# Lab 1. Getting Started with STM32 microcontrollers and Atollic True Studio

**Requirements:** STM32 Nucleo64 Board: NUCLEO-L476RG; USB Mini B cable; Atollic True Studio

**Introduction:** Atollic True Studio is a specially targeted version of the Eclipse programming and debugging environment originally developed to support many ARM Cortex microcontrollers but now supporting the ST microelectronics implementations of the ARM Cortex processor family, which with different on-chip peripheral devices make up the STM32 microcontroller family.

In this lab, we will use the Atollic TrueStudio environment to compile, link and download a ‘blink’ program to an STM32 Nucleo64 board. A ‘blink’ program is the embedded system equivalent of ‘hello world’ and we will use it to become familiar with the tools used for this module.

All the tutorial documents referred to in this Lab sheet are available on Sulis, in the same directory.

Lab Procedure:

1. If the Atollic IDE has not been downloaded to your computer, please download and install it. You can find the latest version of the software at the following link: <https://atollic.com/resources/download/> - download the Windows version. A step-by-step guide is given in the tutorial file ‘Doc 1 Downloading Atollic True Studio for STM32’. You can find a step-by-step installation guide in the tutorial document ‘Doc 2 Installing Atollic True Studio for STM32’. Be sure to follow all the steps in the tutorial.
2. In these labs, we use the STM32CubeMX to program and configure the STM32 devices in our projects. This may be already integrated in your version of Atollic, but if it not, please follow the steps in the following tutorial documents:
   * ‘Doc 3 Creating an ST Account for Downloading STM32CubeMX’
   * ‘Doc 4 Downloading STM32CubeMX and Atollic plugin software’
   * ‘Doc 5 Installing STM32CubeMX on your computer’
   * ‘Doc 6 Installing STM32Cube plugin for Atollic’
3. Next create, compile and run the STM32 Blink program, as in ‘Doc 7 Creating the LED blink project using Atollic and STMCubeMX’.