



## Instruction of Arkbird-Tiny V2.10 Upgrade

1. "Flight Record" is optional on the main menu to record the time, voyage, data of power consumption and various maximum records of the flights. "RECENT" means current flight record, "RECORD" contains the total record.

2. It is newly endowed with "Launch Assist" function which can help to control throttle and reduce the difficulty of take-off in manual throwing process. Then switched to balance mode, and the throttle will not be started, OSD displays "throttle's volume" and "Launch" tip (as is shown below), which means launch assist will occur. Run up with aircraft in hands, when the thethe speed is higher than 5kmph, the throttle will start output and automatically control the take-off.

Note: This function can only be started when more than 6 GPS satellites are available. In order to ensure safety, in run-up process, lower the throttle stick, lower the aircraft head down 35 ° or stop the run-up, throttle will be disabled. When the aircraft flies at more than 15m in height, more than 100 m away, launch assist will be disabled and throttle will under normal control.

3. "Dir Only" in "Lock Dir/Heig" of CTL menu is optional. In this mode, direction will be fixed controlled but no height lock control; this function could be used for climbing-up flight.

4. V tail mixing control is optional. In the Flight Parameters menu, the fourth option "Mix" is set as "Vtail" activation, and mixing control by 2nd and 4th channels. The 2nd channel should be wired with the left wing of V tail, and 4th channel with the right V wing.

## How to update Tiny to the latest version?

In a word, Similar as the updating way of Arkbird OSD 1.0 flight controller. Get ID and send it to Arkbird email: [Arkbird@foxmail.com](mailto:Arkbird@foxmail.com).

PS: Mark "For Tiny Updating" is very important.

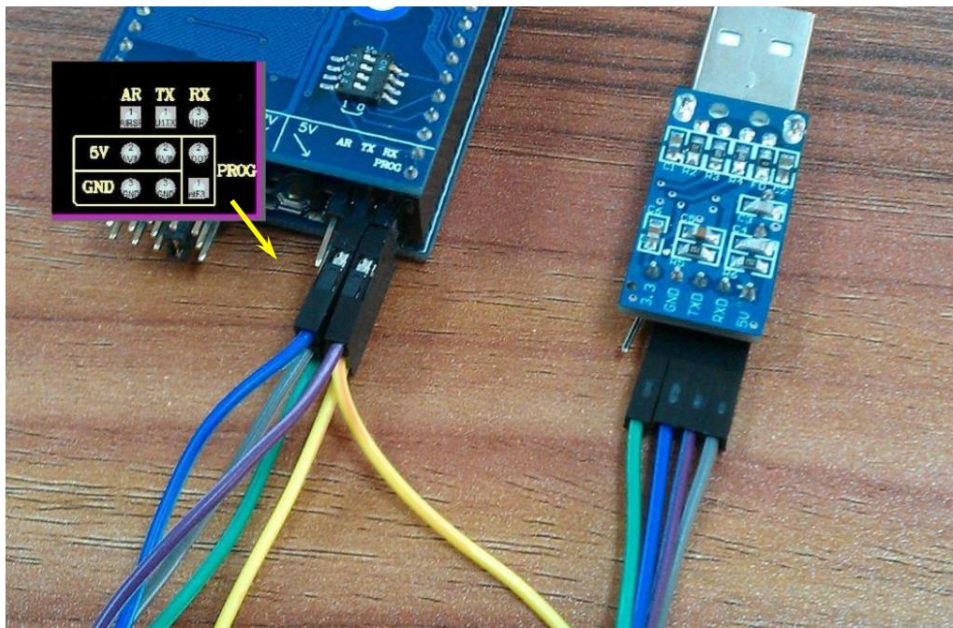
## Arkbird Firmware Update Instruction

For video instruction, please view: <https://www.youtube.com/watch?v=pg6Xa-5oxlg>

1. Please install" USB to TTL" device driver first. (For PL-2303HX).
2. Connecting Arkbird to" USB-TTL" device. There are TX, RX, GND and 5V pins on Arkbird (see pic.), please connect these four pins to the corresponding pin on USB-TTL device, which is TX to TX, RX to RX. (If you use your own USB-TTL device, sometimes TX should be connected to RX and RX should be connected to TX. If failed to connect to computer, please do cross-check).

**Note:**

If you don't short the PROG pin (see pic.), press RESET button to enter "Normal Mode."If you short the PROG pin, press RESET button to enter "Write Mode."



