

Dobot Firmware Upgrade Instruction

1. Introduction

You can refer to the following chart upgrade your firmware from 1.0 to 1.1. The 1.1 version of firmware provided a more stable serial communication, with which you can enjoy the new features of Dobot iOS APP.

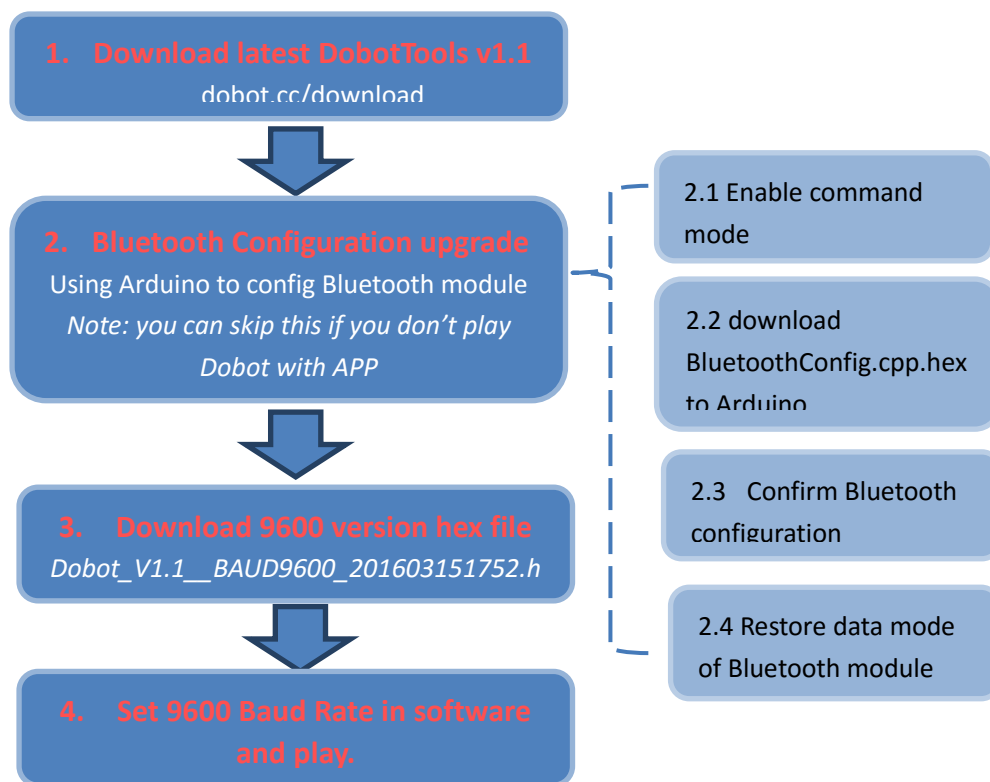


Figure 1 Flowchart of upgrading from 1.0 to 1.1 firmware

2. Bluetooth module configuration manual

For our Dobot's latest firmware compatibility, we must configure the Bluetooth module.

Note:

- This step can be skipped if you **DO NOT** need to use Bluetooth(Mobile Device are using Bluetooth to connect Dobot Controller).
- If this step is skipped, Dobot with firmware 1.1 **CAN NOT** be controlled with APP.

2.1 Enable command mode of Bluetooth module

1. There are two pads on the back of Bluetooth module, as shown in **Error! Reference source not found.**. The Bluetooth module enters the command mode when powered up with pads connected. You can use soldering or wire to connect them.

