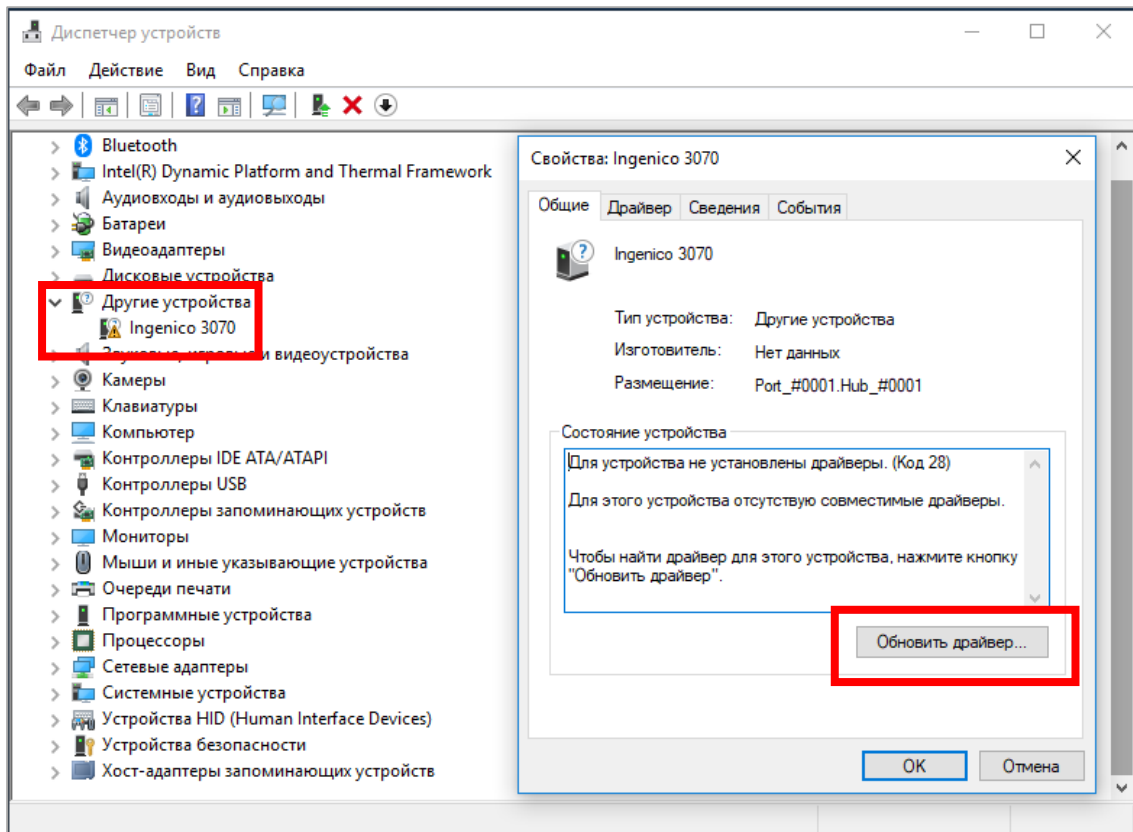
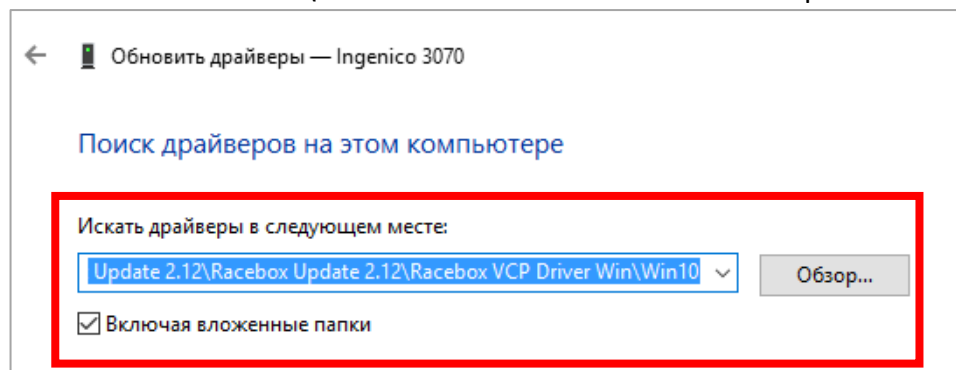


