

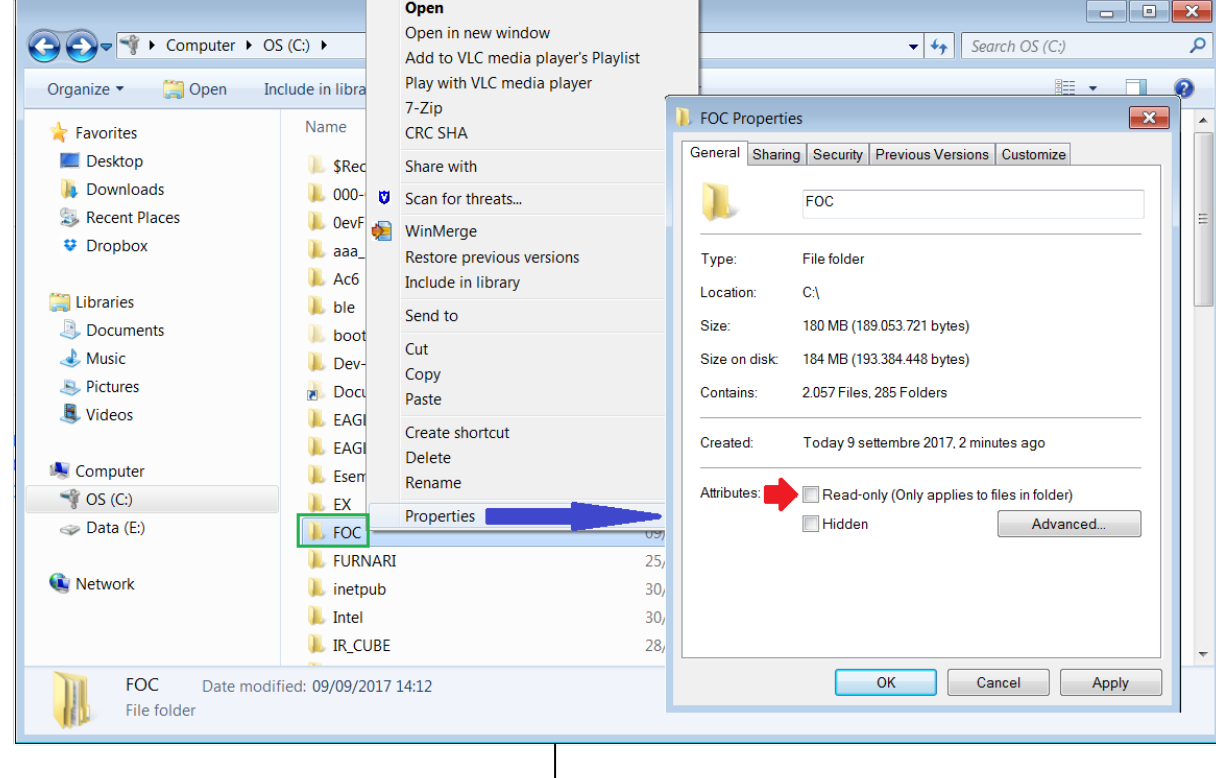
How to use the Motor Control Workbench and: P-NUCLEO-HM002

We prepare the SW and our Work Directory

Install: STSW-STM32100

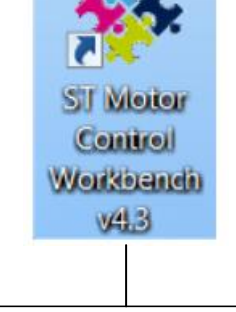
After the installation copy the contents of the directory:
C:\Program Files (x86)\STMicroelectronics\FOC SDK
in a new directory, for example:
C:\FOC

Now click, with the right mouse button, on the C:\FOC directory and from the menu that appears choose: **PROPERTIES**
From the new window that appears remove, if is present, the: **Read-Only protection**
press the: **OK**.
See the image below.



