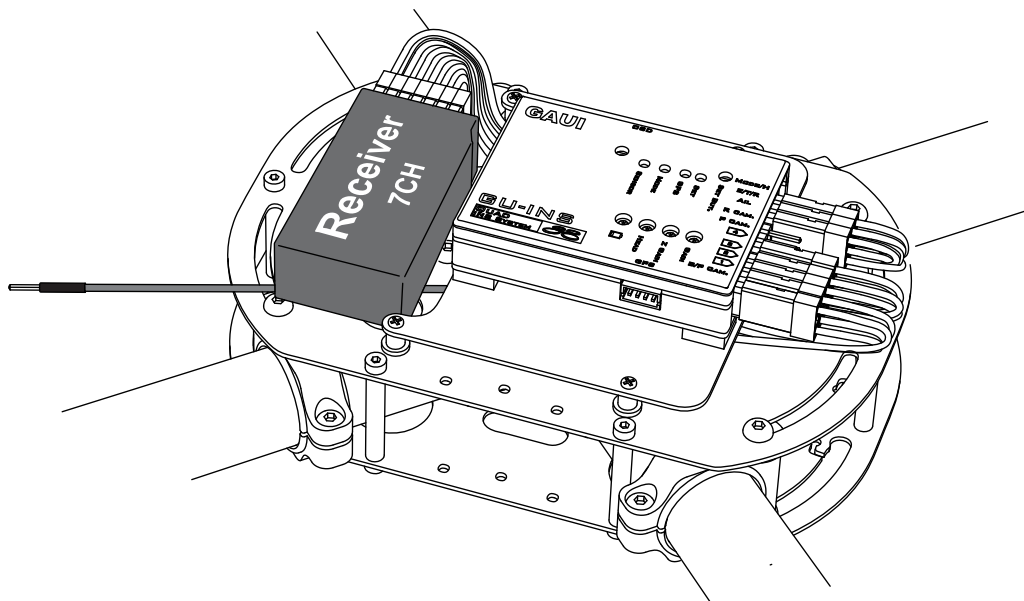
4. Insert the 2 and 6 channel connection cables to the GU-INS main controller.
將六通道及二通道連接線插入GU-INS本體



5. Insert ESC plugs (1~4) to the given sockets of GU-INS. (Notice the position and spinning direction of the motors.)
將四個動力組的ESC接至GU-INS本體的四個插座裡。(注意位置及馬達旋轉方向)

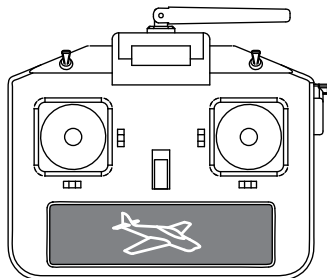


White/Red/Black → AILE
 Red → ELEV
 Orange → THRO
 Yellow → RUDD
 Green → FLAP(Mode)
 Blue → GEAR(Go Home)
 Black → AUX2(Camera Mount Pitch Axis)



6. Insert the plugs of receiver to GU-INS as illustrated.

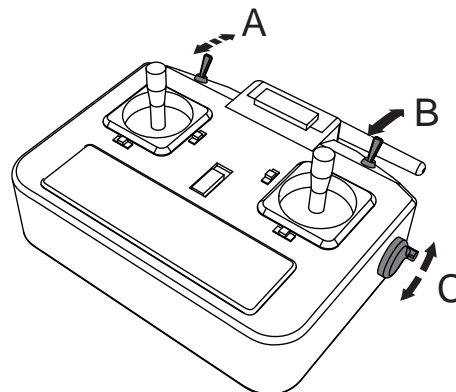
如上圖依照順序將連接線接至接收機上。



	Futaba	JR	Hitech
AILE	Normal	Reverse	Normal
ELEV	Normal	Reverse	Reverse
THRO	Reverse	Normal	Normal
RUDD	Normal	Reverse	Normal

7. Create a model as "Airplane" in transmitter, confirm the "REV" setting as illustrated.

將遙控器設為飛機模式，並確認各家遙控器的命令值正反向。

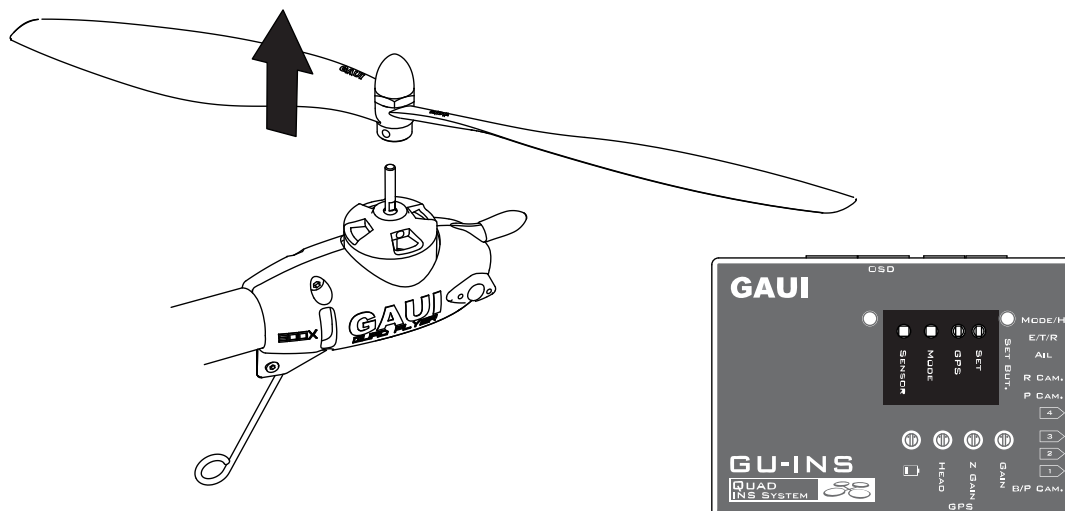


8. Assign "MODE" (green wire) to the 3-positions switch (A)

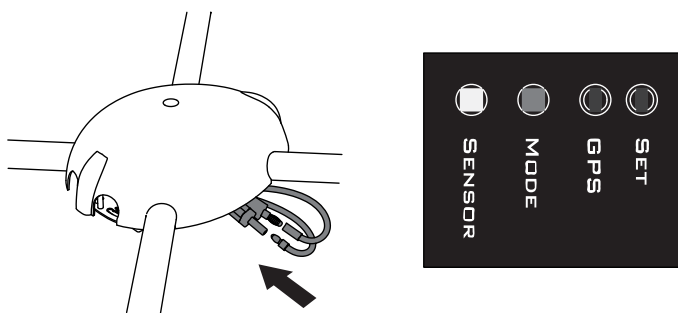
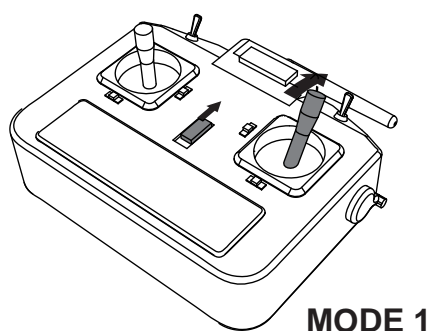
on the transmitter (as illustrated), "H" (blue wire) to the

2-positions switch (B) on the transmitter, and "P CAM" (black wire) to the side lever (C) of the transmitter.

將綠線(MODE)接至遙控器的三段開關(如A)，藍線(H)接至兩段開關(如B)，黑線(P CAM)接至旋扭開關(如C)。

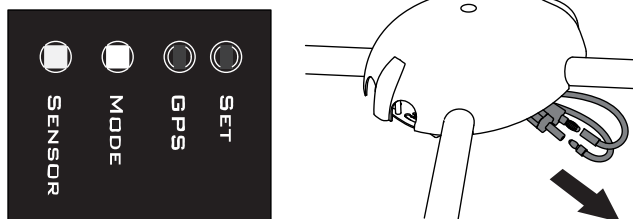
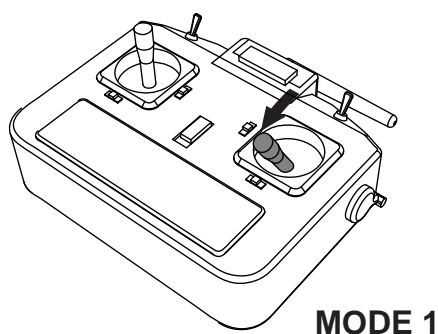


1. For your safety, before setup, please remove the propellers, and note the LED lights indications on the GU-INS.
為了安全起見，請先將螺旋槳取下，並注意GU-INS的燈號變化。



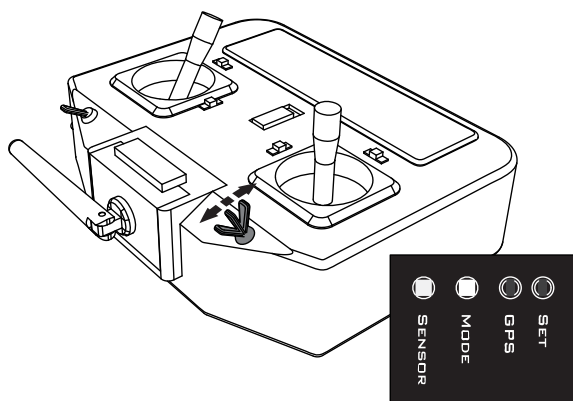
2. Turn on the transmitter, and move the throttle stick to its top position.
先將遙控器的電源打開，同時把油門桿撥到最大。

3. Connect the battery to the 500X, the motors will come up with corresponding tones, and the LED light of "MODE" lights "Red flashing".
將機體接上電源，此時馬達會有設定響聲，MODE燈號為紅燈閃爍。

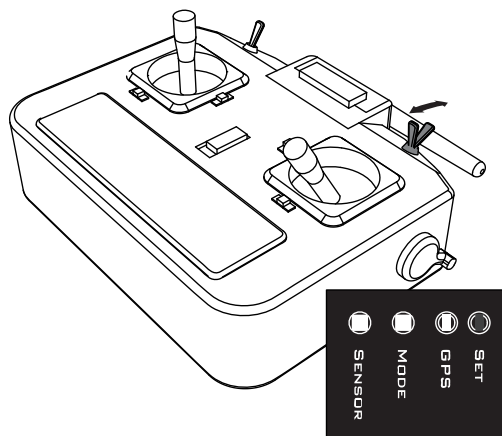


4. Then move the throttle stick to its lowest position.
接下來把油門桿放到最低。

5. The motors will come up with corresponding tones, LED light of "MODE" lights "Solid green", and the calibration of ESCs is completed.
此時馬達會有完成設定響聲，MODE燈號轉為綠燈，接下來將機體電源移除，完成ESC指令校正。



Manual mode 手動模式
Auto-balance mode 自動平衡模式
GPS positioning mode 定位模式



Off 關閉
"Home" function 啟動回航點

6. Then confirm the LED light of "MODE" and "GPS" in each fly mode; pay attention to the functionality of each switch position (as illustrated).

接下來確認模式切換開關，請注意開關位置所代表的飛行模式（燈號如左上圖）及回航點的開關位置（燈號如右上圖）

You can also connect 1~2 satellite receiver instead of standard receiver, 6 channel connection cable is unnecessary while using satellite receiver. While setting the transmitter, please assign the functions (Home, Mode, etc) to the 2 or 3 positions switch and levers, and confirm again how it works according to the status of the LED lights.

