Operational Instruction: Blinky App

1. Connect the nucleo-board to the PC via a microUSB cable, the cable will transmit power to the board and data back and forth between the board and the PC.

2. To interface with the board STM32cubeIDE was used, it was downloaded from https://www.st.com/en/development-tools/stm32cubeide.html.

3. After the software was install on the board a new project was made via File-New-STM32 project.

4. The board that was used was then selected via the project setting; the board used was the Nucleo-F446ZE.

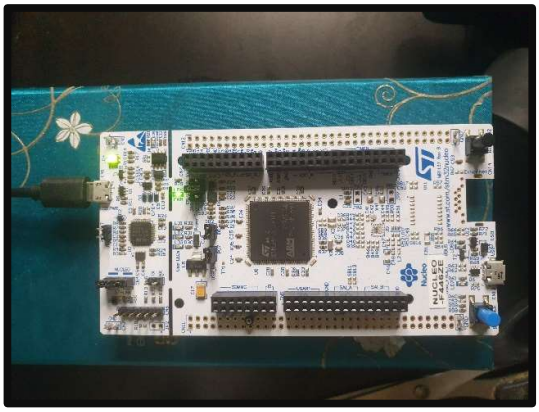

Figure 1 : Nucleo-F446ZE Board

5. To insert the code line the main.c file was open and edited, to ensure the LED blink for a period of 500ms the following line of code was added under the infinite while loop. To control LED 1, GPIO port B pin 0 was toggled as per the data sheet.

```
  while (1)
  {
      HAL_GPIO_TogglePin(GPIOB, GPIO_PIN_0); /*Set GPIO LED Pin1 to Toggle*/
      HAL_Delay(500);/*delay for 500 millesecond*/

    /* USER CODE END WHILE */

    /* USER CODE BEGIN 3 */
  }
  /* USER CODE END 3 */
}
```

Figure 2 : Code Snippet for Blinky App

6. The code was then saved and the built was constructed via project-build project

7. When no error is detected, the project was run, and the code will be uploaded onto the board.

Github link : https://github.com/ferozkhn/advancedMicroprocessorAssignment.git