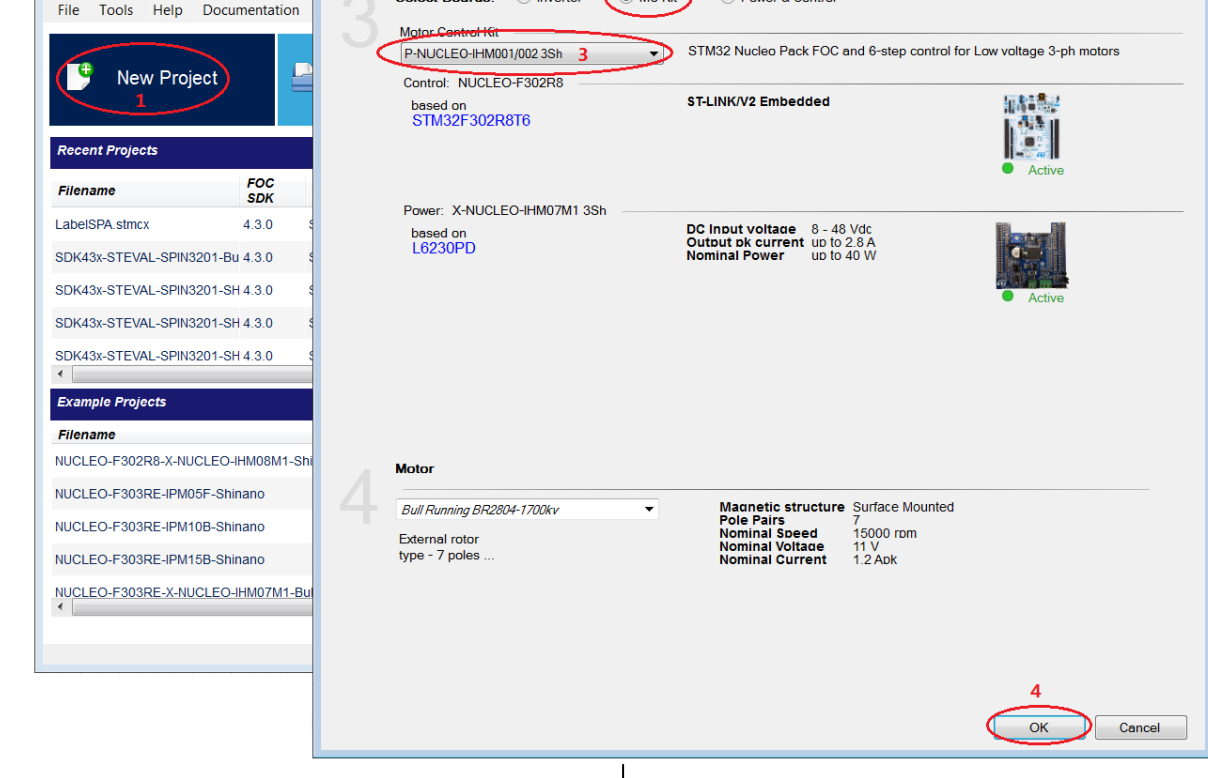
Start to develop the first motor control

Run the FOC sw (see below)



