

SWEN-340 Final Project

UART LED Project

Feb 20, 2022

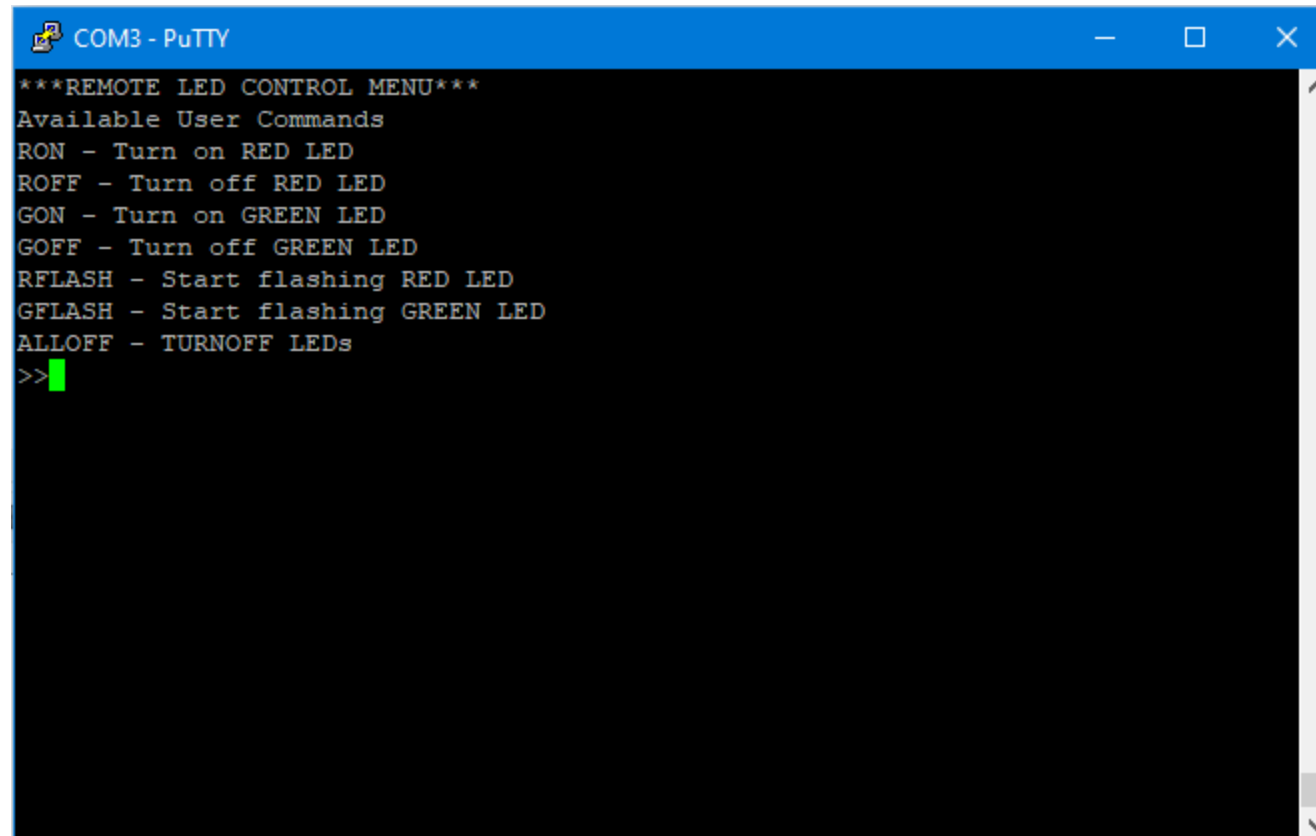


High Level Requirements

- **Allow a user to control LEDs from Putty /Screen terminal window**
 - Without flipping any switches on the board itself

Detailed Design/Requirements

- UI shall prompt the following at the start of the operation



```
COM3 - PuTTY
***REMOTE LED CONTROL MENU***
Available User Commands
RON - Turn on RED LED
ROFF - Turn off RED LED
GON - Turn on GREEN LED
GOFF - Turn off GREEN LED
RFLASH - Start flashing RED LED
GFLASH - Start flashing GREEN LED
ALLOFF - TURN OFF LEDs
>>
```

Detailed Design/Requirements

- User shall be able to type following commands:
 - **HELP**
 - Prompts messages on Slide # 3 (which commands are available)
 - **RON**
 - Turn on red LED - regardless of its current state
 - does nothing if LED is already on
 - **ROFF**
 - Turn off red LED - regardless of its current state
 - does nothing if LED already off
 - **GON**
 - Turn on Green LED - regardless of its current state
 - does nothing if LED is already on
 - **GOFF**
 - Turn off Green LED - regardless of its current state
 - does nothing if LED already off
 - **RFLASH**
 - Start flashing RED LED (one second on, one second off), regardless of its current state (On or off)
 - This does nothing if LED is already flashing.
 - **GFLASH**
 - Start flashing GREEN LED (one second on, one second off), regardless of its current state (On or off)
 - This does nothing if LED is already flashing.
 - **ALLOFF**
 - Stop all flashing both LEDs
 - Turn off LEDs, do not leave them ON

Project Demonstration & Grading

- See Grading sheet for details