RFID DOMINATOR - MANUAL

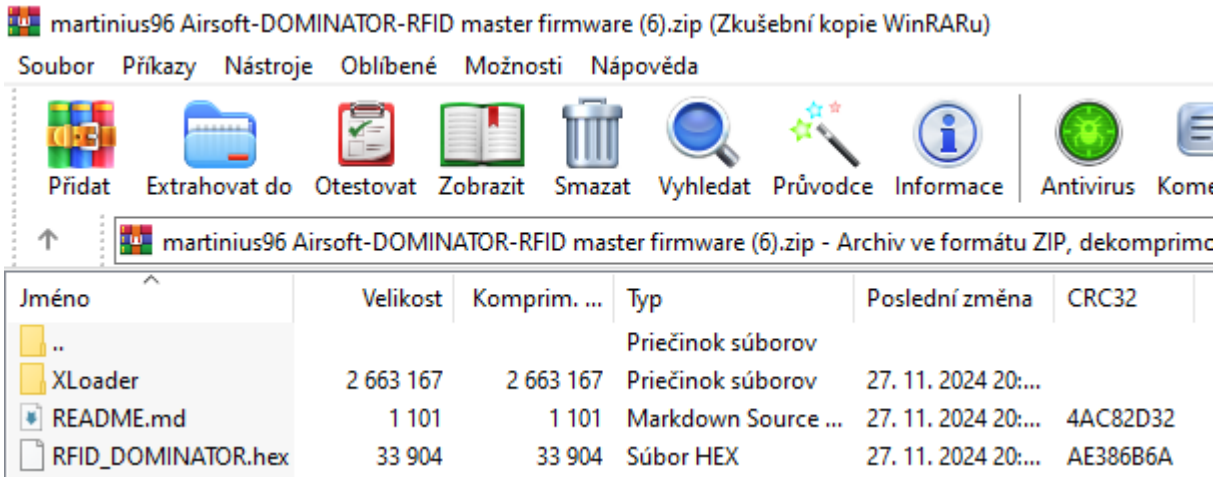
How to test firmware? Step-by-step guide

Thank you for your interest in trying our DEMO version of RFID DOMINATOR.

Let's download and upload test firmware to have it running in a minute!

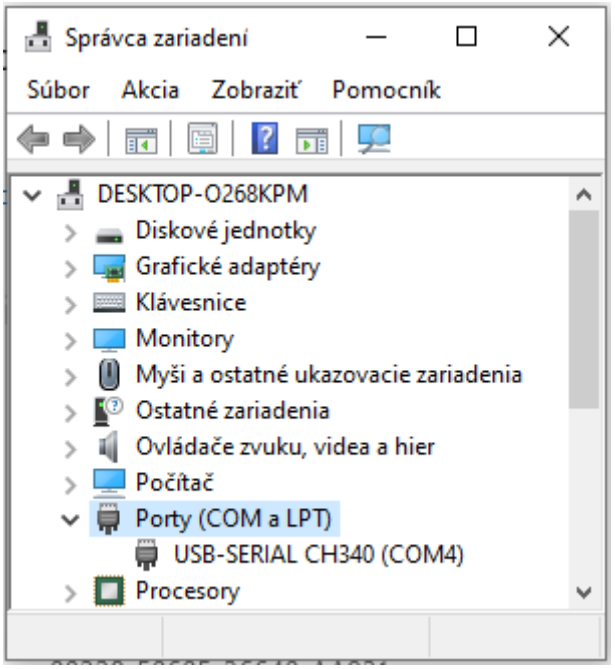
First of all, download DEMO firmware from https://your-iot.github.io/DOMINATOR/, or directly via https://download-directory.github.io/?url=https%3A%2F%2Fgithub.com%2Fmartinius96%2FAirsoft-DOMINATOR-RFID%2Ftree%2Fmaster%2Ffirmware

After the .zip archive with firmware and XLoader tool is downloaded, you can open and extract the .zip archive. There is .hex firmware named "RFID_DOMINATOR.hex" compatible with ATmega328P MCU (Arduino Nano, Uno, Pro Micro).

