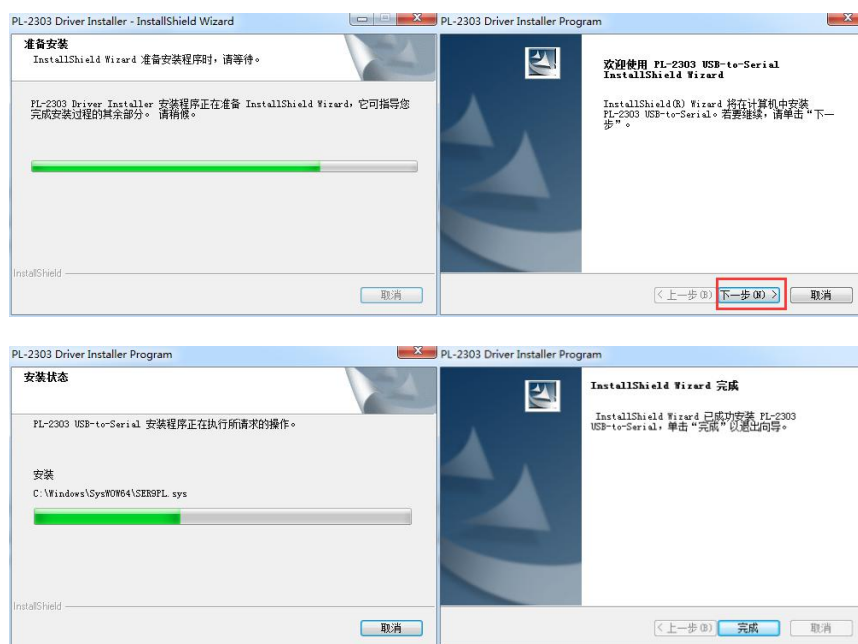**Arkbird Mini Gimbal Camera Instruction**

Upgrading steps introduction:

1. Prepare a computer, install the driver.

2. Read out the control panel's ID code, then send your ID code to Arkbird@foxmail.com and waiting for a reply.

3. Use the hex file which is in the replied e-mail to write the program for gimbal camera.

4. Calibrate the gimbal camera.

5. Upgraded succeed.

Step 1: Prepare the computer, gimbal camera and other related things.
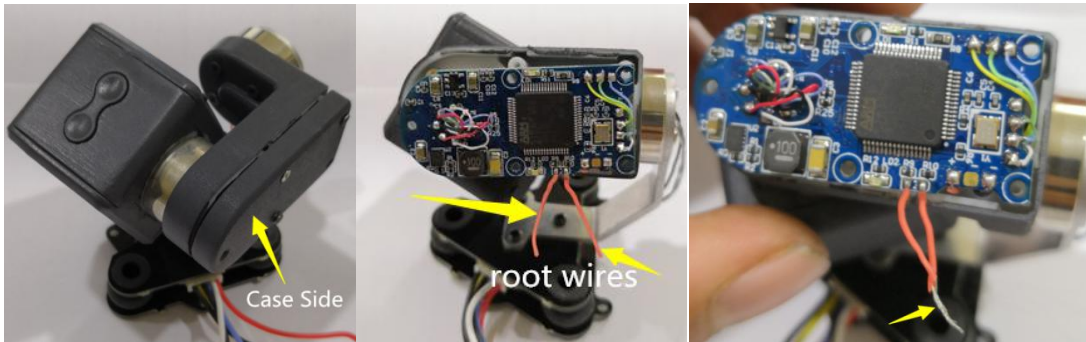
1. At first, you need to prepare a computer with Windows XP/Windows 7/Windows 8.1/Windows 10.