Doubled board stack-up version

3. Make sure the connection is correct.

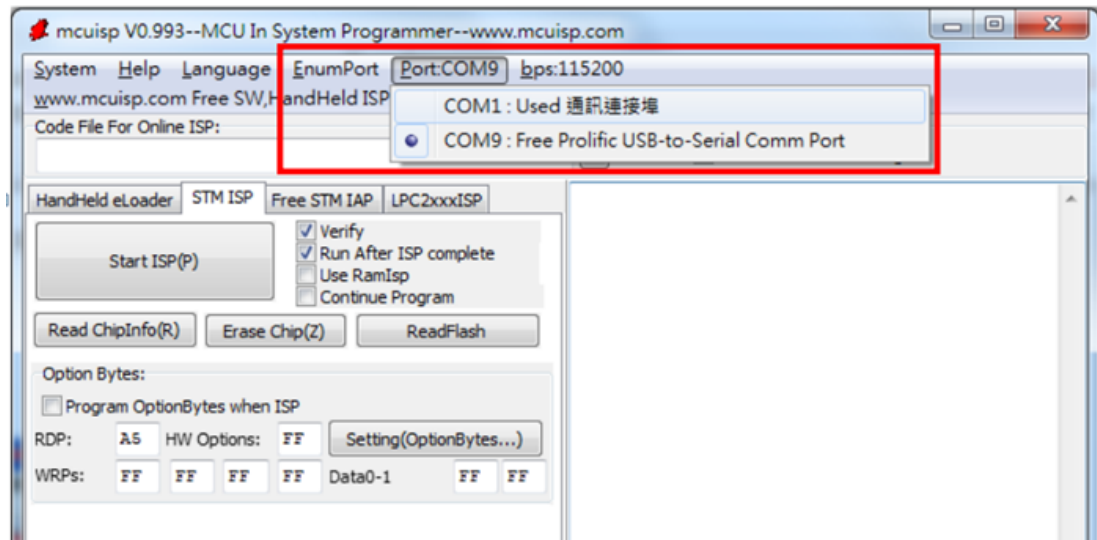
**Do not short the PROG pin, open "SerialPortExper.exe," and press RESET button on Arkbird.** Once choosing correct com port and Baud Rate, there will be an information output as the picture below, which means the connection is correct.



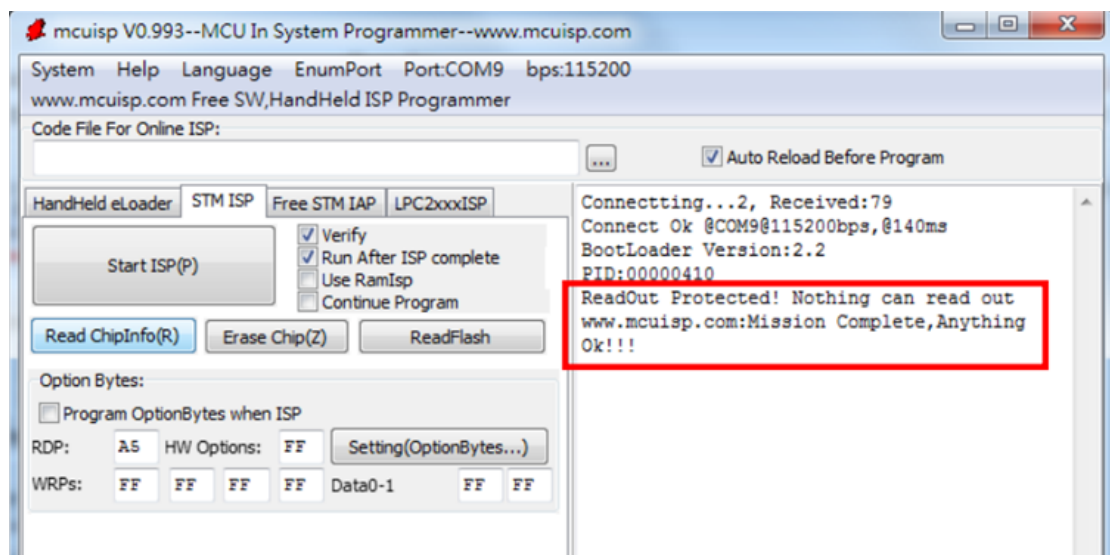
4. Short the **PROG** pin, open “mcuisp.exe,” and click “EnumPort” (see pic.).