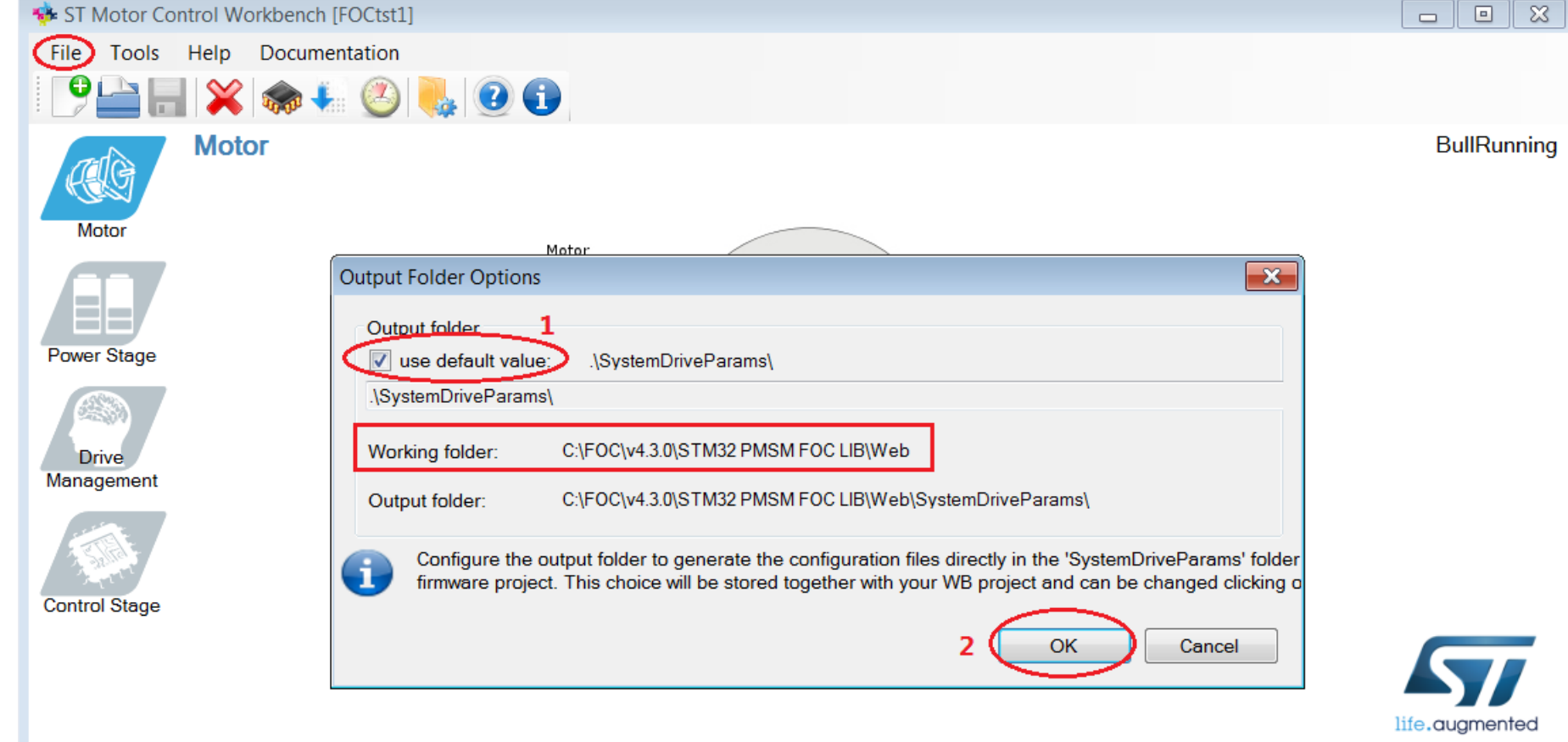
From the Motor Control Workbench choose: **NEW PROJECT**

From the page that appear choose:
MC KIT
and
P-NUCLEO-HM001/002 35h
Net project: **OK**
See below