你也可以接一至兩組衛星天線來取代標準接收機，此時六通道連接線已不需使用。

遙控器的設定除了前四個為標準搖桿指令其它三組請設在開關或旋鈕，最後再以燈號確認指令是否正確。

Ex: channel assignment for JR DSX7 and DSX9:

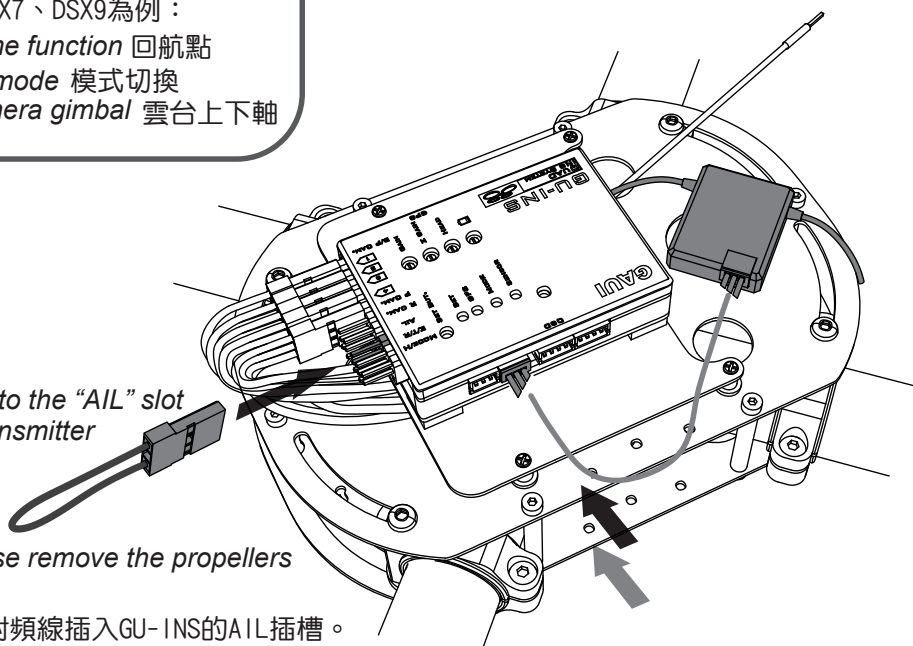
若以JR遙控器DSX7、DSX9為例：

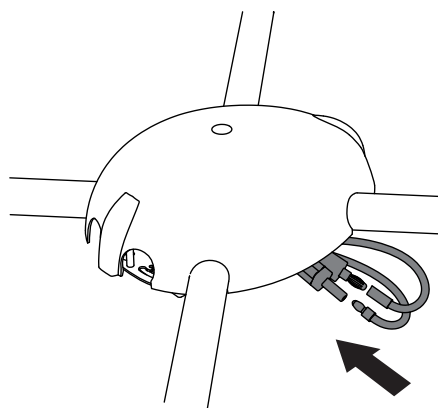
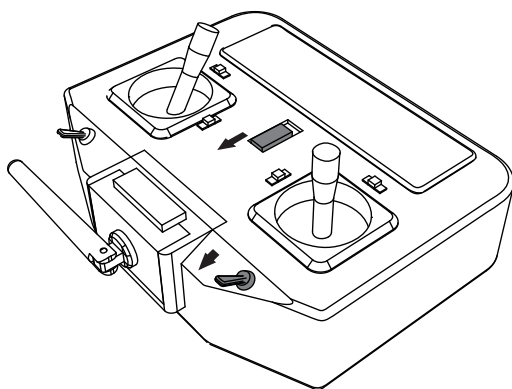
GEAR → Home function 回航點
FLAP → Fly mode 模式切換
AUX2 → Camera gimbal 雲台上下軸

Insert the "Bind plug" to the "AIL" slot before binding the transmitter and GU-INS

(For your safety, please remove the propellers before binding.)

*執行對頻前請先將對頻線插入GU-INS的AIL插槽。
(為了安全，請先將螺旋槳移除)



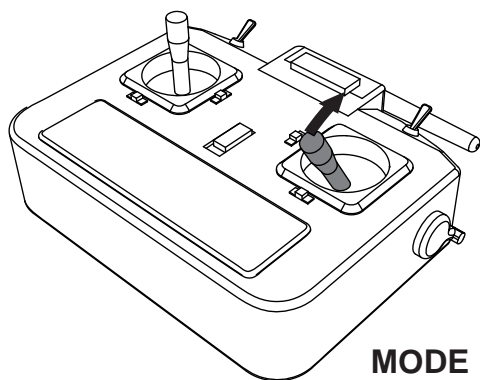


1. Install the propellers, turn on the transmitter, and switch to "Manual" mode.

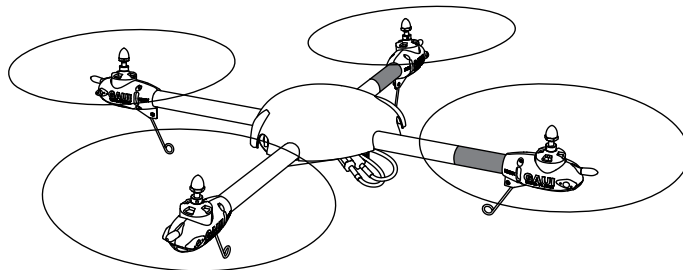
將機體裝上螺旋槳後開啟遙控器電源，並且切至手動模式。

2. Connect the battery to the 500X, after the corresponding tones of ESCs, you are ready for test flight.

將電源接上，等ESC聲響完成後即可起飛。

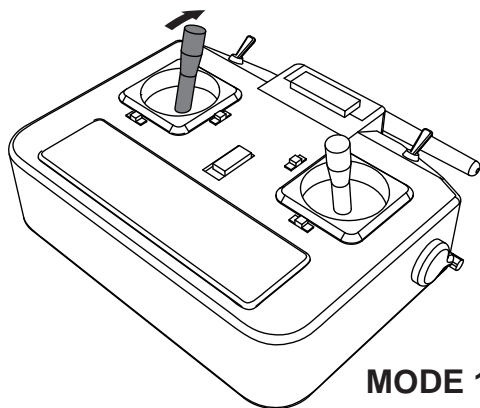


MODE 1

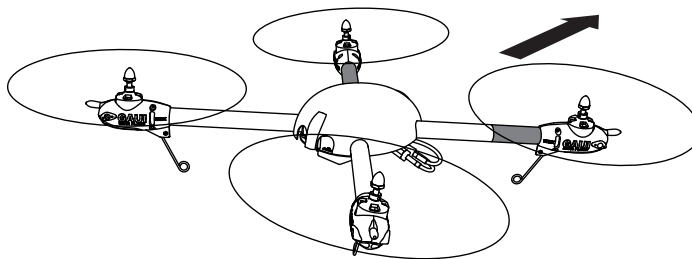


3. Move the throttle stick gradually until the 500X slightly lift off.

慢慢加大油門，讓機體稍為離地即可。

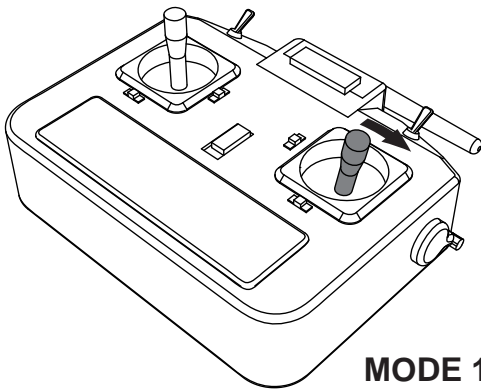


MODE 1

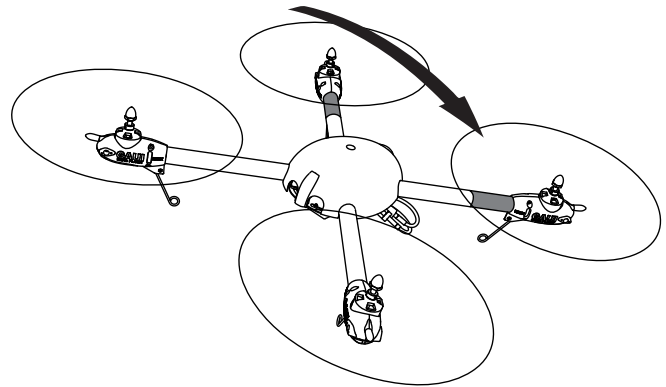


4. Move the "ELE" stick upward to check and make sure the 500X tilts forward as illustrated.

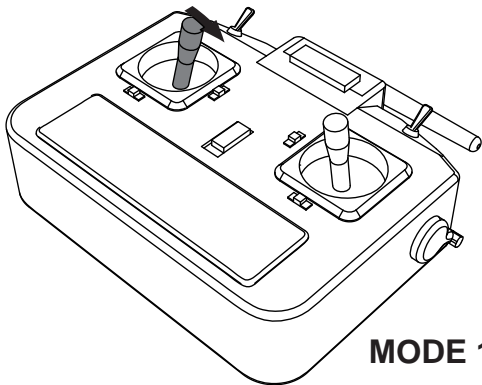
確認前進指令是否正確。



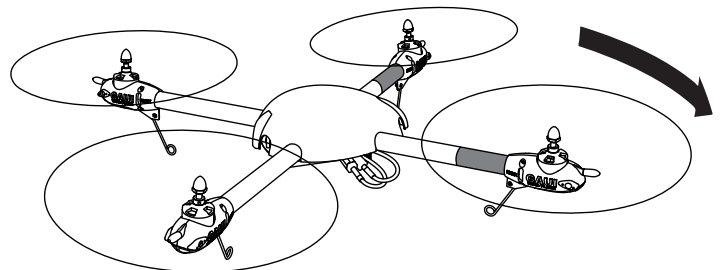
MODE 1



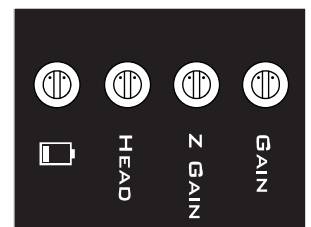
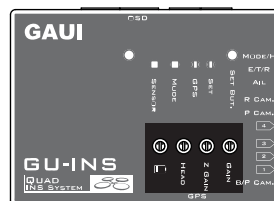
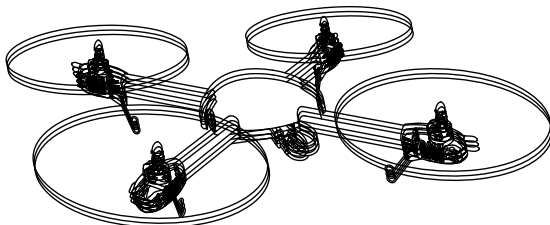
5. Check and make sure the "AIL" movement follow your transmitter command.
確認滾轉指令是否正確。



MODE 1

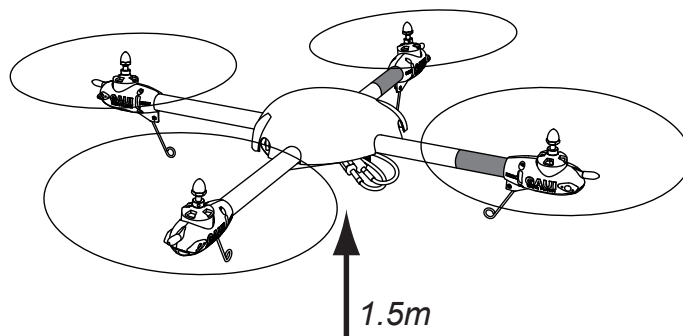
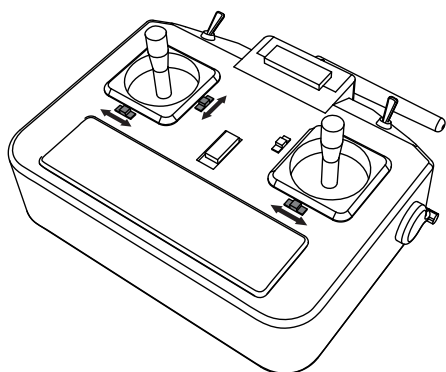


6. Check and make sure the "RUD" movement follow your transmitter command.
確認轉向指令是否正確。

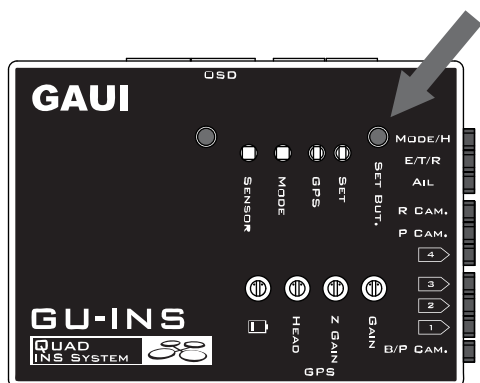


The recommended initial setting of GAIN and Z GAIN value is about central position of the knob. (as illustrated)
對500X來說GAIN與Z GAUN大約在中間值(如圖)

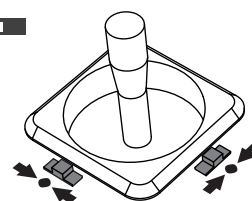
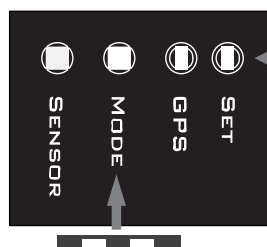
7. After checking all movements of the 500X are correct, hover the 500X about 1m above the ground, if it shakes or wags while hovering, decrease the "GAIN" value until it is stable.
指令確認無誤後再將機體離地約1m測試GAIN值是否正確，若有抖動現象需將GAIN值調小。



8. Hover about 1.5m above the ground, calibrate the attitude of 500X with trimmers of the transmitter.
將機體停懸約1.5m高，以微調校正中立點。

