

SEKOLAH KEJURUTERAAN ELEKTRIK
UNIVERSITI TEKNOLOGI MALAYSIA (UTM)

MKEL 1123

Milestone 1 (Title: Blinky Project)

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Group Members:

1. Nurul Sabrina Razali (MKE201073)
2. Tan Jou Pei (MKE201064)
3. Tian Linxue (MKE211007)

Title: Blinky application on Nucleo-64 board

Abstract: This report will show the working steps on how to make the blinking LED.

Methodology:

A) Create new project using STM32CubeIDE

1. First, connect the Nucleo-64 board to the laptop using USB cable.
2. Next, open the STM32cubeIDE software.
3. Click on the new project and choose on Board Selector.
4. Select the Nucleo-F446RE board, and, click Next.
5. The popup message will show whether you wish to initiate all peripherals with their default mode. Click on yes and continue.

B) Next, In the Pinout & Configuration settings and generate source code.

1. Verify in Pinout tab, under SYS Peripheral, Serial wire is selected as debug interface.
2. Next, Ensure the LD2 green LED to pin PA5 as GPIO_Output
3. Use the default clock configuration setting.
4. After checked all of the other settings, Click Save and answer yes for generate the code.

C) Build blinky app

1. After source code generated successfully, the system will update the code.
2. Go to main.c under Src folder to insert the code in the while loop that is specifically for User Code.
3. Insert the coding as below in the following while loop: <i>HAL_GPIO_TogglePin(GPIOA, GPIO_PIN_5);</i> <i>HAL_Delay (1000);</i>
4. Compile the code and click run (debug as STM32). Then, observe the Blinking on the Nucleo-64 board (at LD2 LED).