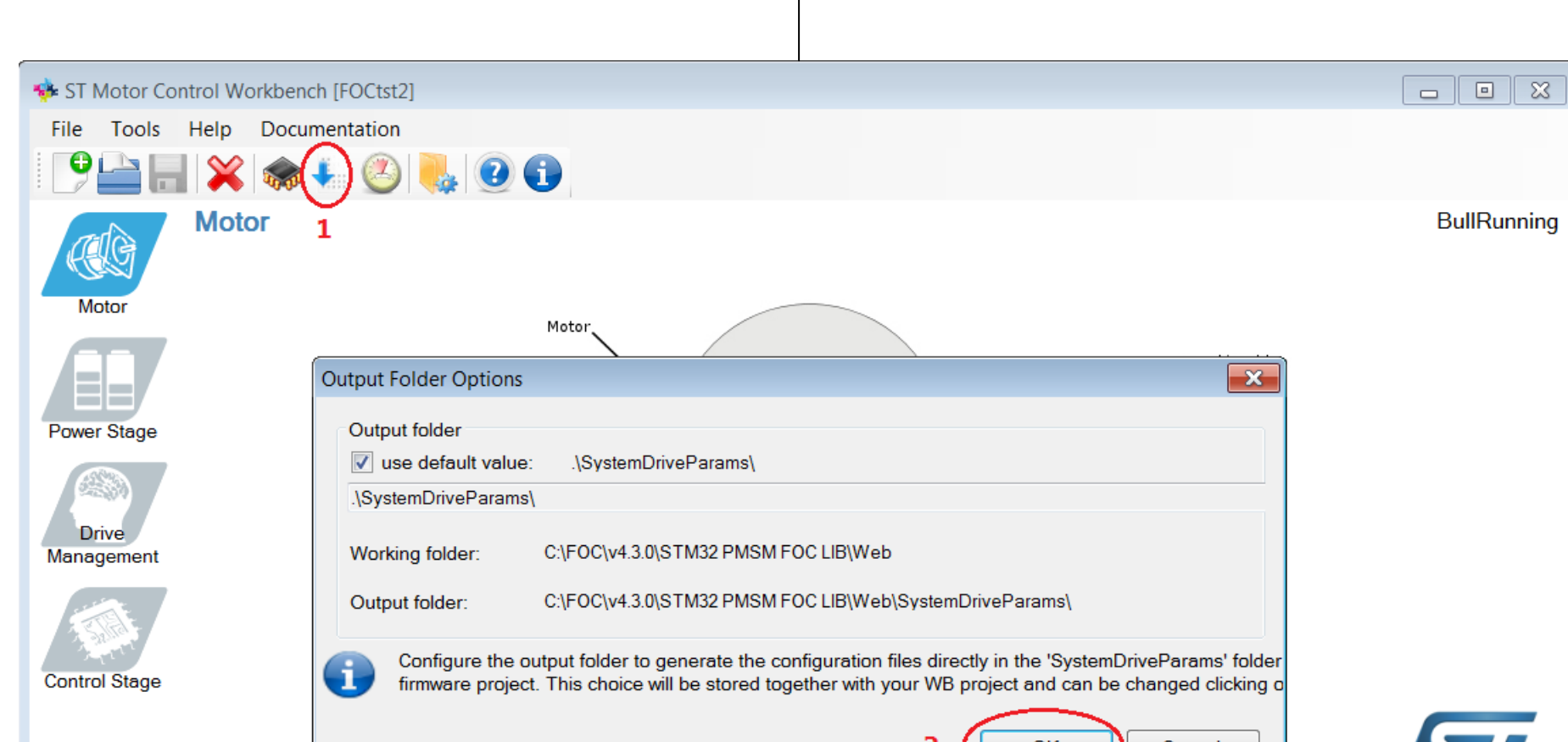


Since we've uploaded a project already prepared by STM, now you only need to save the setup, generate the project and compile it with your preferred environment (KEIL, IAR, AC6). In this tutorial we will use **KEIL**.

