ProtoThrottle™

Realistic Control Stand Throttle

Firmware Update Instructions

Visit the Iowa Scaled Engineering website and store to learn more about our full line of model railroad electronics.

www.iascaled.com

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www.protothrottle.com

1 Download the .hex file to your computer from the product page on the Iowa Scaled Engineering website (www.iascaled.com). Look under the "Firmware" section for the latest revision.

2 Attach the programmer to your computer using a mini USB cable.
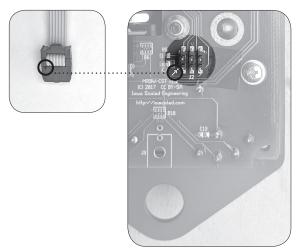
Cable to ProtoThrottle

Mini USB to computer

Programmer
Important: *make sure the slide switch is set to 3.3V*

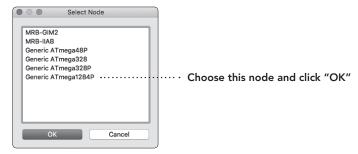⚠️ *If the yellow LED on the programmer is lit, the slide switch is not set correctly. **Do not** connect to the ProtoThrottle or damage may occur.*

3 Attach the ribbon cable to the 6-prong male receiver on the printed circuit board. Make sure the triangle shape on the ribbon cable's female connector matches with the white arrow on the male receiver.
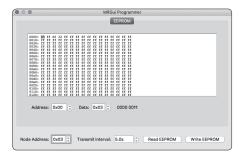
4 Follow the directions in our blog article to install the MRGui application for either:
• Mac: www.iascaled.com/using-mrgui-on-mac-osx/
or
• PC: www.iascaled.com/blog/using-mrgui-on-windows/

5 Once you have the MRGui app installed. Open the app and the Select Node screen will appear:

Select Node

MRB-GIM2
MRB-IIAB
Generic ATmega48P
Generic ATmega328
Generic ATmega328P
Generic ATmega1284P ·············· **Choose this node and click "OK"**

OK   Cancel

6 After choosing the node, the MRGui programmer screen will appear. This screen is for reference only.

MRGui Programmer

EEPROM

Address: 0x00   Data: 0x03   0000 0011

Node Address: 0x03   Transmit Interval: 5.0s   Read EEPROM   Write EEPROM

7 In the menu under "Program" choose "Update Firmware…" and find the firmware update file to initiate upload. The Console screen (below) will appear and show running progress.
When complete your firmware is updated!

Console