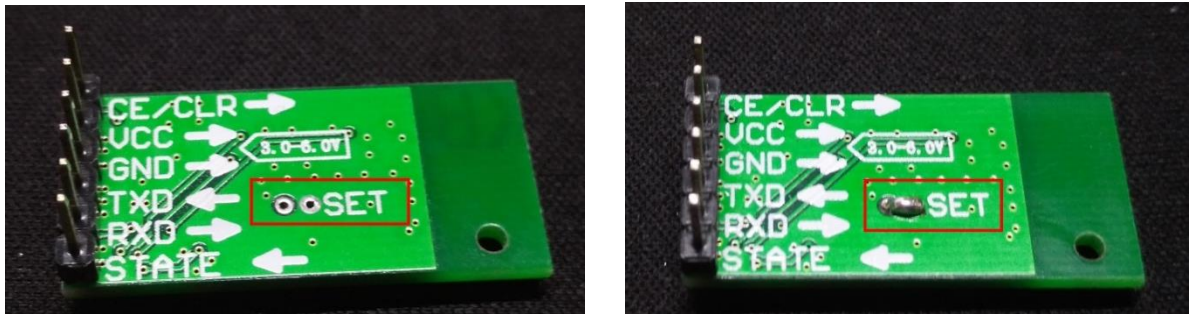


Figure 2 Connect two pads to enable command mode

2. Insert the Bluetooth module into the right area of the Dobot Controller after the pads are connected, as shown in Figure 3.
 - If the blue LED is on and doesn't twinkle, then the module entered the command mode.
 - If the blue LED twinkles, which hints that the pads are not connected successfully, please redo procedure 1.

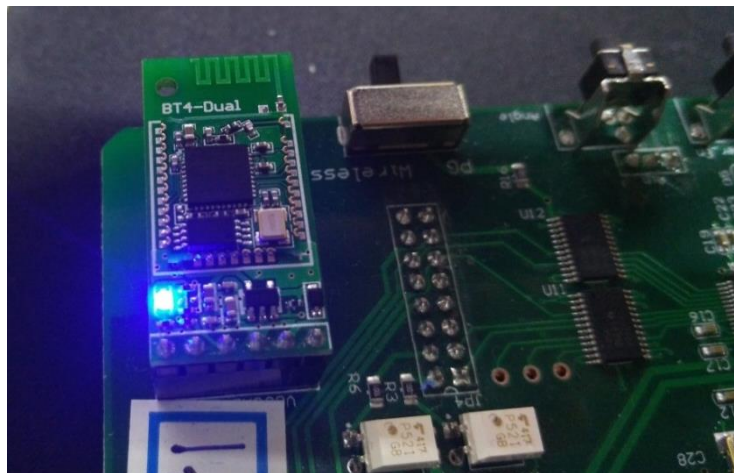


Figure 3 Power Up with command mode enabled

2.2 Download firmware to configure Bluetooth

1. Download newest DobotTools from our Dobot official website and unzip it after download. The folder structure is shown in Figure 4.