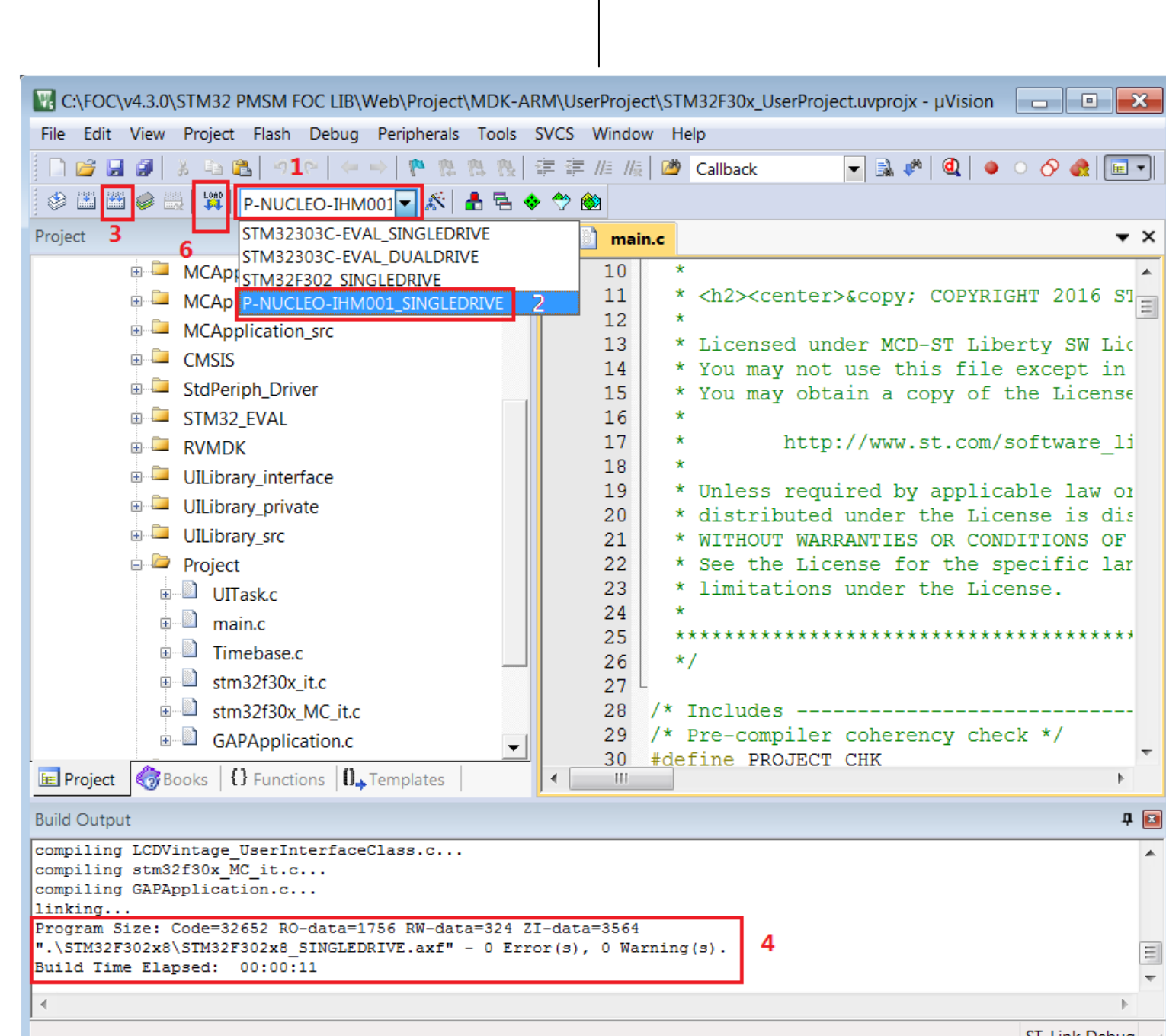
Open:
File > Save Project As
And save in the directory:
C:\FOC\4.3.0\STM32 PMSM FOC LIB\Web
See below, step 1 and 2