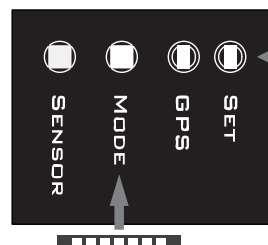
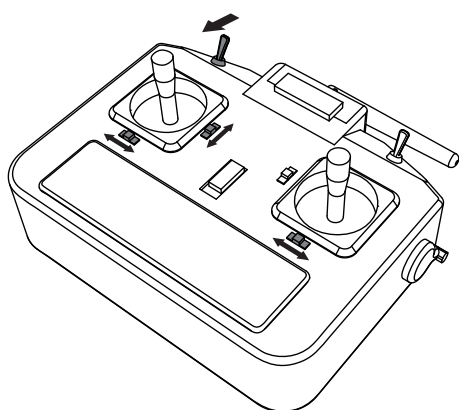


9. Press "SET" button when calibration is completed.
完成校正後按下SET鍵。



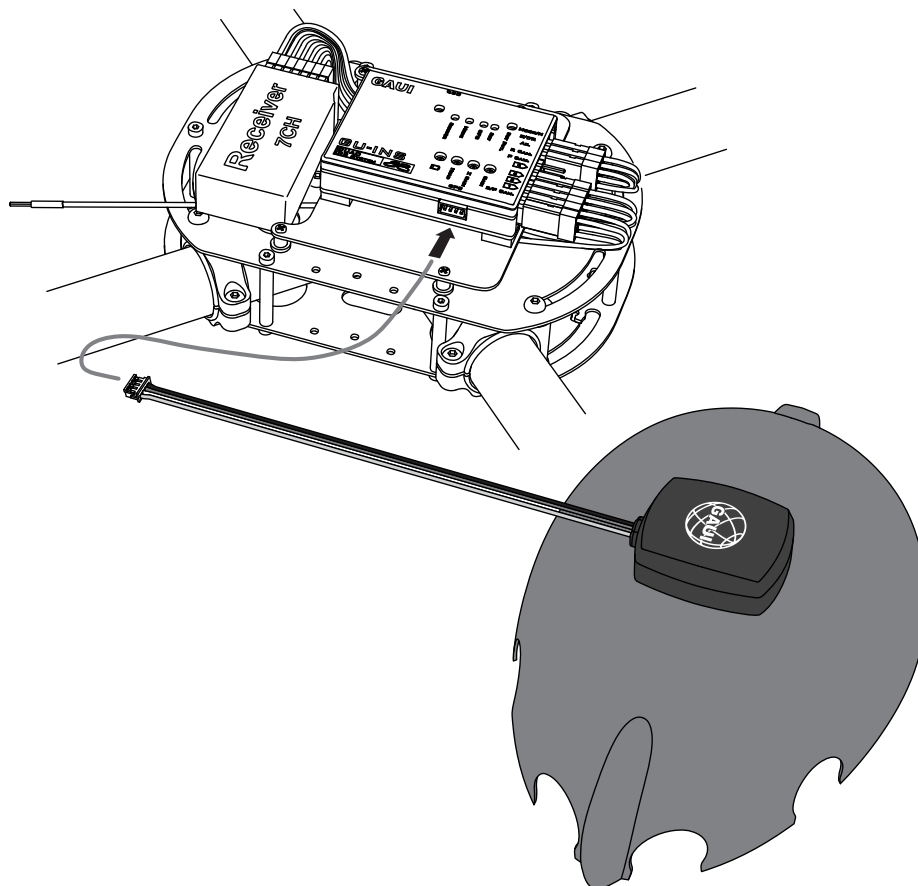
10. "SET" LED light flashes three times when calibration under manual mode is completed.
此時SET燈號會閃三下完成手動模式下的校正。

11. Set all trims to neutral after calibration.
完成後將遙控器微調回歸中立。



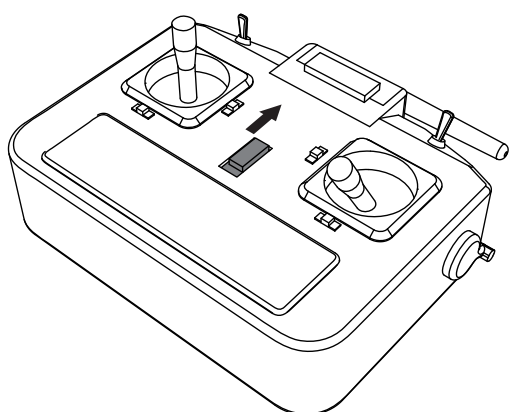
12. Switch to "Auto-balance" mode, and calibrate the attitude of 500X with trimmers of the transmitter.
接下來將遙控器切換至自動平衡模式，同時調整機體停懸時的微調。

13. Press "SET" button when calibration is completed. Set all trims to neutral after calibration. (GPS positioning mode does not need to be calibrated.)
完成後按下SET鍵，等燈號閃爍確認後將微調回歸中立，此時便完成自動平衡模式下的機體校正。（定位模式不需校正）

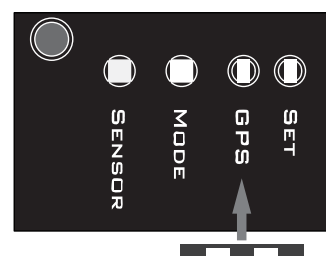
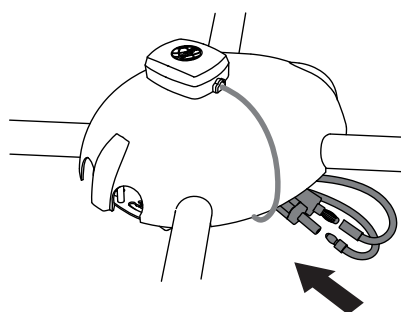


1. Install the GPS system on top of the canopy with double sided adhesive tape, insert the plug to the GPS socket on the GU-INS.
(The GPS system is not aeolotropic, affix with GAUI mark facing up will do.)

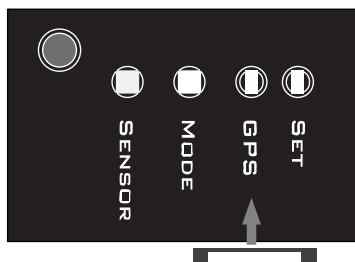
用雙面膠將GPS系統貼於上蓋，並將插頭接至GU-INS的GPS插槽上。(GPS無方向性，只需將商標朝上即可。)



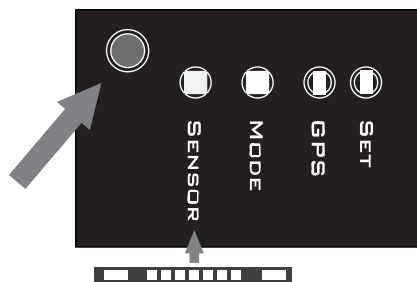
2. Turn on the transmitter.
開啟遙控器電源。



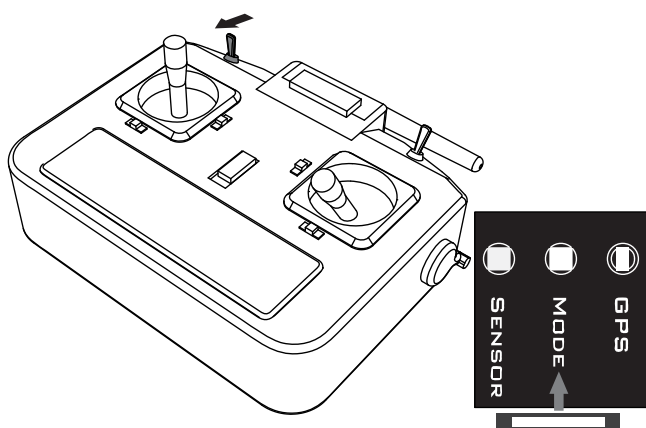
3. Connect the battery of the 500X, "GPS" LED will start to flash, and the GU-INS will start to search for GPS signal.
將機體送電，此時GPS燈號開始閃爍進行搜尋。



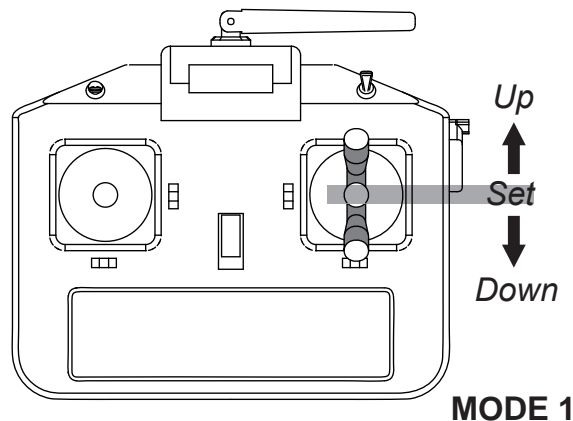
4. When the GU-INS has found more than five satellites, the LED light of "GPS" will turn solid green. We recommend to wait one more minute to receive more satellite signals.
GPS燈號恆亮時，代表搜尋到五顆衛星以上，我們建議多等待一分鐘以上。



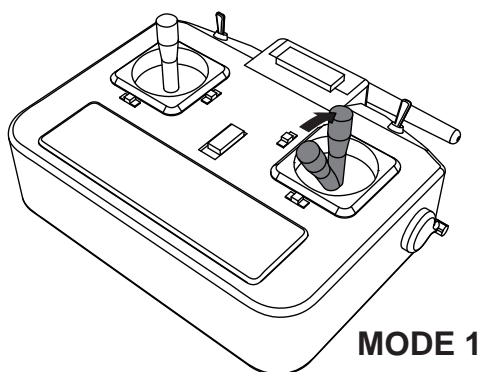
5. You can verify how many satellites are received by pressing the button and count the number of LED flashes (illustrated, 7 flashes=7 satellites received).
你可以按左上方按鍵，此時SENSOR會顯示衛星數。（如上圖顯示閃爍七次代表七顆衛星）



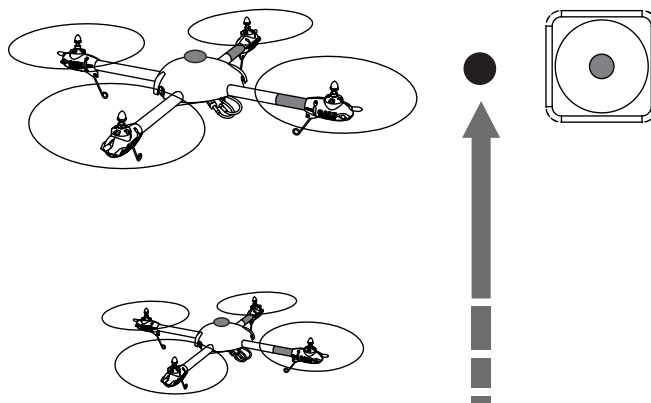
6. Switch to "GPS positioning" mode, the LED light will turn solid green (as illustrated).
將遙控器切至定位模式，此時GU-INS的燈號為恆亮。



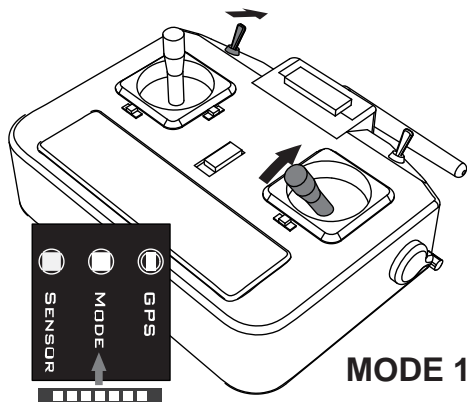
7. The definition of throttle stick under "GPS positioning" mode is as illustrated above.
定位模式的油門桿定義如上圖。



8. To lift up, move the throttle stick upward slowly over its central position.
將油門桿慢慢推到中間值以上。

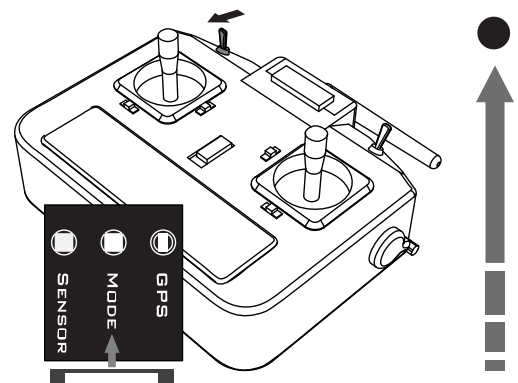


9. When the 500X has climbed to the altitude you want, move the throttle stick back to central position.
等機體爬升至你要的高度後再將油門桿推到中間。

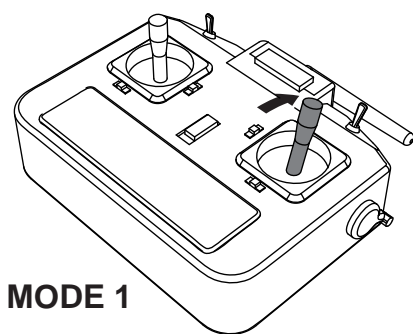


MODE 1

10. You can also take off with "Auto-balance" mode (turn switch as indicated above), the MODE LED light will turn into fast green flash.
你也可以用自動平衡模式起飛，此時GU-INS的燈號為快閃。

