

Set Arduino Pro Mini Brownout Level

As default the extended fuse for the Arduino Pro Mini is normally set to 0x05 on Pro Minis giving a brown out level detect of 2.7V.

This is OK if your using a 3.3V regulator, but a little close for a processor running at 3V as it might be if the power source is 2 x AA batteries.

You need an ATMEL programmer to change this setting, I use a UTK500 which is a STK500 clone.

First install WINAVR;

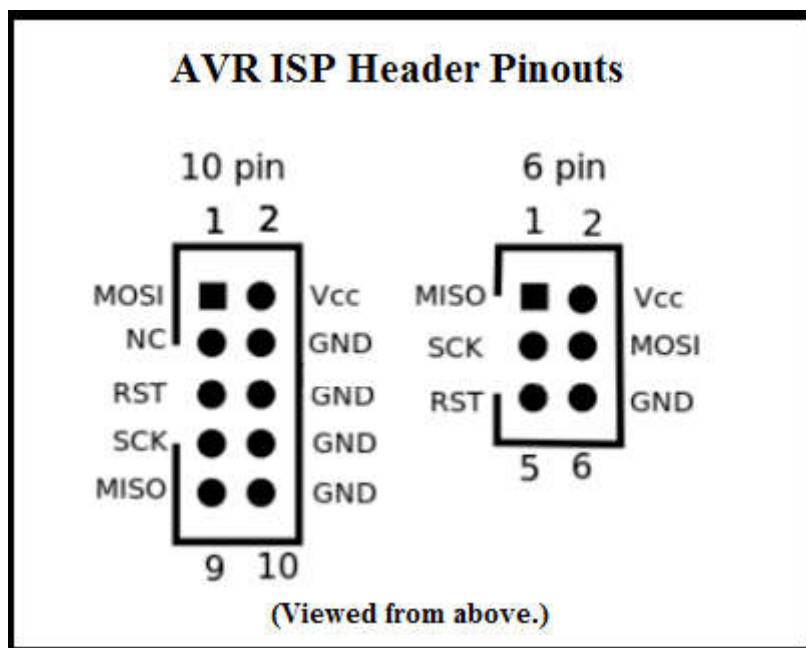
<https://sourceforge.net/projects/winavr/>

Then install AVRDUDESS

<http://blog.zakkemble.co.uk/avrdudess-a-gui-for-avrdude/>

Plug in the programmer to USB, mine installed as a CH340 device on COM6.

You need to connect the ISP header to the Pro Mini, this is the pinout;

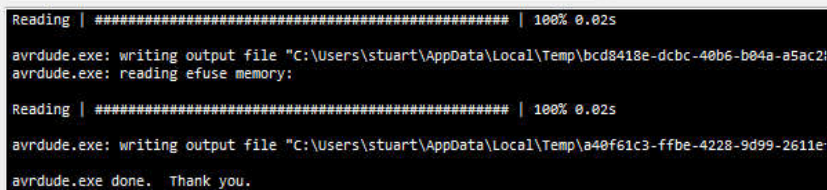


Connect VCC and GND on the programmer to the respective pins on the Pro Mini, then;

MOSI to pin 11, RST to pin RESET, SCK to pin 13 and MISO to pin 11.

Start AVRDUDESS and set the programmer as STK500 and the correct COM port.

If you then select 'Detect' for the MCU the bottom window should report that there is a 328P connected;



Note that by default the E (extended) fuse is set to 0x05, which represents 2.7V brownout. Change the fuse value to 0x06 for a 1.8V brownout level and select the 'Write' button, you should see the message '1 bytes of efuse verified' in the bottom window.

That's it.

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