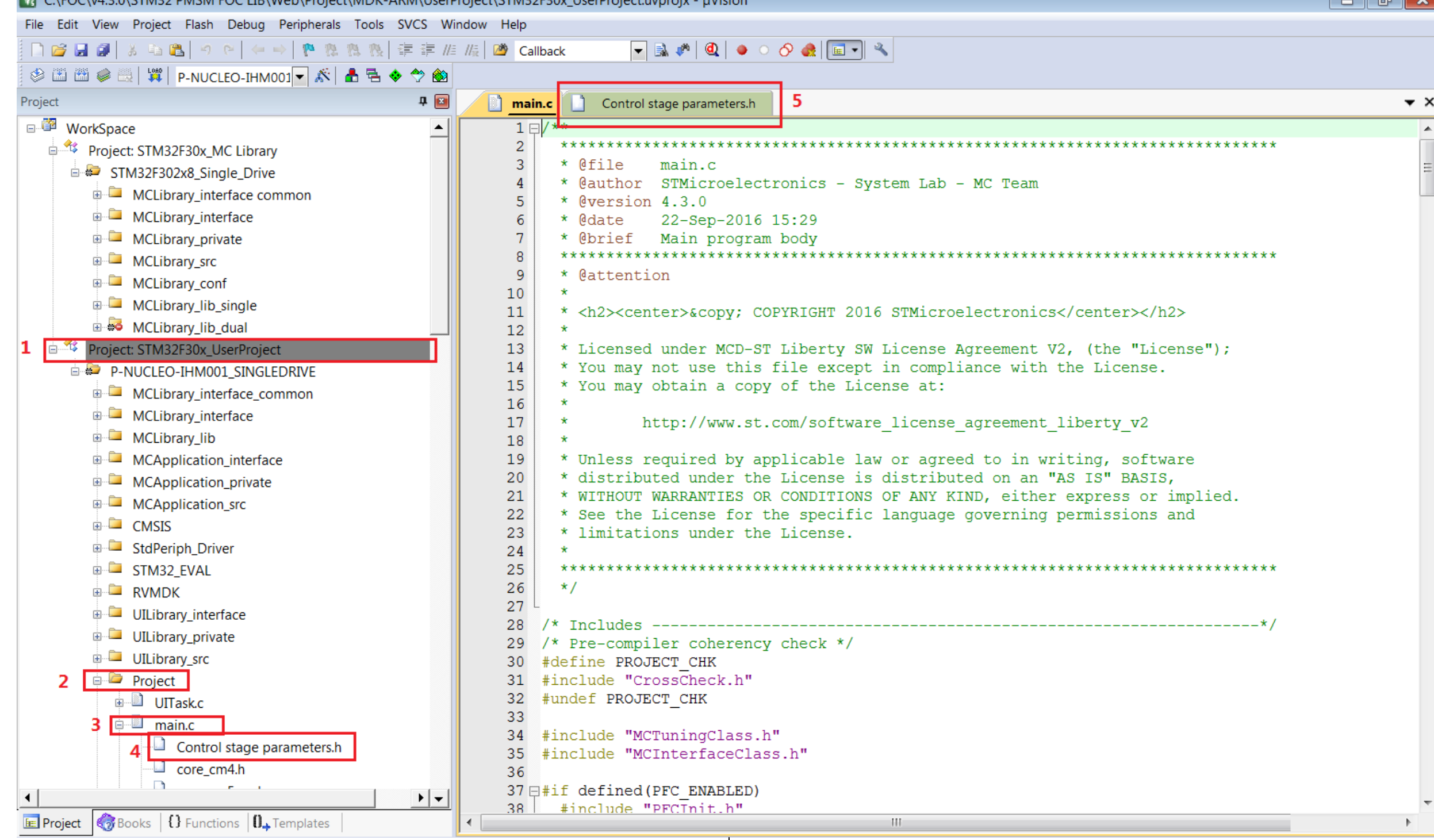
Now generate the project by pressing the **BLUE arrow**, and press **OK**.
See below.



Now is necessary compile the project generated.
More info are present in the UM3052 in chapter n.9
Go in the directory:
C:\FOC\4.3.0\STM32 PMSM FOC LIB\Web\Project\MDK-ARM
and double click on the file:
STM32F30x_Workspace.uvmpw
Compile and download the FW on the P-NUCLEO-HM002