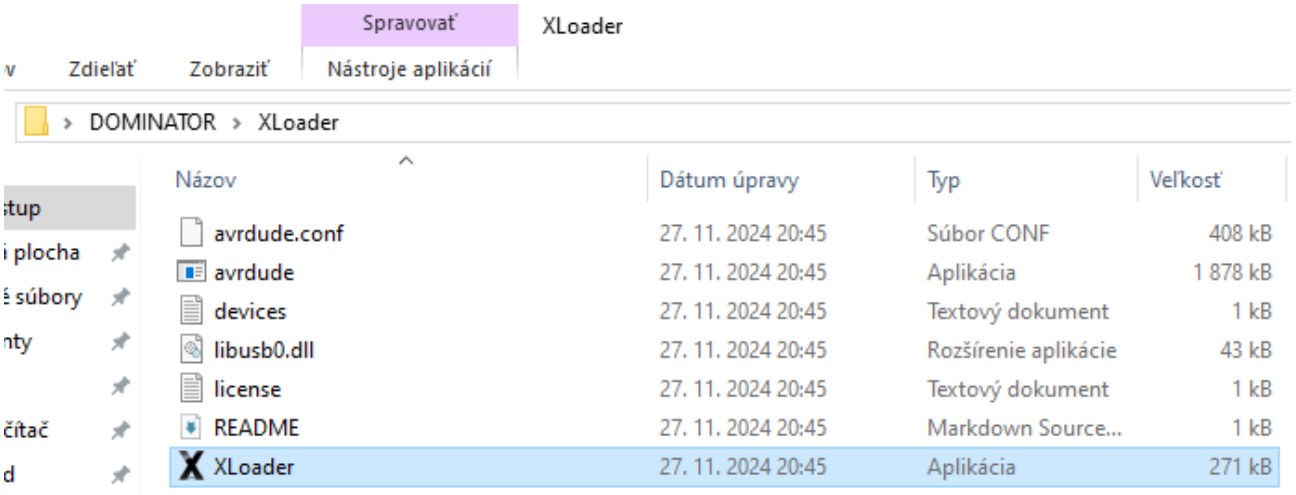


Connect your Arduino Nano to your computer. Continue in the guide only if you hear the "Windows Plug-in" sound when the peripheral is attached via USB. If no sound is played, you are probably missing the USB-UART driver for your Arduino Nano. Clones standardly are using CH340 chinese USB-UART converter.

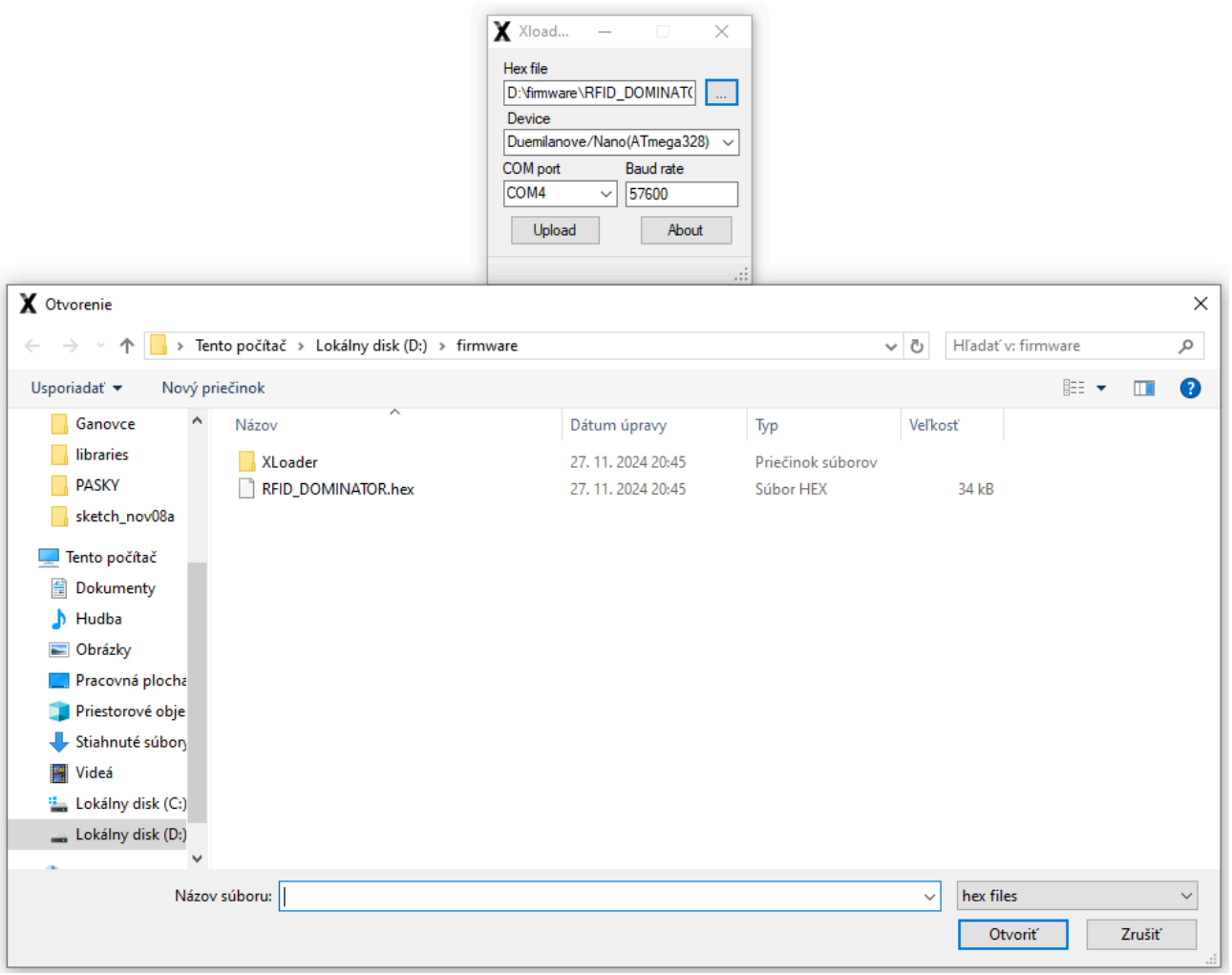
Download it from https://www.wch-ic.com/downloads/CH341SER_EXE.html and install it to your PC. Now everything should work and you will see Arduino Nano on COM port in Device Manager too.