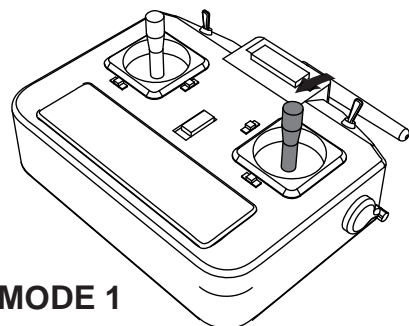


11. Climb to the altitude you want, and switch back to "GPS positioning" mode.
爬升至你要的高度再切回定位模式。



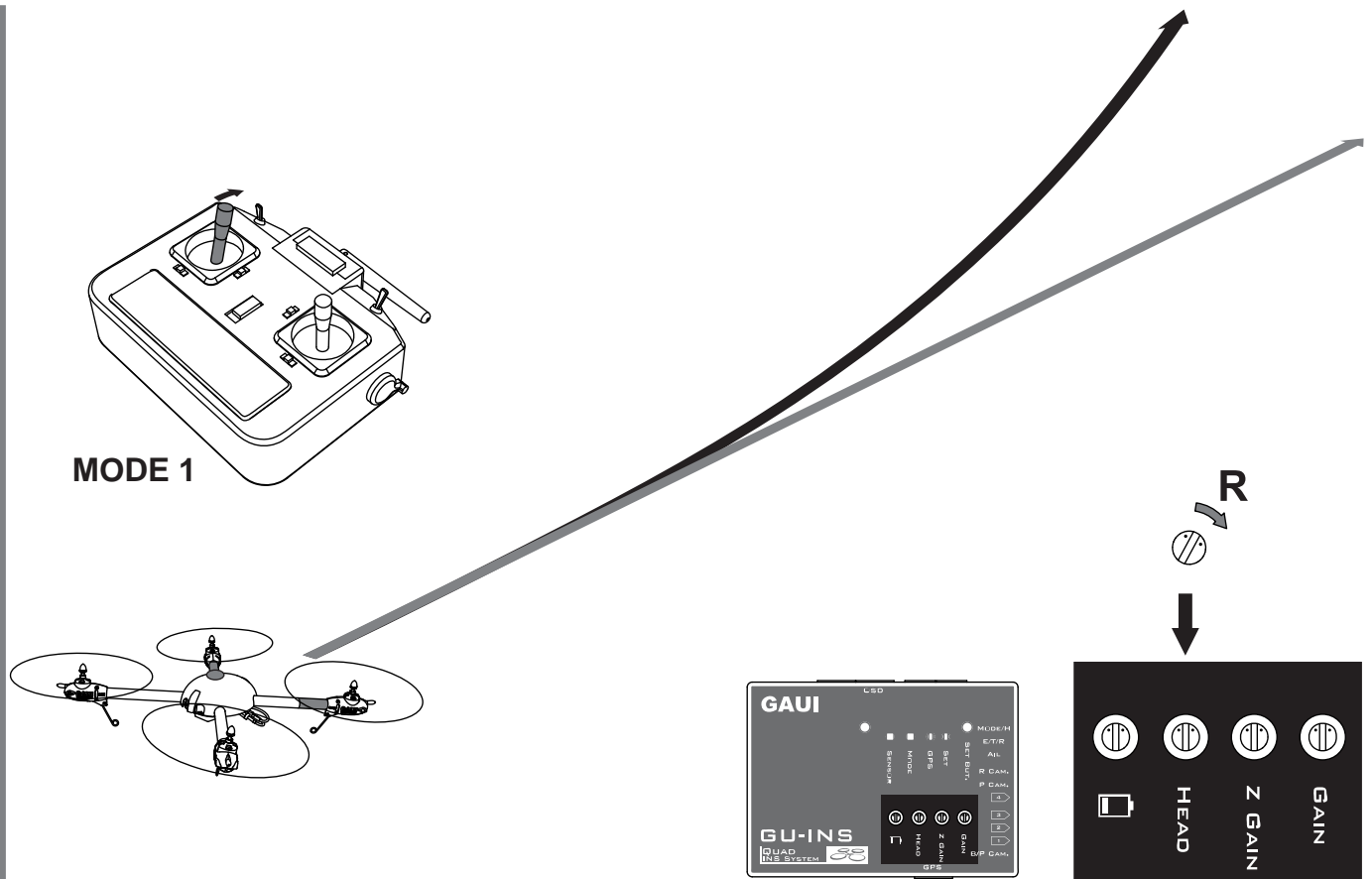
MODE 1

12. Move the throttle stick upward, and the 500X will start to climb.
將遙控器油門桿向上，機體開始往上爬升。



MODE 1

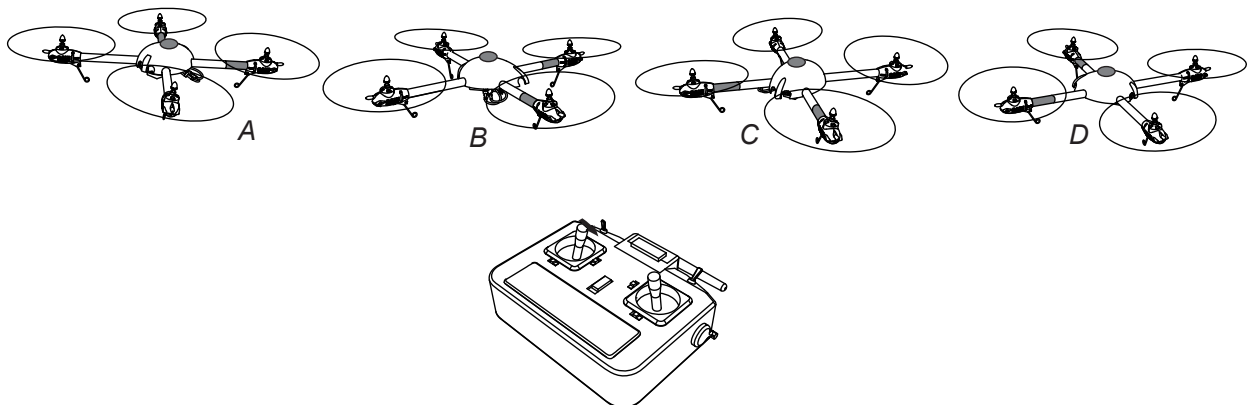
13. Move the throttle stick back to neutral position, the 500X will maintain its altitude.
將遙控器油門桿回中間，機體執行定高度飛行。



14. If the 500X heads to the left while you move the “ELE” stick forward, please adjust the “HEAD” knob to the right, this is the calibration of magnetic north and due north of different area.
指令向前，若機體如上圖偏左，請在HEAD旋鈕調右，這是在校正各地區磁北與GPS正北的關係。

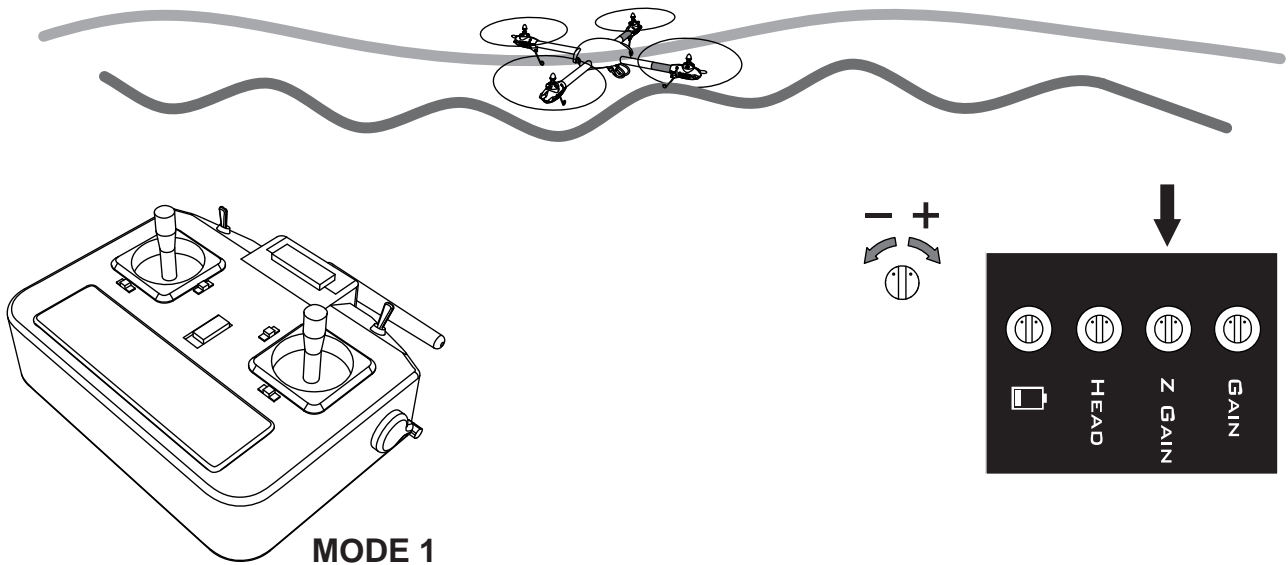
NOTE: You only need to calibrate the magnetic north and due north once in the same area. But if you install new devices on the 500X, you need to calibrate it again, because the new devices may influence the magnetic field of the 500X.

注意：同一地區只需校正一次即可，但如果有加裝其它機構時請再校正一次，因為它有可能會影響磁場變化。



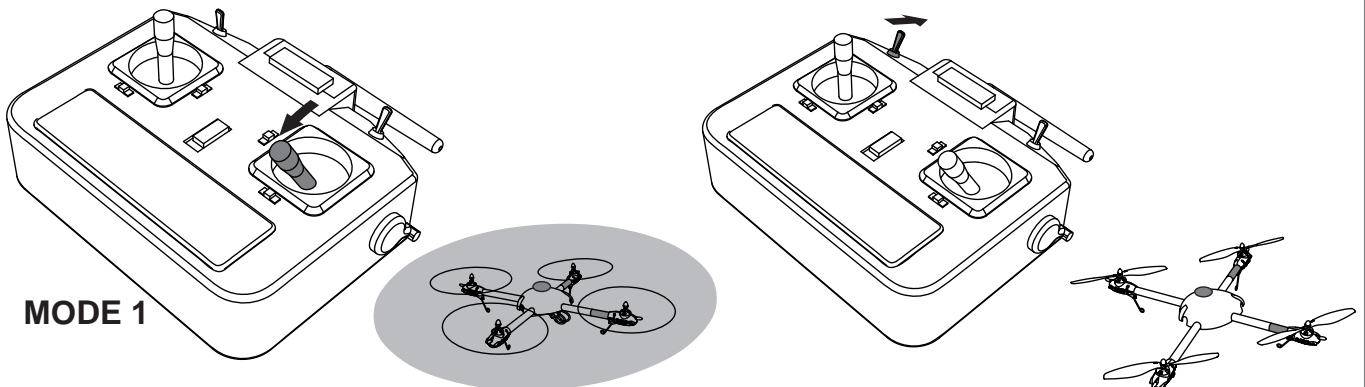
15. Check the GPS positioning function from four directions, if it circles in one direction, it means the magnetometer in GU-INS is interfered. Please check if there is any magnetic material around or electric current goes through. if so, you need to quarantine the interference source or entwine the power cable as illustrated in P.3.

檢測四個方向的定位效果，若在某一向有繞圈現象則代表磁力計被干擾，請檢查GU-INS附近是否有導磁物體或有電流通過，若有就必須隔離它或纏繞電線(如P3)。



16. Z gain is used for adjusting the gain value of altitude, it may be affected by wind or air pressure, thus we recommend to adjust it to central position (as illustrated).