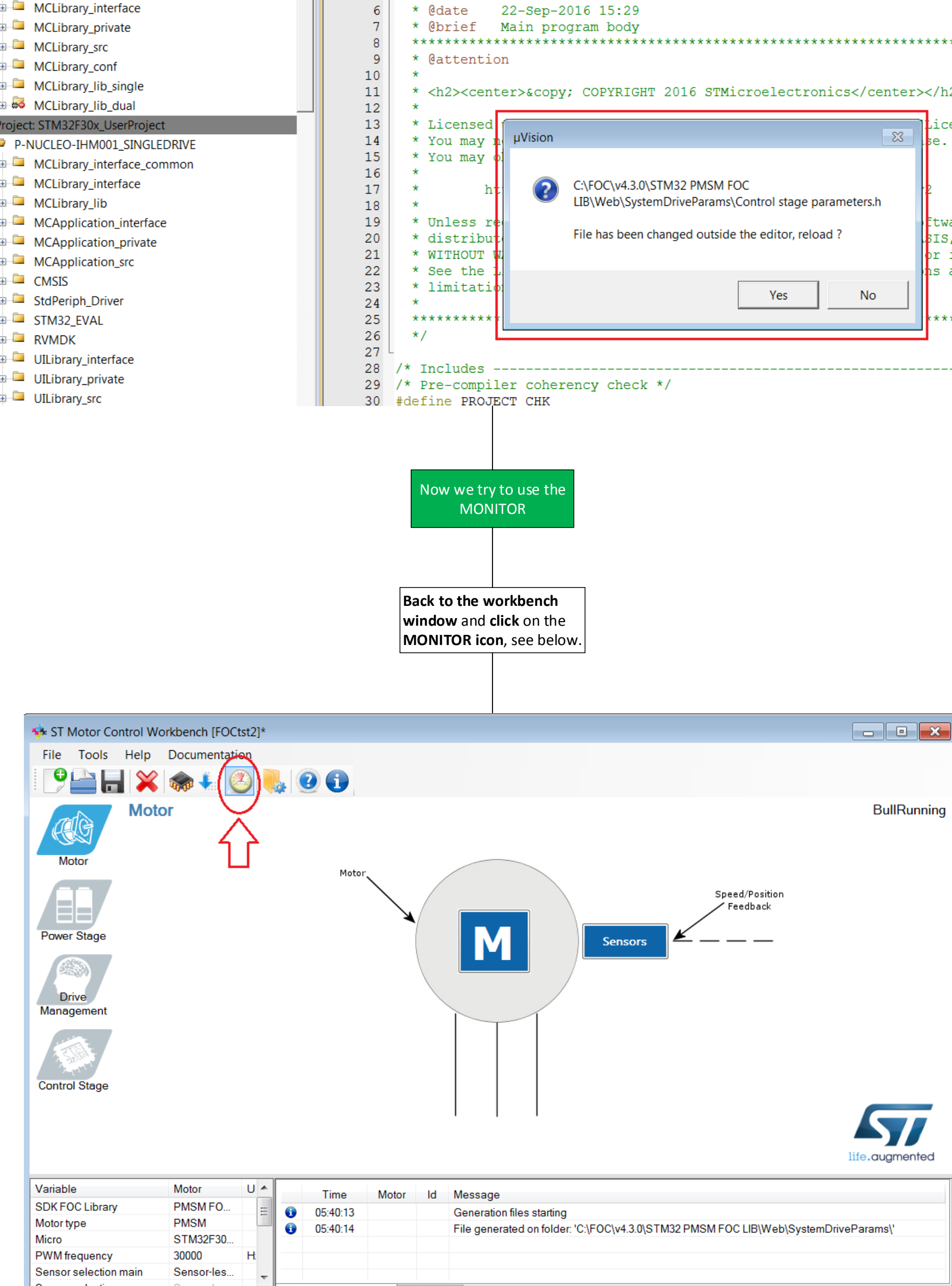


For understand if you have setup your environment correctly do this, in KEIL open the file:
Control stage parameters.h
Do some change in the **motor control workbench**, regenerate the project (blue arrow)
Back to KEIL environment and you must see a window that tell you that is necessary reload the file:
Control stage parameters.h
This means that your setup is OK.
See below.

