PROJECT TITLE:

WIPER CONTROL SYSTEM

ABSTRACT:

A case study of a wiper system in vehicles is considered. The case study is implemented using STM32F407G, a microcontroller featuring Arm-Cortex-M4 with an FPU core. The analogy of the microcontroller with the case study is taken as Since the microcontroller has one push-button and three LEDs, the ignition key is considered a push button and the LEDs are considered as Wipers. On press of the user input, Blue, Green and Orange LEDs come ON one at a time with the set frequency, The frequency changes on every alternate keypress, and here 3 frequency levels are considered herein., 1, 4 and 8 Hz. The LED glow pattern stops on the 4th press, the wiper action starts on the next press. The ignition key position is considered at lock if the push button is held for 2 seconds. Thus, a wiper control system is built.

IMPLEMENTATION AND OUTPUT:

The above constraints are implemented with STM32CubeIDE with necessary toolchains and packages installed. Partial output was derived. Only one led glowed (Green).