

## README: Information on the default template

The LabsLand lab for STM32 in its online IDE version uses a default template so that users do not need to generate it themselves with STM32CubeMX, and so that the template is directly compatible with the hardware configuration.

You can download this template at:

[https://labsland.com/pub/docs/experiments/stm32/stm32\\_template\\_interruptions.zip](https://labsland.com/pub/docs/experiments/stm32/stm32_template_interruptions.zip)

(And it is also available within the laboratory).

If you want to modify the template and use a differently configured initial project, you can use the alternative version of the lab without an online IDE, which accepts a compiled binary file as input.

### **Note regarding modifications to the generated template**

The main.c file generated by STM32CubeMX has been modified. The purpose of these modifications is to be able to use the RGB LED with PWM and as a normal GPIO. At the beginning of the main.c file you can see a line `#define RGB_GPIO` that has a comment to its right that indicates that if this line is commented, the RGB LED will be used with PWM, and if it is uncommented, it will be used as a traditional GPIO. Commenting or uncommenting this line enables or disables a series of functions through commands such as `#ifdef`, `#else` and `#endif`. Thus, when you want to use the timer that enables the PWM of the RGB LED or the RGB LED as a GPIO, you can use this programming method to solve this problem.

### **Note about STM32CubeMX project file**

The STM32CubeMX project file is available in the archive. It is the IOC terminated file. Remember that due to previous modifications to the original template once generated, if you re-generate the template using STM32CubeMX, those changes will disappear.

It is therefore recommended to configure STM32CubeMX properly before generating it, taking this into account. Normally this will not be a problem, as users who are generating their own template will usually be clear from the start how they want to use the outputs, and will not need to be able to change it on the fly with `"#defines"`.