Z GAIN是在調整高度的增益值，由於可能受風及氣壓影響而有所變化，我們建議採用中間值(如上圖)。

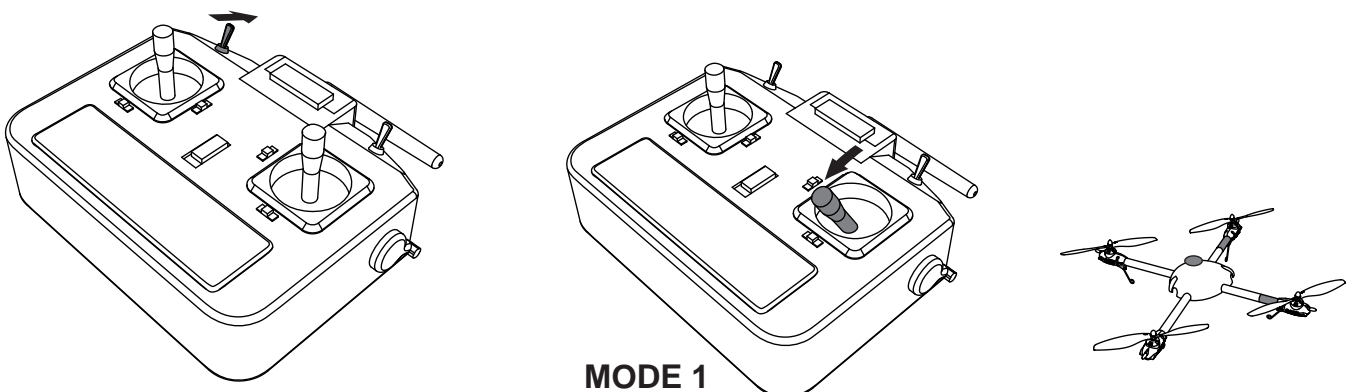


17. The 500X can descend slowly to the ground under GPS positioning mode.

在定位模式下機體可以緩降至地面。

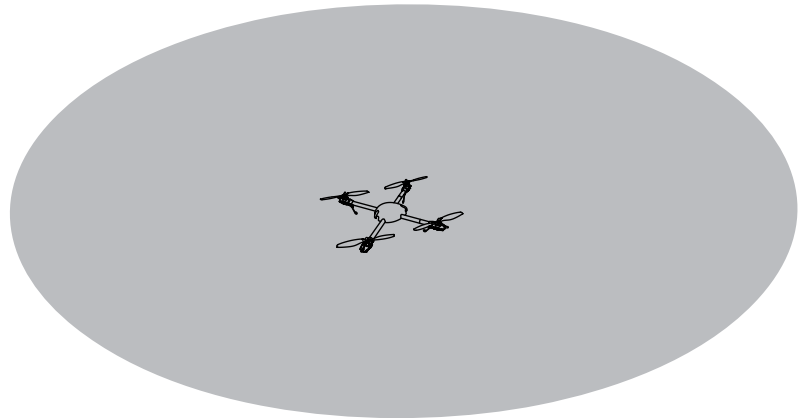
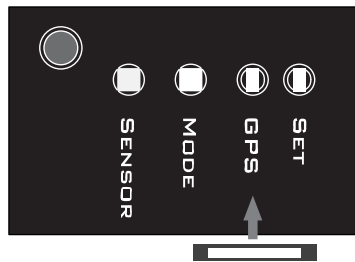
18. The propellers would not stop until switched back to "Auto-balance" or "Manual" mode.

此時必須切換至自動平衡或手動模式動力才會停止。

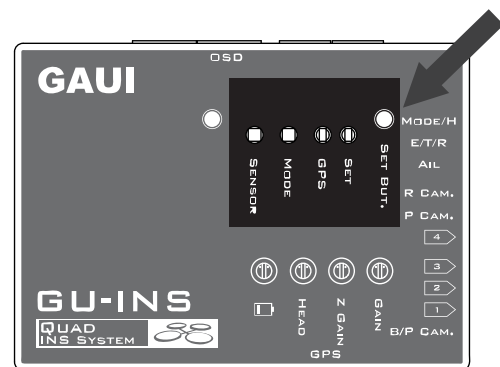
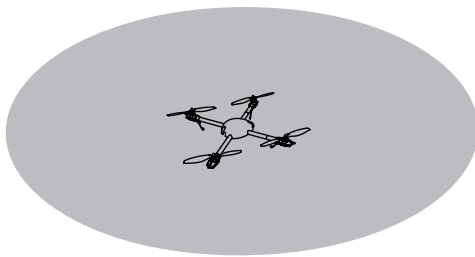


19. You can also land by switching to "Auto-balance" or "Manual" mode in the air.

你也可以在空中切換成自動平衡或手動模式來執行降落。

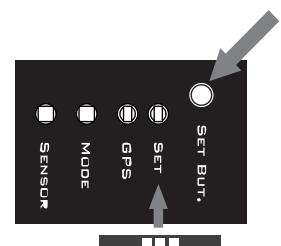
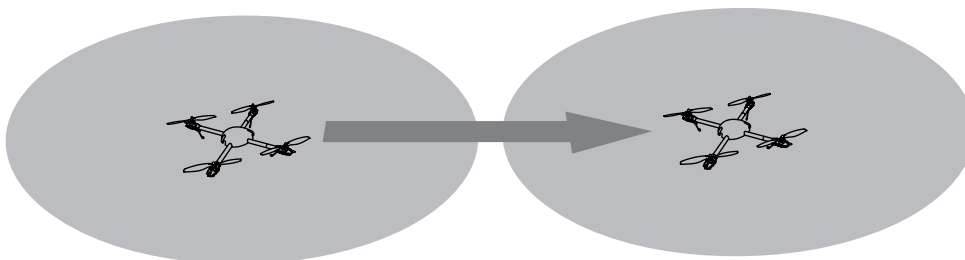


1. While just starting the GPS system, the "Home" position range may be within a radius of 5m.
剛開始啟動GPS時，建立原點的訊號位置可能在機體半徑5m內的任何一點。

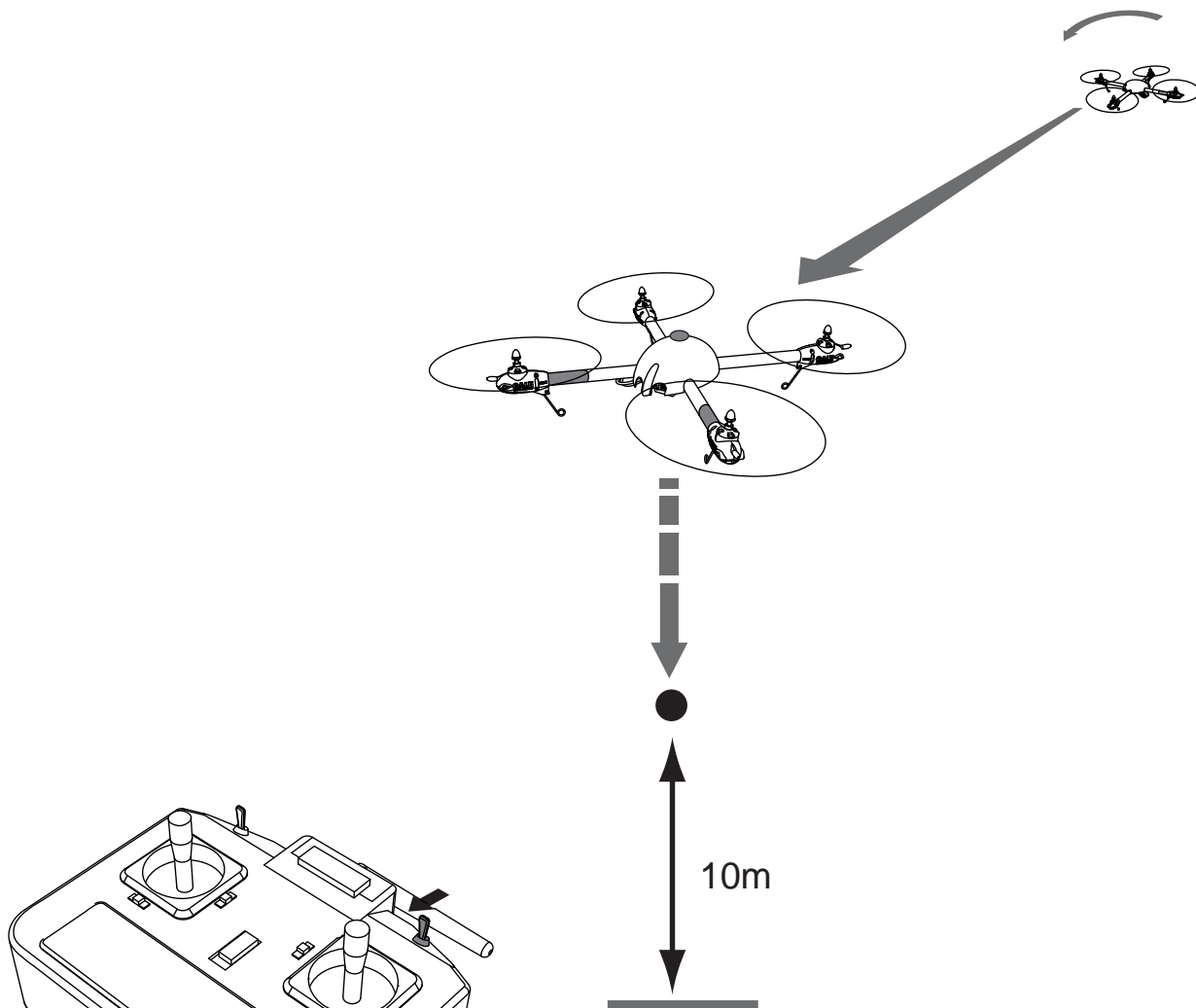


2. By increasing the numbers of satellites received and wait for convergence of signal, the precision may increase to be within a radius of 2m range.
經過衛星數的增加及訊號的收斂，精確度可提高至2m內。

3. Then press "SET" button under GPS positioning mode will make the "Home" position setting to be more accurate. ("SET" LED light flashes.)
此時在定位模式下按SET鍵，可重新輸入更精確的原點。(輸入時SET燈會閃爍)

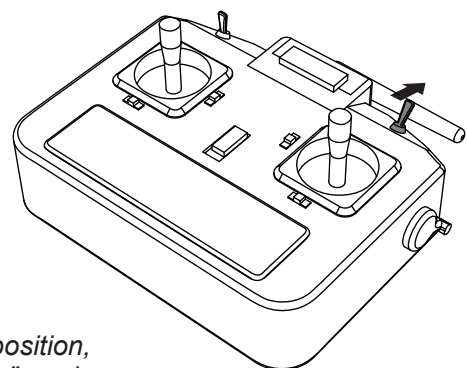


4. When you move the 500X away to a new location, and would like to reset "Home" position, just press "SET" button under GPS positioning mode to reset new "Home" position.
所以當你移動機體要重設原點時，也是一樣在定位模式下按SET鍵即可。

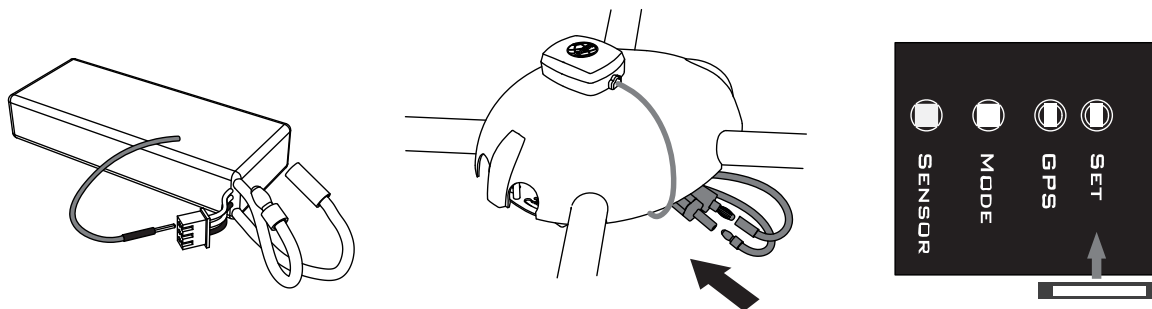


5. When switching to "Home" function, the 500X will turn its head toward "Home" location and start returning to "Home" position. If its altitude is more than 10m, it will descend to 10m height after arriving at "Home" position. If its altitude is below 10m, it will maintain altitude and hover. You can still give orders like yaw or descend while the 500X is returning to "Home" position.

啟動回航點開關，此時機頭會轉向航點並朝航點前進（速度會隨距離縮短而變慢），若高度超過10m，它會到達航點後下降至10m；若高度在10m以下，則保持原高度停懸。回航期間你依然可以下達操作指令，如轉向、下降等。



6. If you would like to operate after returning to "Home" position, remember to switch back to "Manual" or "Auto-balance" mode. 回航點後若要繼續操作，請記得要解除回航點功能。



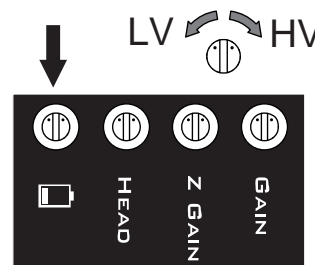
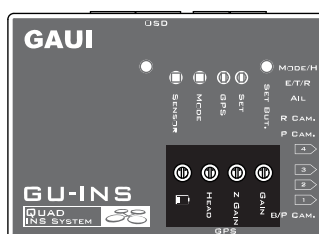
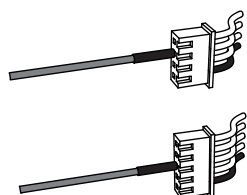
1. When you first insert the plug to the second cell (positive pole) of the balance plug of battery, and then connect the battery to the 500X, the low voltage protection function will be activated. ("SET" LED light turns solid.)