2. Install the serial comm port driver on the computer, its position is here: Upgrade package > Driver folder (\Gimbal upgrade\Driver\..), open the corresponding folder to the computer system and install the related driver to finish installing.
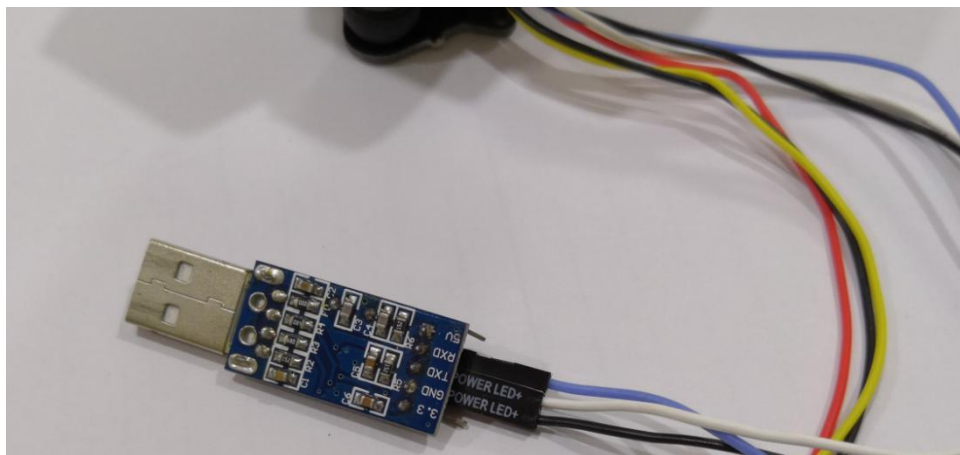

3. Connect the upgrading module into the USB port of computer, waiting for the computer installing driver automatically, after finish install, single click "My computer" (Win XP) or "The Computer"(Win 7) and then click the right mouse button, choosing "Device Manager" and checking comm port number. The picture as below is showing COM7.

4. Open the camera case (the left picture as below), find out two pieces of boot (programming short-connected point) wires(the middle picture as below), short connect the two wires together to one wire (see the right picture as below).

5. Connect upgrading module with camera wires. Wiring order is: 3 wires of 1P line, black-GND, white-TXD, blue-RXD, like the following picture.
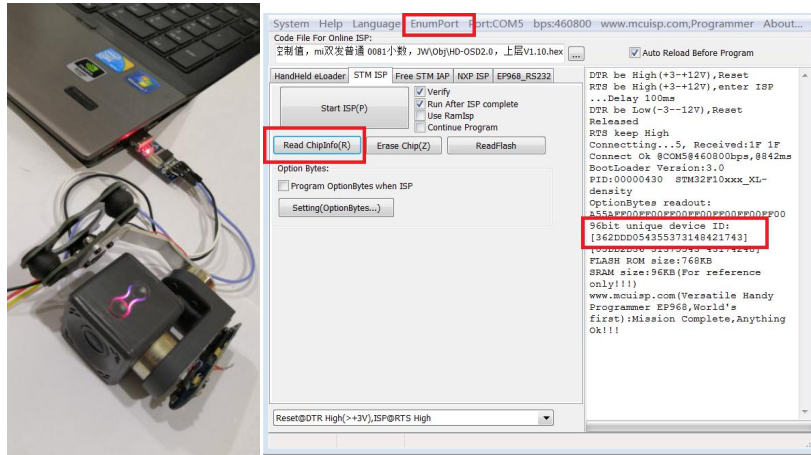

6. Open the upgrading software folder under upgrade package (\Gimbal upgrade\Upgrading software\..), double click it and open "UPDATES 2.0".

Step 2: Reading ID code and send back it.

    1. At first, connect the upgrading module to the usb port of computer, click "EnumPort", choose the comm port number which is demanded in the device manager and power on the gimbal camera, then click "Read ChipInfo", you will get the ID code.
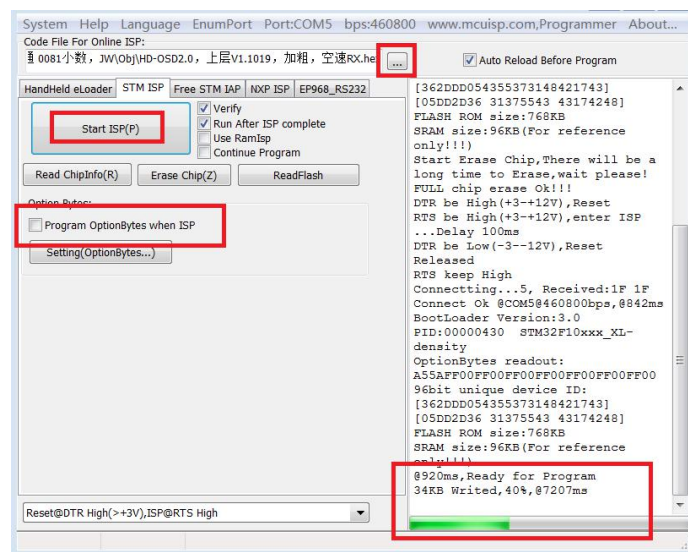

