# STM32 Cube Programmer

## User Guide

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## Description

STM32 Cube Programmer is tool by STMicroelectronics to load firmware into these PIE devices:

- PIcon II Console
- Omega Jr
- RS485 Smart DBox
- Kraus/Bennett DBox
- Mechanical Relay
- Hybrid Multi-Pump
- RLM Electronic and Mechanical

## Hardware Required

One of the following cables will be used depending on the device

1. USB A to USB B cable
2. Straight through male to female serial cable
3. USB A to Micro USB cable

## Software Download

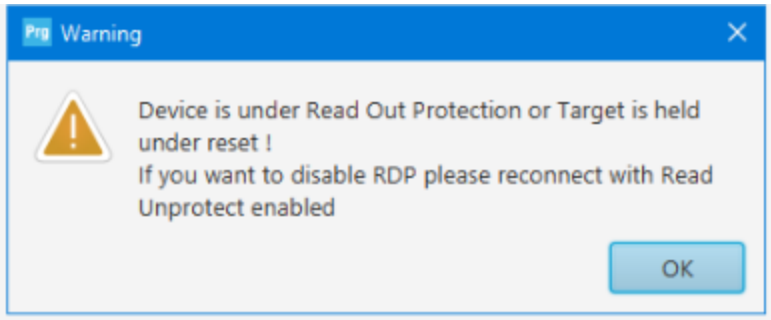
Download and install the STM32 Cube Programmer from here

## Setup

1. Power up the device into a LOAD mode. Refer to documentation for each device to determine how that is accomplished. This may be a push button or a jumper setting.

## Programming

1. Open *STM32CubeProgrammer*
2. On the right side of the program, select UART from the drop down menu
3. In the UART Configuration section
    a. Port: COM Port of the pcb
        i. If not shown in the dropdown list, use the refresh button to the right of this menu
    b. Baudrate
        i. USB B connections: 921600
        ii. Serial connections: 460800
        iii. Micro USB connections: 460800
    c. Parity: Even
    d. RTS: Low
    e. DTR: Low
4. Press Connect and see that it now says Connected in the upper right corner
    a. If a Read Out Protection warning occurs, check the *Read Unprotected (MCU)* option




    b. Press and hold the LOAD button on the pcb
    c. Press Connect until is says Connected, then release the LOAD button
5. In the upper left corner of the program, select the three horizontal lines to show the left side panel
6. Select Erasing & programming
    a. File path: select from the dropdown menu or Browse to the file
    b. *Run after programming* should be the only option checked
    c. Press Start Programming
7. See the loading progress at the bottom of the program
8. When the download is complete, the board will reset and the HB LED should be flashing
9. The program will disconnect from the board upon reset