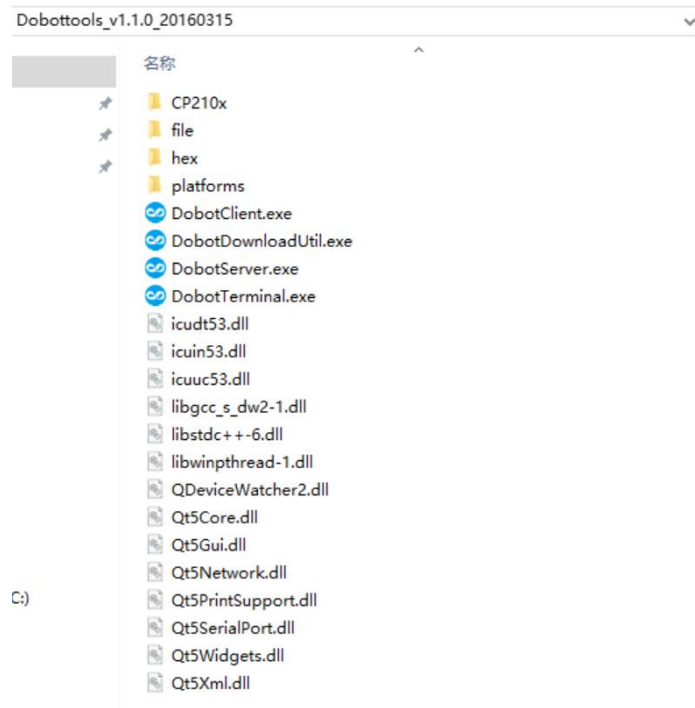


Figure 4 DobotTools Folder Structure

2. Use "DobotTools/DobotDownloadUtil.exe" to download the "BluetoothConfig.cpp.hex", as shown in the following figure.

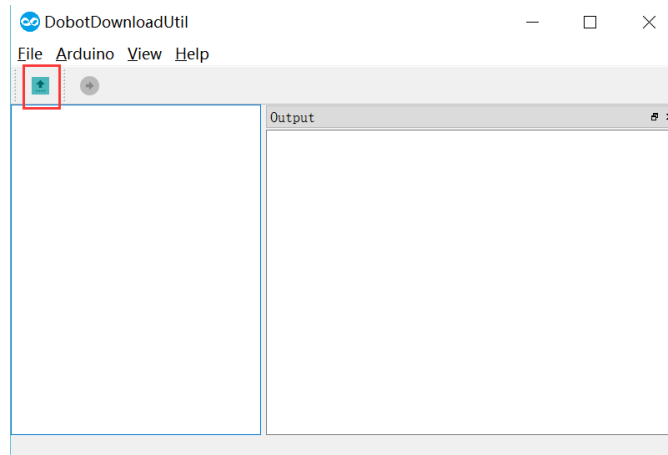


Figure 5 Load hex File

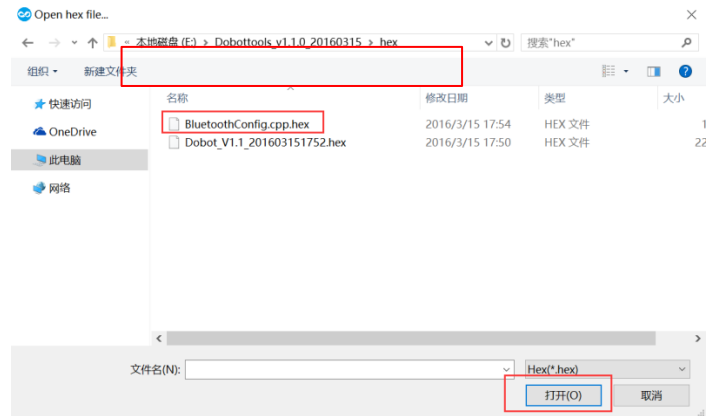


Figure5 Navigate hex file

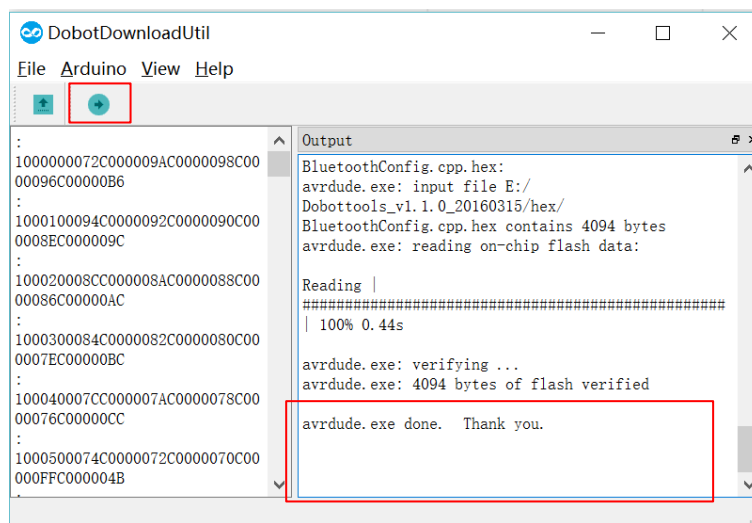


Figure6 Download hex file and success notification

2.3 Confirm Bluetooth configuration

1. Open "DobotTools/DobotTerminal.exe" after downloading the "BluetoothConfig.cpp.hex", and alter the baud rate to 9600, as shown in Figure7.

