https://forum.arduino.cc/index.php?topic=256771.60

https://www.arduino.cc/en/Hacking/Upgrading16U2Due

https://www.arduino.cc/en/Tutorial/ArduinoISP

Hi all,

I have the same problem since the beginning, and this is bugging me big time for my projects. I think I have identified a definite solution. In fact credit is due to the guys of Freetronics about the EtherDue. See link:

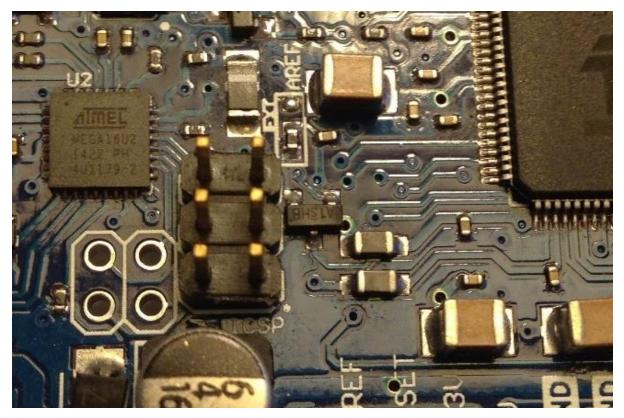
http://forum.freetronics.com/viewtopic.php?f=45&t=6055

The DUE boards may be affected by the following bug: On power-on the board may start to the bootloader instead of running the onboard program, as if the ERASE button had been pressed. Pressing "reset" resumes normal operation. The bug appears to be caused by undocumented behavior in the ATSAM3X8E microcontroller regarding the "erase" input pin - according to the specification we shouldn't ever be seeing this.

The fix is to solder a surface mount resistor (0603 size) onto the board: solder a 10k resistor between the ERASE line and +3.3V, close to fet T3. In practice, solder it across the 2 upper pins of T3.

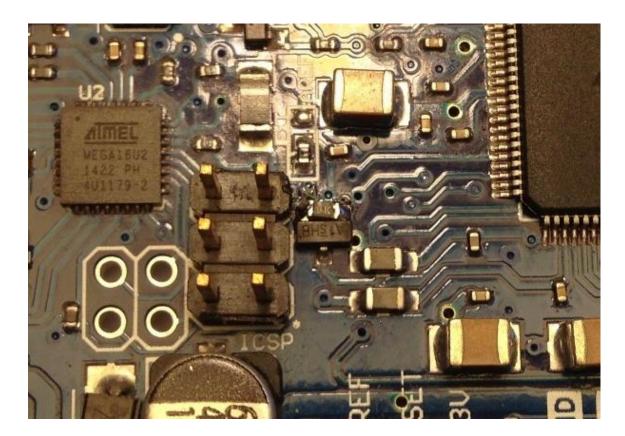
To know if you have a DUE (or derivate/clone) that may be affected, check if fet T3 is soldered horizontally - see picture below:

(fet T3 is in the middle of the picture, just to the right of the 6-pin SPI connector)



(If your DUE has the fet soldered vertically, likely the board is more recent and good, as it has resistor R99 soldered.)

Here is a picture of a fixed DUE with a 10k resistor that I soldered across the pins of T3:



I have tested this and works fine.