Driver Installation

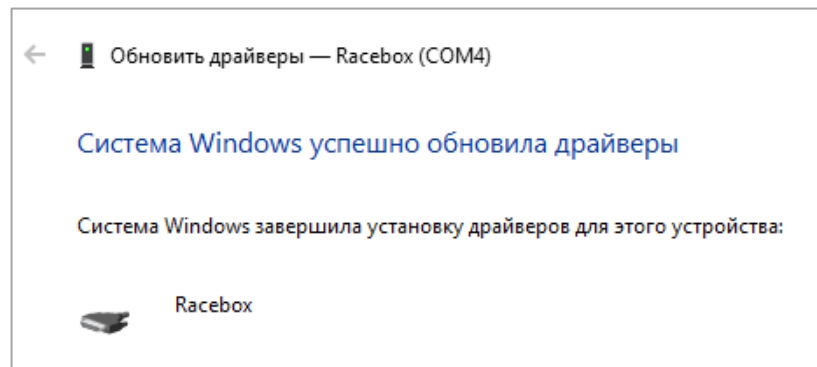
1. To install device driver for Windows 7 (64-bits) and Windows 10 first need to disable driver signature enforcement. You can find instruction in Internet, for example here: <https://windowsreport.com/driver-signature-enforcement-windows-10/>
2. Connect Racebox to PC via MicroUSB cable
3. Run Device Manager and confirm that new unknown device is appeared in the list
4. Open Preference page of this device and click “Update Driver” button



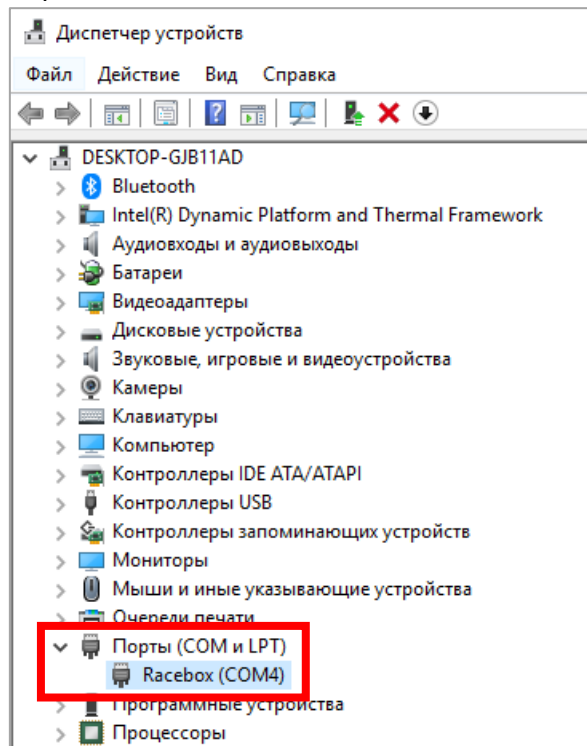
5. Select “Search driver on this PC”
6. Select path to the folder with drivers: “C:\...\Racebox VCP Driver Win\Win7” or “C:\...\Racebox VCP Driver Win\Win10”. Check “Include subfolders” option



7. Click “Next” and wait for driver installation

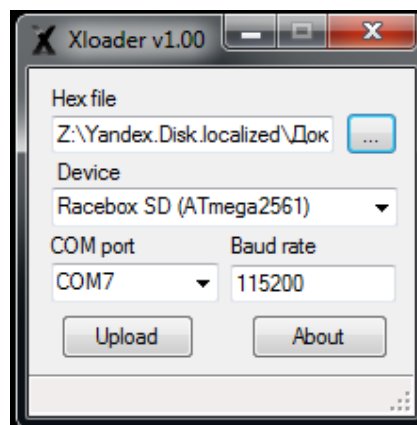


8. Confirm that new device with name **Racebox** or **Silicon Labs** is appeared in the Device Manager. Remember COM-port number of this device



Option 1: Flashing with XLoader

1. Run **XLoader.exe** application



2. Select COM-port of connected Racebox
3. Select device type: Racebox SD/Pro or Racebox Lite
4. Choose HEX-file with firmware