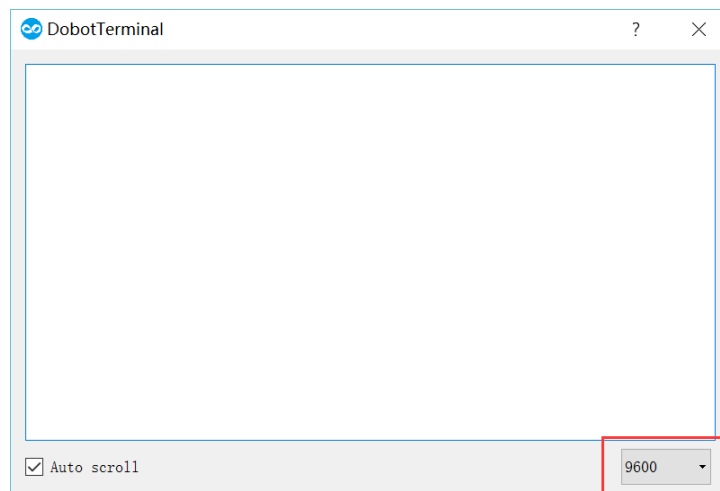


Figure7 DobotTerminal

2. After changing the baud rate, DobotTerminal prints the feedback of the Bluetooth configuration. If the terminal prints “Successfully configure Bluetooth module!”(Figure11), then the module has been configured successfully. If the terminal prints “Failed to configure Bluetooth module!!!”(Figure12), then we have to reconfigure the module from step 1, and check whether the Bluetooth command mode is enabled.

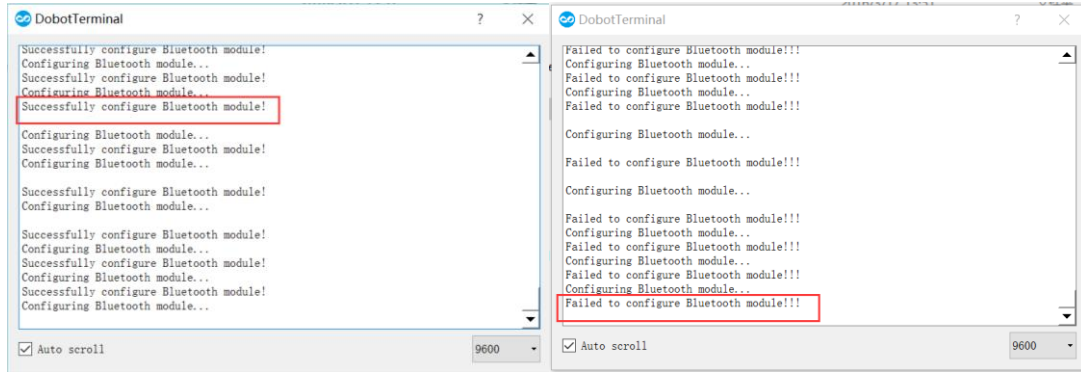


Figure8 Configuration Successful(left) & Configuration Failure(right)

2.4 Restore data mode of Bluetooth module

We connected the two pads of the Bluetooth module to enable the command mode of it. Now we must undo step 2.1 and set Bluetooth to the data mode. **Just disconnect the two pads!**

3. Download latest firmware of Dobot

When we reach this step, we can download the newest firmware of Dobot! The newest firmware is "DobotTools/hex/ Dobot_V1.1_201603151752.hex". You can follow the steps of 2.2.