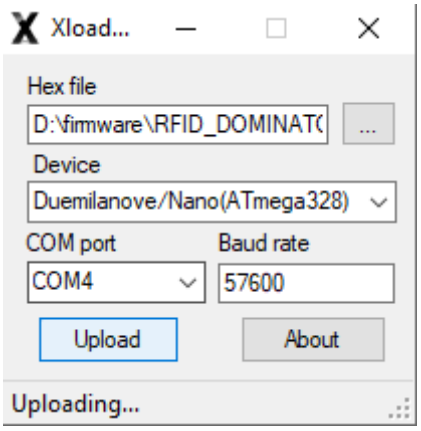
Navigate to XLoader directory tool and open XLoader.exe application.



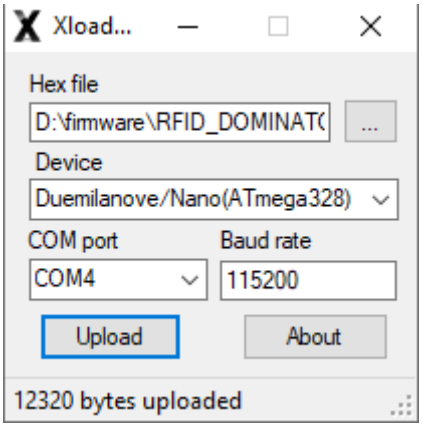
In the XLoader.exe application, choose HEX file, then Device, target AVR. Set the COM port, that will automatically appear as available and set the Baud rate. **Important:** Baudrate 57600 is valid for Arduino with Old Bootloader (standardly all Arduino Nano V3.0 clones), for New Bootloader (Arduino Uno) set 115200 baud/s.

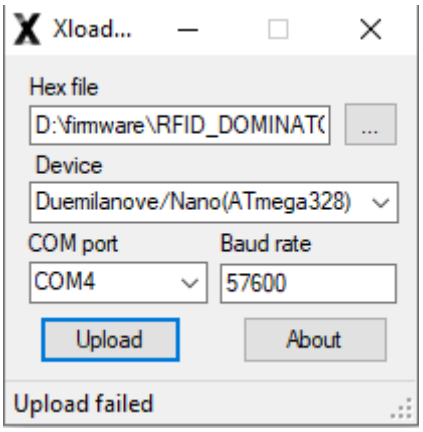


If everything is set, click on Upload. At the bottom row of XLoader window, you will see the current status. It starts Uploading… and then you will get final result, if firmware was uploaded properly or not. If there is an error with opening the COM port, replug your USB cable again and again Upload.



In this case upload wasn't successful, as I was using Keywish Arduino Nano that has a New Bootloader and upload worked only at 115200 baud/s. As you can see, at 57600 baud/s upload ended with Upload failed alert.





Automatically, after upload Arduino starts to operate. You will also see the LCD display output that will be asking you to attach any 4 RFID tags you would like to use in DEMO test. Maximum time range per demo version is limited to 15 seconds for each of 2 teams. If interested in full version, let us know!



Full DOMINATOR can be cloned to as many devices as you want. You can create any amount of RFID DOMINATOR points within your Airsoft / Paintball playground, event place. Each of them will work independently and will reacts to the same RFID cards that are inclusive in the firmware.

If you are interested in the paid version for tailor-made firmware for your device, you can attach also other RFID cards to the actual firmware you would like to use.

On the UART interface you will see UID (unique identifier) of RFID cards. Then write these into the template and export it as .xlsx / .pdf and set it to us to compile the firmware for you. You can compile this firmware for as many devices as you need!
https://docs.google.com/spreadsheets/d/1EHpdJi8v84eJ-6ExEPT6JuPkxI9Tfbm8v85zGRFvJ1Q/edit?usp=sharing

Find more about the RFID DOMINATOR: https://your-iot.github.io/DOMINATOR/