

ECE3411 – Fall 2015

Lecture # 0

Potential Bugs & their Fixes for ATmega328P

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Serial Number Bug

There is a bug in the serial number on some of the ATmega328P-XMINI boards making them not recognizable by Atmel Studio programming/debugging.

■ Symptoms

- If your board has a unknown char in the serial number there is a possible fix.
- To see your board serial number start Atmel Studio and go to Tools – Device programming – select tool, this will list the mEDBG with serial number.
- If some of the characters have a “? on black background” run the fix.

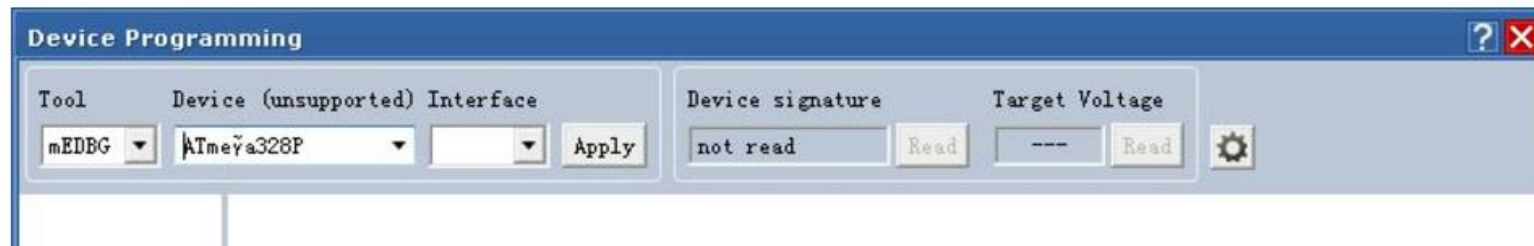
■ Bug Fix

- The bug fix can be found here: https://spaces.atmel.com/gf/project/avr_xp_mini/frs/
- Download the zipped folder called [Change_serial_number.zip](#) and follow the instructions given in [How_to_change_serial_Number.pdf](#)

Seeing ATmeÿa328P instead of ATmea328P

■ Symptoms

- Start Atmel Studio and go to Tools – Device programming. Under device tab, if you see something like “ATmeÿa328P” instead of “ATmega328P”, most likely the EEPROM of ATmega32U4 on your board is corrupted.



■ Bug Fix

- The fix is to reprogram the EEPROM of the ATmega32U4 using the JTAG interface.
- The HEX file to program the EEPROM: [EEPROM 32U4 00 mega328P rev4.hex](#)
- Details for this bug fix can be found here: <http://www.avrfreaks.net/forum/problem-serialnumberbugfix-atmega328p-xplained-mini-kit>

Unable to connect to Atmel Studio

- Symptoms

- Upon connecting the Xplained Mini board to your computer, if it is not detected by Atmel Studio, and it is seen as “ATmega32U4” in the device manager, this could be because the EEPROM of ATmega32U4 is corrupted.

- Bug Fix

- Please follow the guidelines provided in “ATmega328P_Not_Detected.pdf”