1. Connect Dobot with USB and Open download tool

DobotDownloadUtil.exe

CP210x	2016/3/15 17:07	文件夹	
file	2016/3/17 12:39	文件夹	
hex	2016/3/17 13:46	文件夹	
platforms	2016/3/14 16:45	文件夹	
DobotClient.exe	2016/3/14 17:06	应用程序	932 KB
DobotDownloadUtil.exe	2016/3/14 16:49	应用程序	69 KB
DobotServer.exe	2016/3/14 17:04	应用程序	292 KB
DobotTerminal.exe	2016/3/15 15:15	应用程序	57 KB
icudt53.dll	2016/3/14 11:10	应用程序扩展	21,061 KB
icuin53.dll	2016/3/14 11:10	应用程序扩展	3,671 KB
icuuc53.dll	2016/3/14 11:10	应用程序扩展	2,045 KB
libgcc_s_dw2-1.dll	2016/3/14 11:10	应用程序扩展	118 KB
libstdc++-6.dll	2016/3/14 11:10	应用程序扩展	1,003 KB

2. Load hex file

*Dobot_V1.1__BAUD9600_2016031517
52.hex*

Dobottools_v1.1.0_20160315 > hex

名称

BluetoothConfig.cpp.hex
Dobot_V1.0_BAUD256000_201601130002.hex
Dobot_V1.1__BAUD9600_201603151752.hex

3. Download firmware to arduino

Click download and check the result

```
File Arduino View Help
[Download Icon]

: 1000000047C1000072C1000070C10
0006EC1000055
:
: 100010006CC100006AC1000068C10
0006EC1000038
:
: 1000200064C1000062C1000060C10
0003EC1000048
:
: 100030005CC100005AC1000058C10
0000C94B58595
:
: 1000400054C100000C94D78D50C10
0004EC1000077
:
: 100050004CC100004AC1000048C10
0000C94178E3A
:
: 100060000C945A080C9439900C948
D913EC1000068
:
: 100070003CC100003AC1000038C10
00036C1000098
:
: 100080000C94A48D32C1000030C10
0002EC10000C6
:
: 100090000C9479900C94CC9128C10
00026C10000EA
:
: 1000A00024C1000022C100000C947
D8D1EC10000FF
:
: 1000B0001CC100001AC1000018C10
0000C94508D32
:

Output
avrdude.exe: AVR device initialized and ready to accept instructions
Reading | ##### | 100%
0.01s
avrdude.exe: Device signature = 0x1e9801
avrdude.exe: reading input file "C:/SVN_HOME/01-h10y×e/06-• g²¼/
!U!eV1.1/PC APP/Windows/Dobottools_v1.1.0_20160315/
Dobottools_v1.1.0_20160315/hex/Dobot_V1.1__BAUD9600_201603151752.hex"
avrdude.exe: writing flash (80792 bytes):
Writing | ##### | 100%
11.64s
avrdude.exe: 80792 bytes of flash written
avrdude.exe: verifying flash memory against C:/SVN_HOME/01-h10y×e/06-
• g²¼/!U!eV1.1/PC APP/Windows/Dobottools_v1.1.0_20160315/
Dobottools_v1.1.0_20160315/hex/Dobot_V1.1__BAUD9600_201603151752.hex:
avrdude.exe: load data flash data from input file C:/SVN_HOME/01-
h10y×e/06-• g²¼/!U!eV1.1/PC APP/Windows/Dobottools_v1.1.0_20160315/
Dobottools_v1.1.0_20160315/hex/Dobot_V1.1__BAUD9600_201603151752.hex:
avrdude.exe: input file C:/SVN_HOME/01-h10y×e/06-• g²¼/!U!eV1.1/PC
APP/Windows/Dobottools_v1.1.0_20160315/Dobottools_v1.1.0_20160315/hex/
Dobot_V1.1__BAUD9600_201603151752.hex contains 80792 bytes
avrdude.exe: reading on-chip flash data:
Reading | ##### | 100%
8.75s
avrdude.exe: verifying ...
avrdude.exe: 80792 bytes of flash verified
avrdude.exe done. Thank you.
```