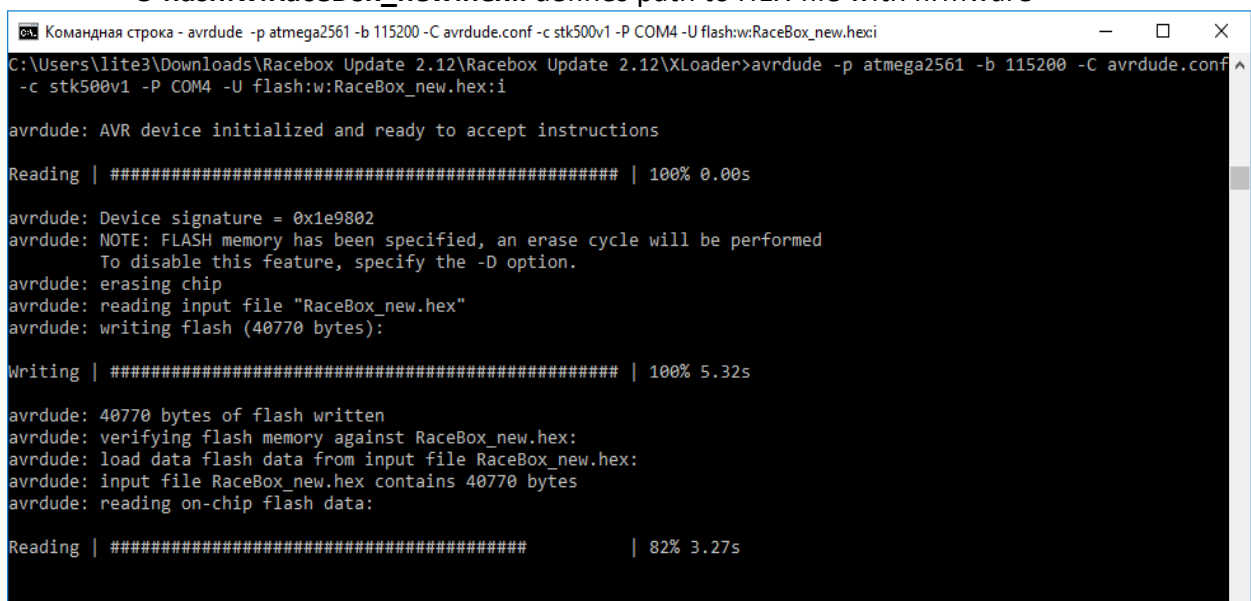
5. Push **Upload** button to start flashing
6. Wait for ~40 seconds for flashing completion. Do not use the device during flashing!
7. Confirm that new firmware version shown after device power up

Option 2: Flashing with Avrdude tool

1. Run Command Line
2. Choose current folder to XLoader with "cd" command (i.e. cd C:\Users\ldmitrij\Downloads\Racebox Update 2.12\XLoader)
3. Copy HEX-file to XLoader folder
4. Run **avrdude** tool with following parameters:

```
avrdude.exe -C avrdude.conf -p atmega2561 -c stk500v1 -P COM4 -b 115200 -D  
-U flash:w:RaceBox_new.hex:i
```

- **-p** defines microcontroller type: **atmega128** for Racebox Lite or **atmega2561** for Racebox SD and Pro
- **-P** defines COM-port name with connected Racebox device
- **-U flash:w:RaceBox_new.hex:i** defines path to HEX-file with firmware



```
Командная строка - avrdude -p atmega2561 -b 115200 -C avrdude.conf -c stk500v1 -P COM4 -U flash:w:RaceBox_new.hex:i
C:\Users\ldite3\Downloads\Racebox Update 2.12\Racebox Update 2.12\XLoader>avrdude -p atmega2561 -b 115200 -C avrdude.conf
-c stk500v1 -P COM4 -U flash:w:RaceBox_new.hex:i

avrdude: AVR device initialized and ready to accept instructions

Reading | ##### | 100% 0.00s

avrdude: Device signature = 0x1e9802
avrdude: NOTE: FLASH memory has been specified, an erase cycle will be performed
To disable this feature, specify the -D option.
avrdude: erasing chip
avrdude: reading input file "RaceBox_new.hex"
avrdude: writing flash (40770 bytes):

Writing | ##### | 100% 5.32s

avrdude: 40770 bytes of flash written
avrdude: verifying flash memory against RaceBox_new.hex:
avrdude: load data flash data from input file RaceBox_new.hex:
avrdude: input file RaceBox_new.hex contains 40770 bytes
avrdude: reading on-chip flash data:

Reading | ##### | 82% 3.27s
```

5. Wait for flashing completion and confirm that new firmware version is shown after device power up