2. Send the ID code back to arkbird@foxmail.com , **Note for update for a gimbal camera**. waiting for a reply. For example, the unique ID code for this upgrading is:

    Gimbal camera

    96bit unique device ID

    [38FFD7054D52323013761943]

    [05D7FF38 3032524D 43197613]

Step 3: Download firmware and update it.
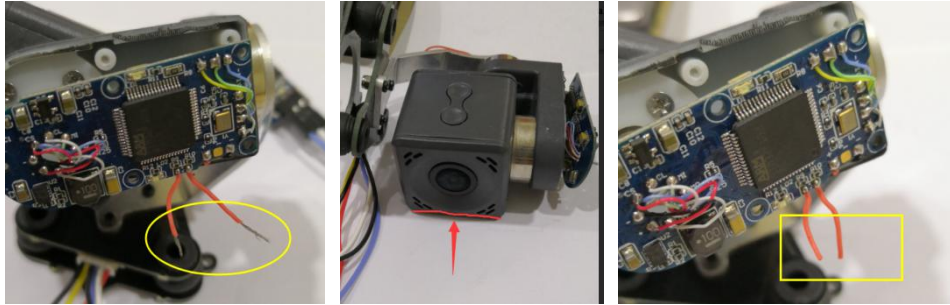
    After get a reply e-mail, please download the attached file, which is named "ARKBIRDBGCx-xx.hex", and save it under the upgrading package. OPen "Updates.exe", click the icon as the blue arrows pointing to, and choose "ARKBIRDBGCx-xx.hex". Then setup other options according to the picture as below, click "Start ISP". Waiting for the progress bar at the bottom right completed.

Step 4: Calibrate Gimbal camera

Break off the two boot wires (see the left picture as below), put the camera level on the ground (see the middle picture as below), power on the camera, waiting for the calibration completion. The progressing must keep the camera static. After finished calibration, both the red light and blue light flash slowly (about 6 seconds), and then trim the boot wires like the right picture as below.

Step Five: Upgrading finished

Put the camera case back as original package, so far the gimbal camera upgrading finish.
//

Issues that may occur:

1. Searching no COM PORT :

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 another computer to test. (Recommend Win XP or Win 7)

Cannot write processing, please remove the option "Ramisp", decrease the writing speed to get more reliable upgrading.

3. In Win10 OS, if you are unable to install the driver

Method 1: Select the right click menu of "This PC", open the Device Manager.

You can see an exclamation mark in the corresponding driver of PL2303 COM.

Right-click the device with exclamation mark, select "update the driver" ,

Select "manually search and install the driver"

Select "select from the list of computer drivers". Select the driver with version "3.0.1.0", then click the next step to wait for the update of driver and readily use it.

← ▯ 更新驱动程序软件 - Prolific USB-to-Serial Comm Port (COM5)

浏览计算机上的驱动程序文件

在以下位置搜索驱动程序软件：

C:\Users\lhl1100.xlhl1100-PC\Documents   ▼   浏览(R)...

☑ 包括子文件夹(I)

→ 从计算机的设备驱动程序列表中选取(L)
此列表将显示与该设备兼容的已安装的驱动程序软件，以及与该设备处于同一类别门所有驱动程序软件。

← ▯ 更新驱动程序软件 - Prolific USB-to-Serial Comm Port (COM5)

选择要为此硬件安装的设备驱动程序

请选定硬件设备的厂商和型号，然后单击"下一步"。如果手头有包含要安装的请单击"从磁盘安装"。

☑ 显示兼容硬件(C)

型号
Prolific USB-to-Serial Comm Port 版本: 3.0.1.0 [2007-2-12]
Prolific USB-to-Serial Comm Port 版本: 3.3.10.140 [2009-11-19]
Prolific USB-to-Serial Comm Port 版本: 3.6.78.350 [2015-6-5]
Prolific USB-to-Serial Comm Port 版本: 2.0.0.19 [2005-8-3]

▣ 这个驱动程序已经过数字签名。   从