當你先將探針插入電池的分壓頭(如圖在第二Cell的正極)，再插入主電源便執行低電壓保護功能。(SET燈恆亮)



2. If you connect the battery to the 500X first, THEN insert the plug, the low voltage protection function will not be activated, but the voltage will be shown on the OSD.

如果你先插入主電源再插入探針，此時沒有啟動低電壓保護，但OSD會顯示電池容量。

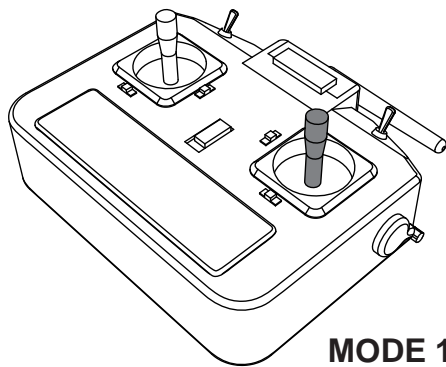
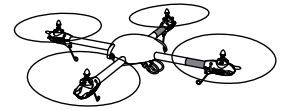
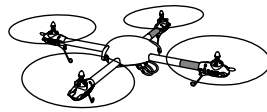


3. No matter which kinds of batteries you use (2~4S), insert the plug to the second cell (positive pole) of the balance plug.

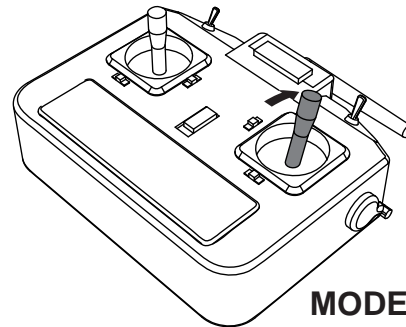
不管你是採用二、三、四Cell電池，探針都是插在第二Cell的正極上。

4. Due to the variation in performance among different batteries, you will be able to adjust the activated voltage for low voltage protection function.

由於每種電池的表現不同，你可以微調啟動保護的電壓值。



MODE 1



MODE 1

5. When the low voltage protection function is activated, the throttle signal will decrease 20%, and the 500X will descend.

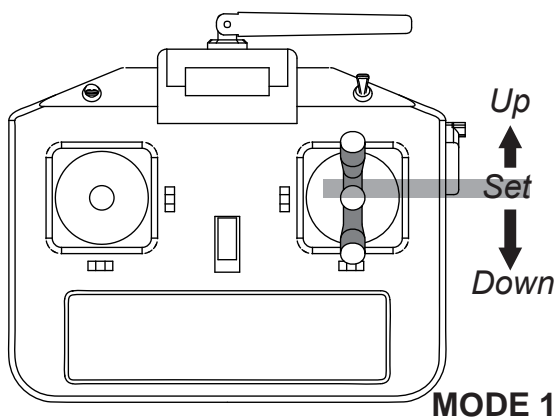
當啟動低電壓保護，油門的訊號會降低20%，此時機體會下降。

6. You need to move throttle stick upward more to maintain altitude and hover at this time.

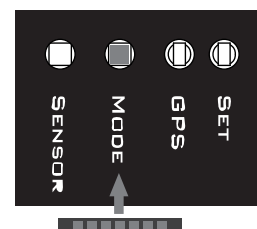
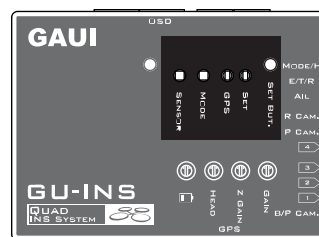
(When noticing this means you need to land the 500X as soon as possible, the battery is almost exhausted.)

此時你需要更大的油門量來維持停懸。

(得到此訊息請儘快降落)



MODE 1

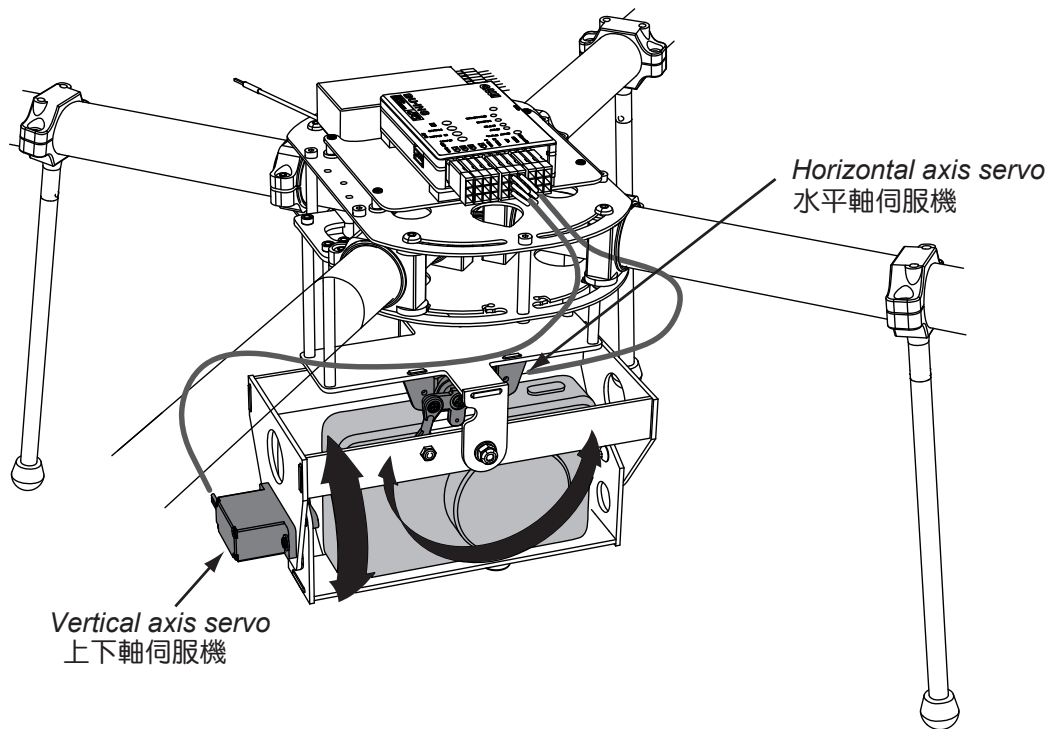


7. In GPS positioning mode, the "Set" point of throttle will move 20% upward. (If you hold the throttle stick at the central position, the 500X will still descend.)

若在定位模式，油門的定高點會往上移20%。
(若油門不動，機體呈現下降狀態)

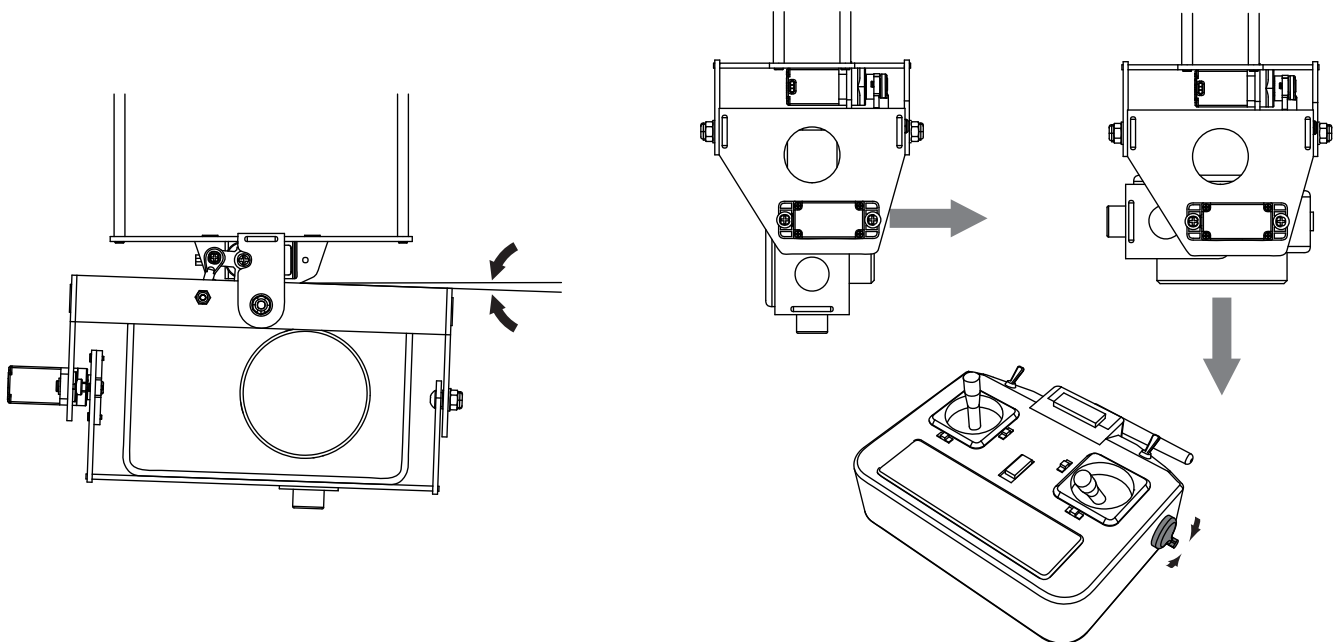
8. When the low voltage protection function is activated, "MODE" LED light will flash red.

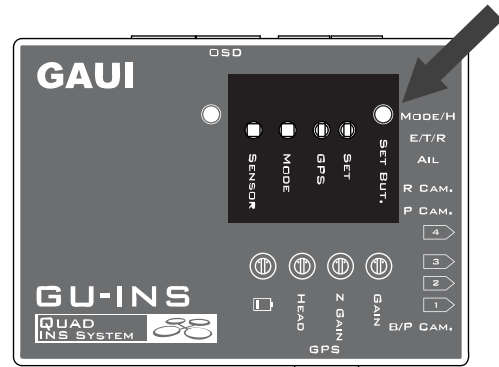
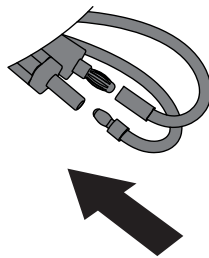
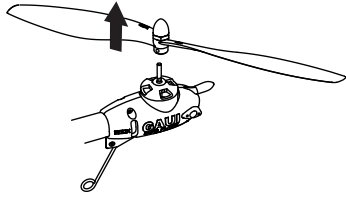
啟動低電壓保護時，MODE會閃爍紅燈。



1. Insert the wire of vertical axis servo to "P-CAM" socket, wire of horizontal axis servo to "R-CAM" socket, and place the 500X on a flat platform for the following calibration and setting procedures.

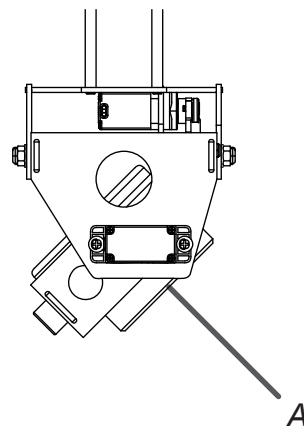
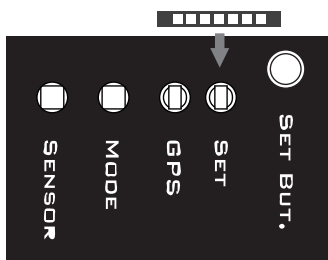
將雲台的上下軸伺服機接到GU-INS的P CAM.，水平軸伺服機接到R CAM.，並將機體置於平台上校正、設定。





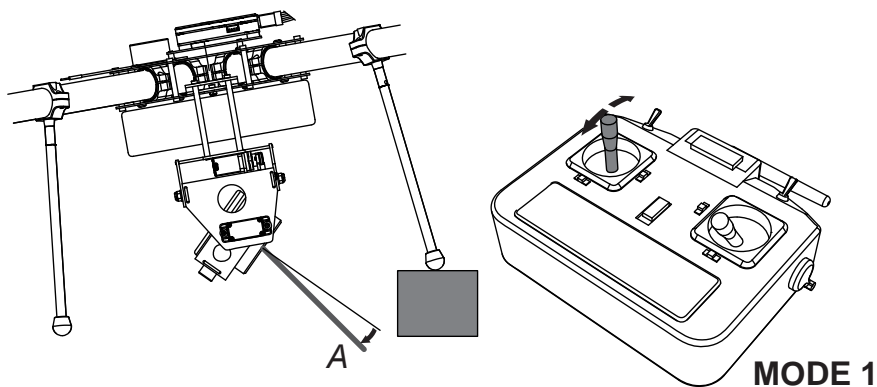
4. For your safety, please remove the propellers before setup.
設定前先將螺旋槳取下。

5. Turn on the transmitter first, and then connect the battery of GU-INS the 500X, press "SET" button before the initialization of is completed.
遙控器打開後將機體接上電源，在GU-INS尚未開機前按下SET鍵。