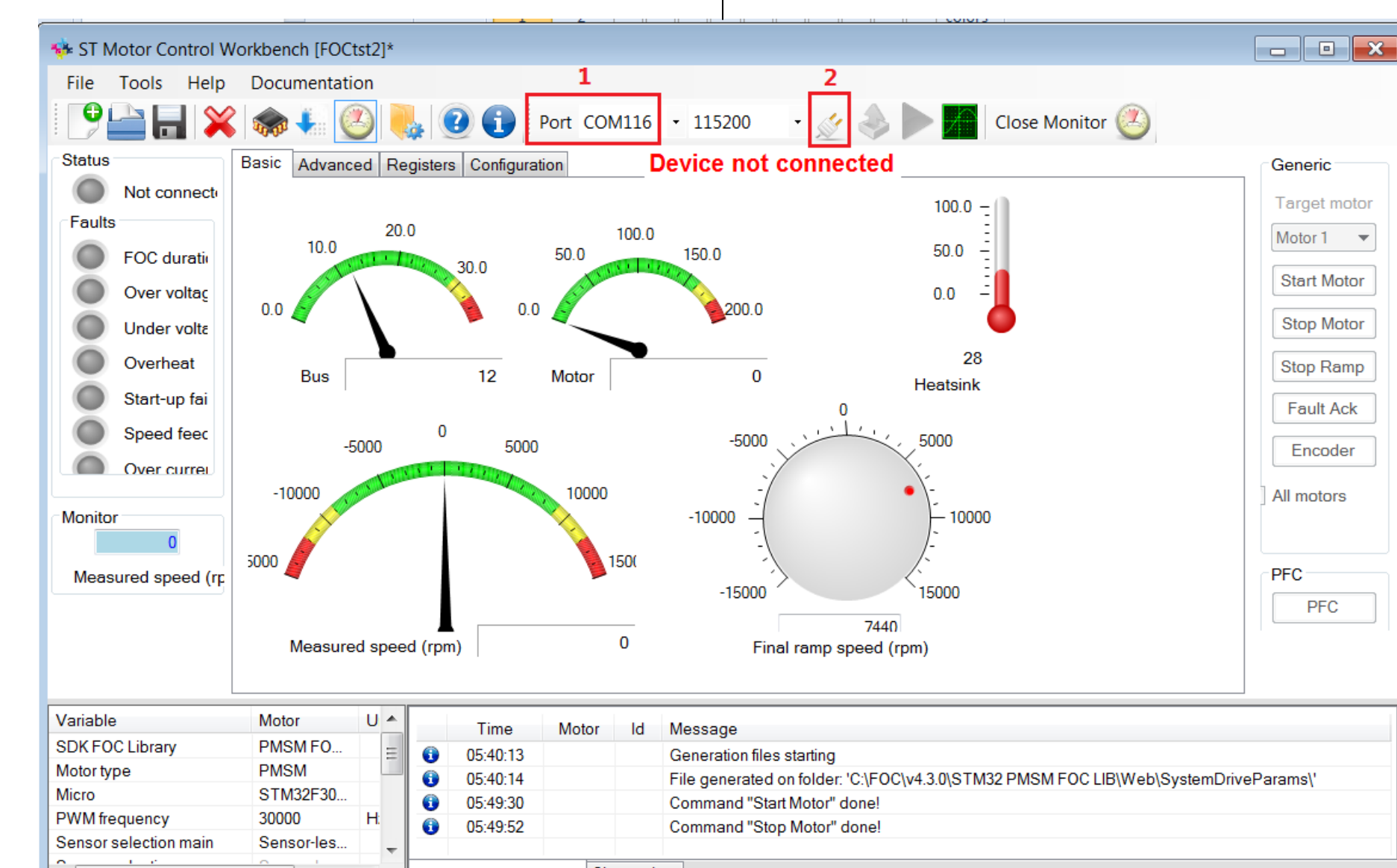


Now we try to use the **MONITOR**

Back to the workbench window and click on the **MONITOR** icon, see below.



Now select the **COM-PORT** and click on the **CONNECT** icon.
See below, **step1** and **step2**.



Now try to use the commands in the red box, see below.