mcuisp.exe

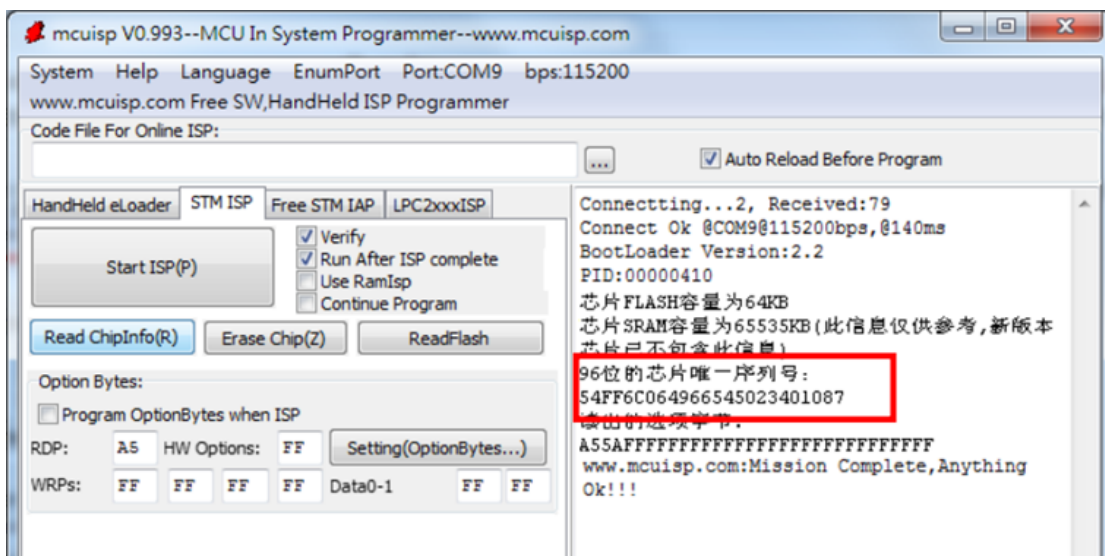


5. Click “Read ChipInfo” (see pic.) To get Arkbird ID Number, when showing “Connecting”, please press RESET button.

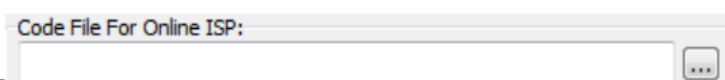


6. If it shows “Read Out Protected!”, which means correct connection, click “Erase Chip” to clean the Read protection. (Please note Arkbird won’t work once cleaning) .

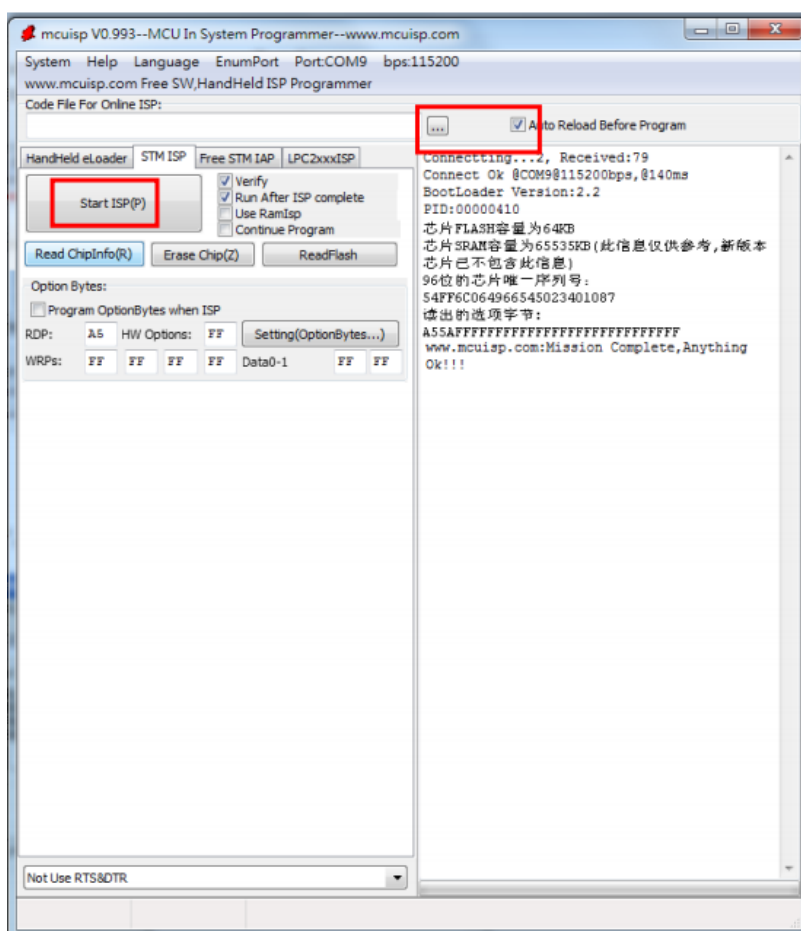
7. Click “Read ChipInfo” again, then remember the ID Number shown, (The ID Number should be 12 numbers like “54FF6C064966545023401087” shown in the picture below) .



Please mail the unique ID Number to [arkbird@foxmail.com](mailto:arkbird@foxmail.com) we will provide you the new file which is authorized. Do not enter to next step before receiving the new file.



8. Click [Browse Button], choose "file (\*.hex)" from factory. Check "Verify" and press "Start ISP" button to write new file to Arkbird.



Arkbird will run automatically while 100% finished.

**It will do neutral point alignment automatically while power on at the first time.**

**Attention:** You cannot proceed write processing without ID Number and authorized file, and the device is possible to be damaged.

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**Issue that may occur:**

1. Searching no COM PORT and no \$A information output: Reset com port on computer, or re-install USB-TTL device driver ( for PL-2303HX ) .
2. Mcuisp is stuck at “Connectting...” and kept counting down, failed to connect: The USB-TTL device may not be able to do write processing, please change the device.