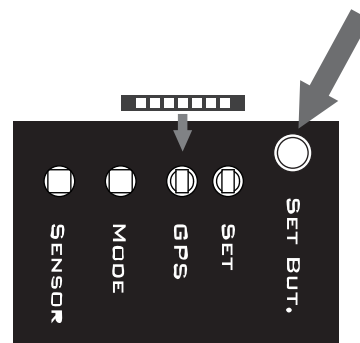


6. The system will start the calibration procedures.
("SET" LED light flashes.)
此時進入雲台校正程序。
(SET燈閃爍)

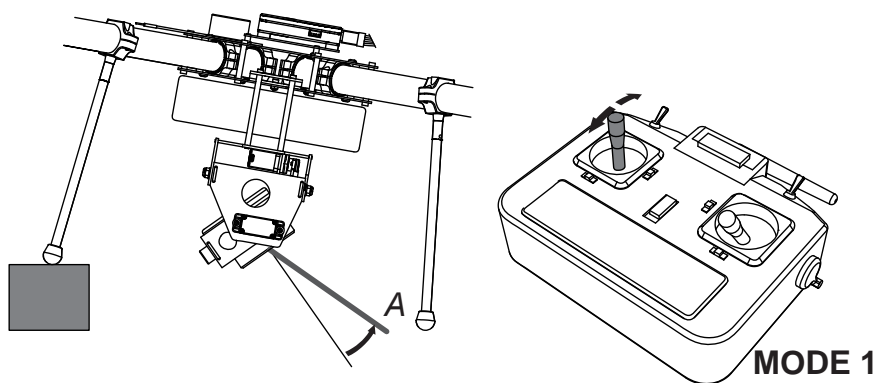
7. The angle of the camera gimbal presents would be baseline A. (The servo will return to its central position.)
此時雲台上下軸所呈現的角度為基準線A。
(伺服機回歸中立點)



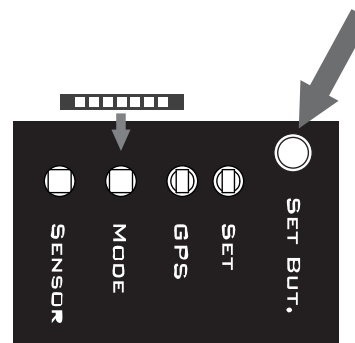
8. Raise one side of the pole (vertical axis of camera gimbal), calibrate the camera gimbal with ELE stick, adjust the camera gimbal to be parallel to baseline A.
先墊高(後)前腳，以遙控器升降舵調整雲台到與基準線A平行。



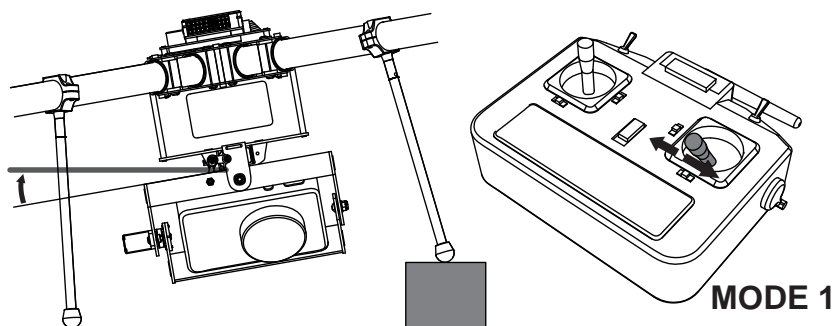
9. Press SET button to confirm, then the second GPS LED light flashes.
完成後按下SET鍵，此時進入第二個燈閃爍。



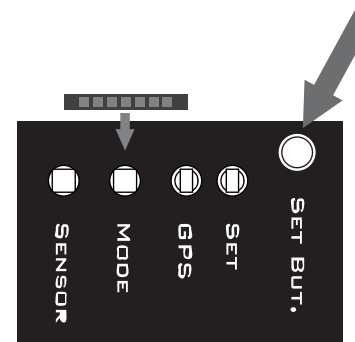
10. Raise the other side of the pole (vertical axis of camera gimbal), adjust the camera gimbal with ELE stick to be parallel to baseline A as previous step.
接下來墊高後(前)腳，一樣以遙控器升降舵調整雲台到與基準線A平行。



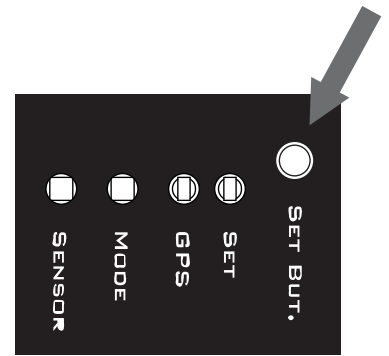
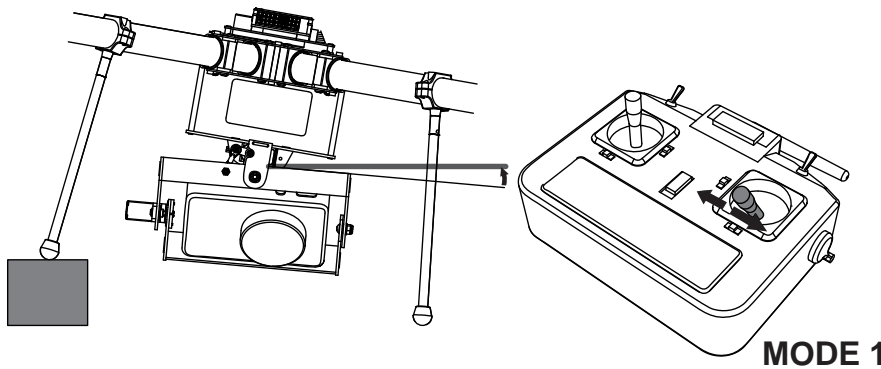
11. Press SET button to confirm, then the third LED light (MODE) flashes.
完成後按下SET鍵，此時進入第三個燈閃爍。



12. Raise one side of the pole (horizontal axis of camera gimbal), adjust the camera gimbal to level with AIL stick.
接下來墊高左(右)腳，以遙控器副翼調整雲台到水平。

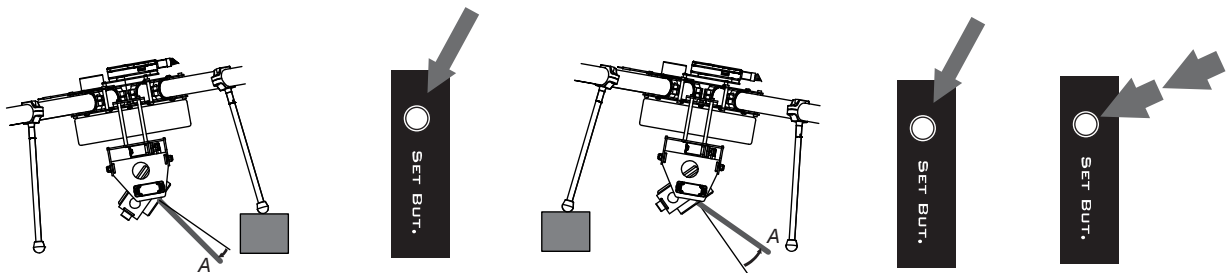


13. Press SET button to confirm, then the "MODE" LED light will turn red and flash.
完成後按下SET鍵，此時變成MODE閃爍紅燈。

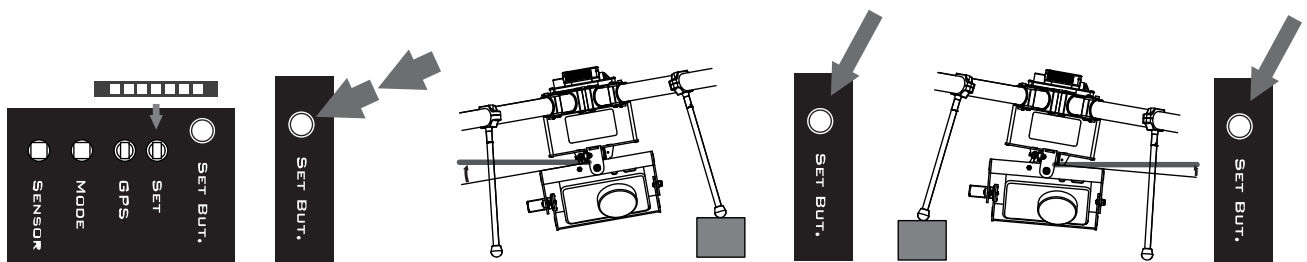


14. Raise the other side of the pole (horizontal axis of camera gimbal), adjust the camera gimbal to level with AIL stick as previous step.
接下來墊高右(左)腳，一樣以遙控器副翼調整雲台到水平。

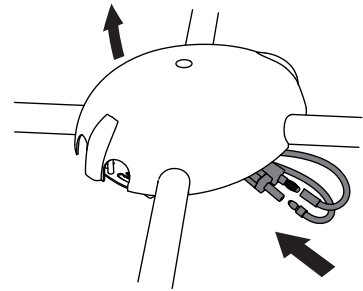
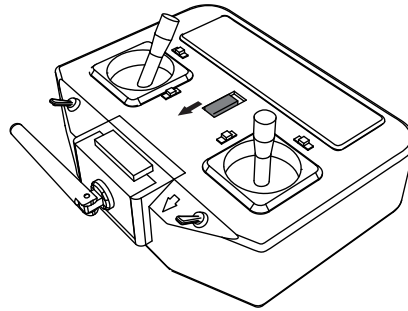
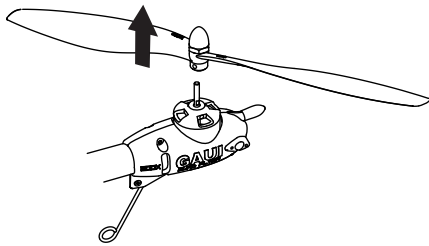
15. Press SET button to confirm, then the SET, GPS, MODE, SENSOR LED lights will all flash then turn off to indicate the calibration of camera gimbal is completed.
完成後按下SET鍵，此時四顆燈同時閃爍後熄掉，完成設定。



You can also only adjust the vertical axis of the camera gimbal, press SET button twice to ignore the calibration procedures of horizontal axis servo.
你也可以只校正上下軸，水平軸則按兩次SET鍵略過。

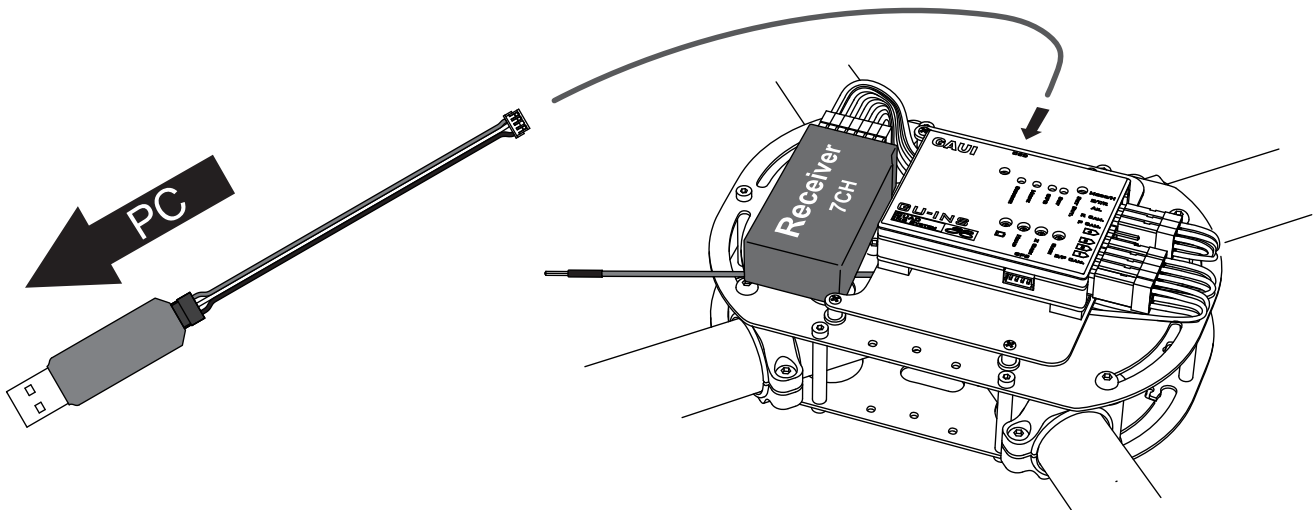


Or you can ignore the calibration procedures of vertical axis servo by pressing SET button twice, and adjust only the horizontal axis servo.
你也可以只校正水平軸，方法是先按兩次SET鍵略過上下軸後再校正水平軸。



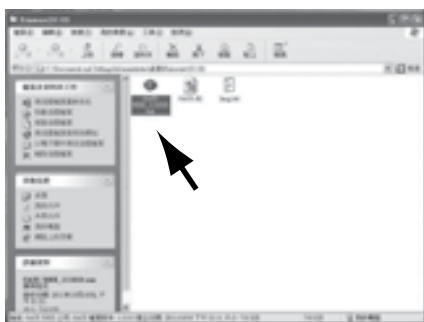
1. For your safety, please remove the propellers before software update.
為了安全，請先將螺旋槳移除。

2. Turn on the transmitter first, then connect the battery of the 500X (remove the canopy).
打開發射機，接下來將機體接上電源 (移除上蓋)。



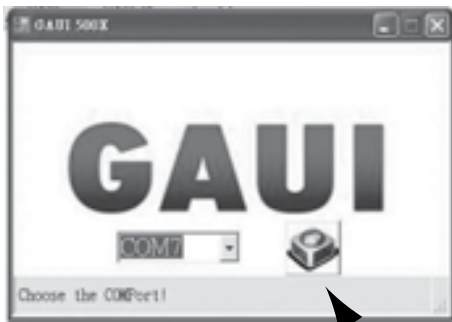
3. Connect the USB cable to the PC, it will download the driver automatically.
將USB插入電腦，它會自動上網抓取驅動程式。

4. Insert the other end of USB cable to the OSD socket of GU-INS.
USB的另一個接頭插入GU-INS的OSD插槽裏。

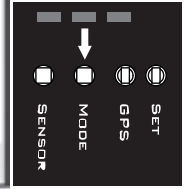


5. Download the firmware from the GAUI official website of GAUI, and double click the .exe file to execute. Follow the steps to finish installation.
在GAUI網站下載新程式資料夾，並點選.exe檔。

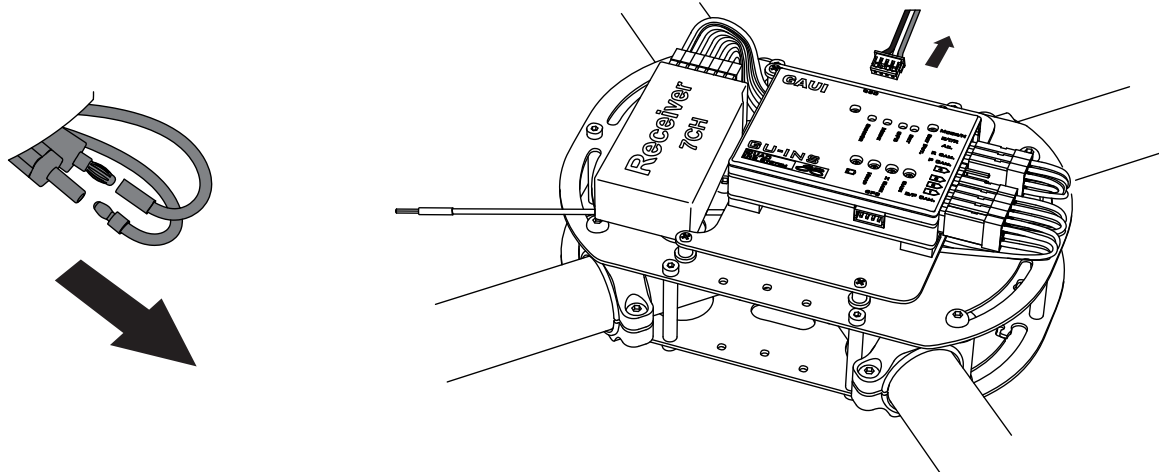
6. Select the appropriate COM (the system will search it automatically).
接下來進入更新畫面，先點選COM的位置 (它會自動搜尋)。



7. Then click "Execute".
接下來點選執行鍵。

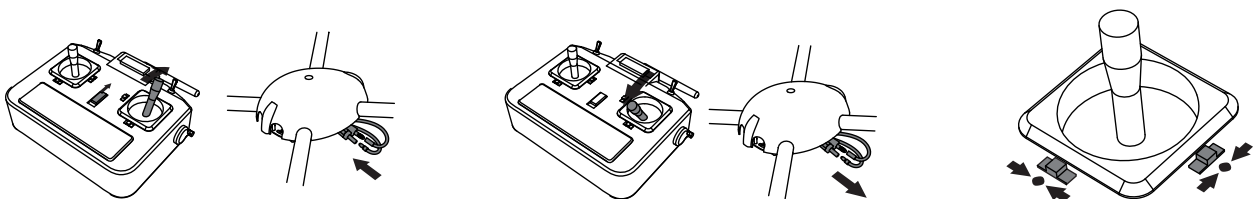


8. The system will start to execute the firmware updating procedure (the ESCs will come with sounds, "MODE" LED light turn red and flash). 此時開始執行程式更新動作(ESC會發出聲響，MODE會閃紅燈)。

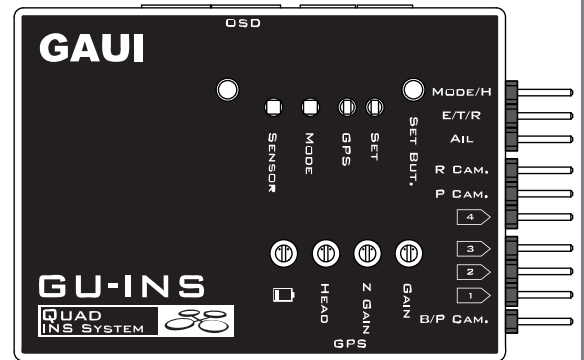
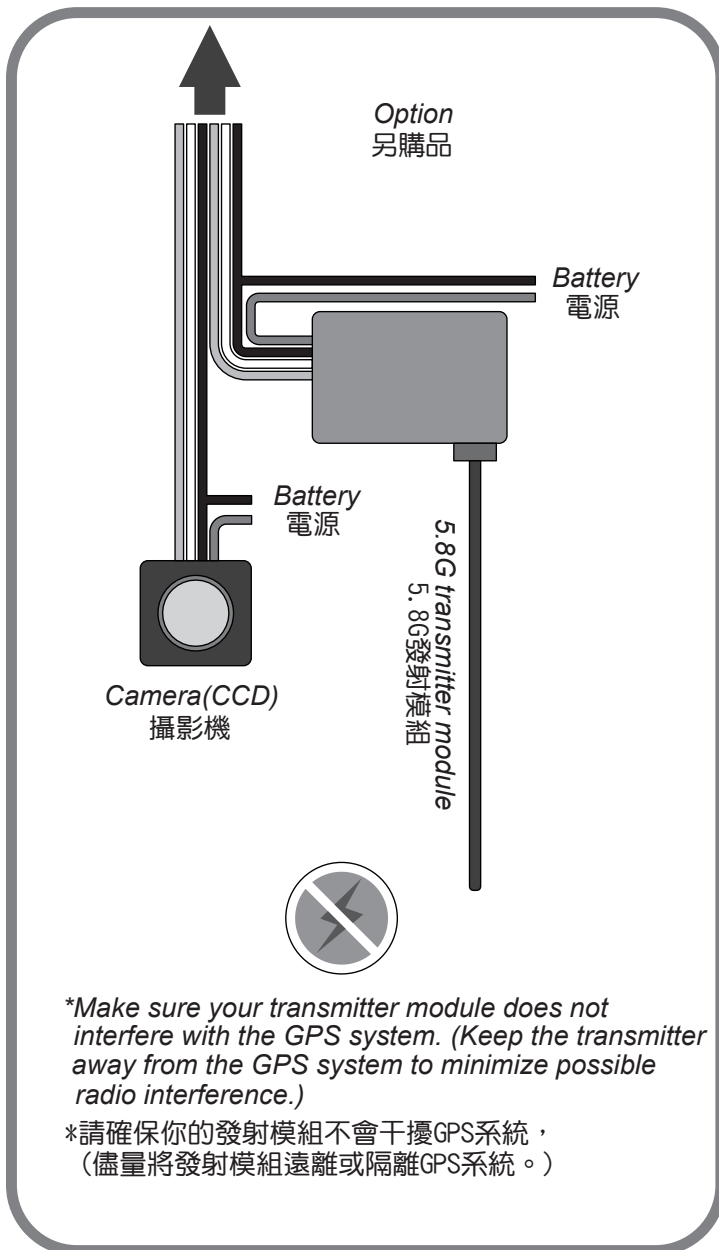
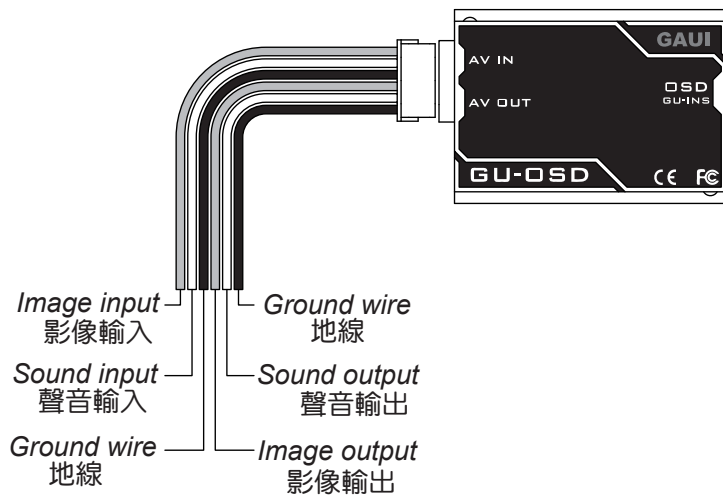


9. When updating procedures is completed (as display on PC), sounds of ESCs will stop, "MODE" LED light will turn off, you should then disconnect the battery of the 500X. 完成後(畫面會顯示)，ESC聲響停止、MODE紅燈熄掉，此時先移除機體電源。

10. Remove the USB cable, the firmware updating procedure is completed. 接下來移除USB線，完成更新動作。

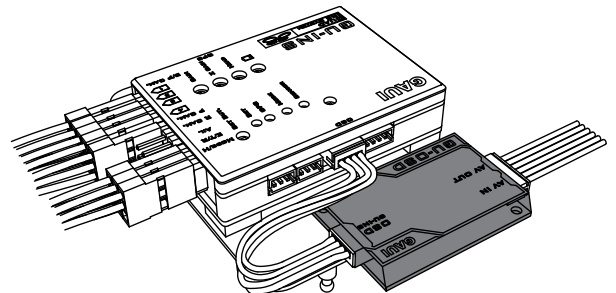


After updating the firmware, you have to reset the ESCs (P.6) and implement the calibration procedures (P.10) again, if you installed the camera gimbal, you need to recalibrate the camera gimbal again. 完成後需重新設定ESC (P. 6) 及微調校正 (P. 10)，若有設定雲台也必須重新校正。



Insert the connection cable of GU-OSD to the "OSD" socket on GU-INS, and connect the other end to your OSD devices.

用連接線將GU-OSD接至GU-INS的OSD插槽內，另一端則連接CCD及傳輸設備。



Install the GU-OSD to the platform.
將GU-OSD貼於平台上。



On Screen Display Interface OSD顯示介面

Flight mode (R- Manual, A- Auto balance, G- GPS positioning)

飛行模式 (R-手動、A-自動平衡、G-GPS定位)

Straight distance
直線距離

Attitude
機體姿態

Number of satellites received
衛星數

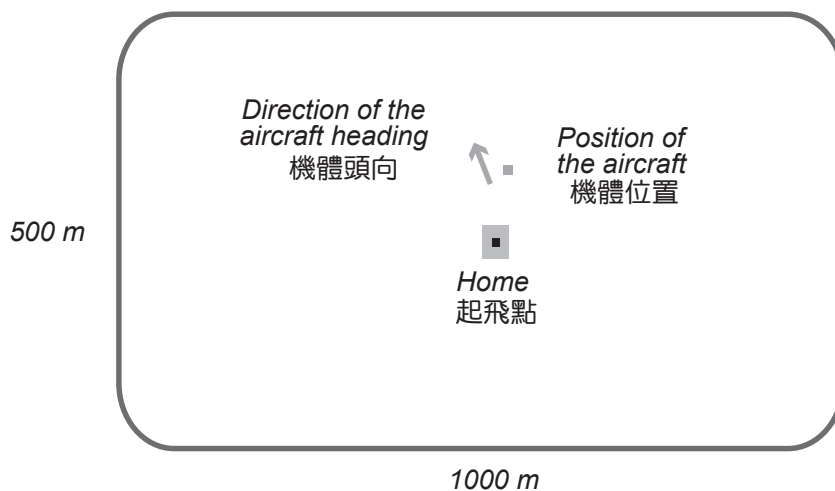


Residual battery
capacity
電池殘量

Altitude
飛行高度

Speed
飛行速度

Operating time
開機時間



The central area of the OSD image displays as a radar chart (as illustrated), and the relative distance represents on the display is 500m (y-axis) X 1000m (x-axis).

畫面中心以雷達方式顯示呈現相關位置為500mX1000m。



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MADE IN TAIWAN