

SWEN-340 Project

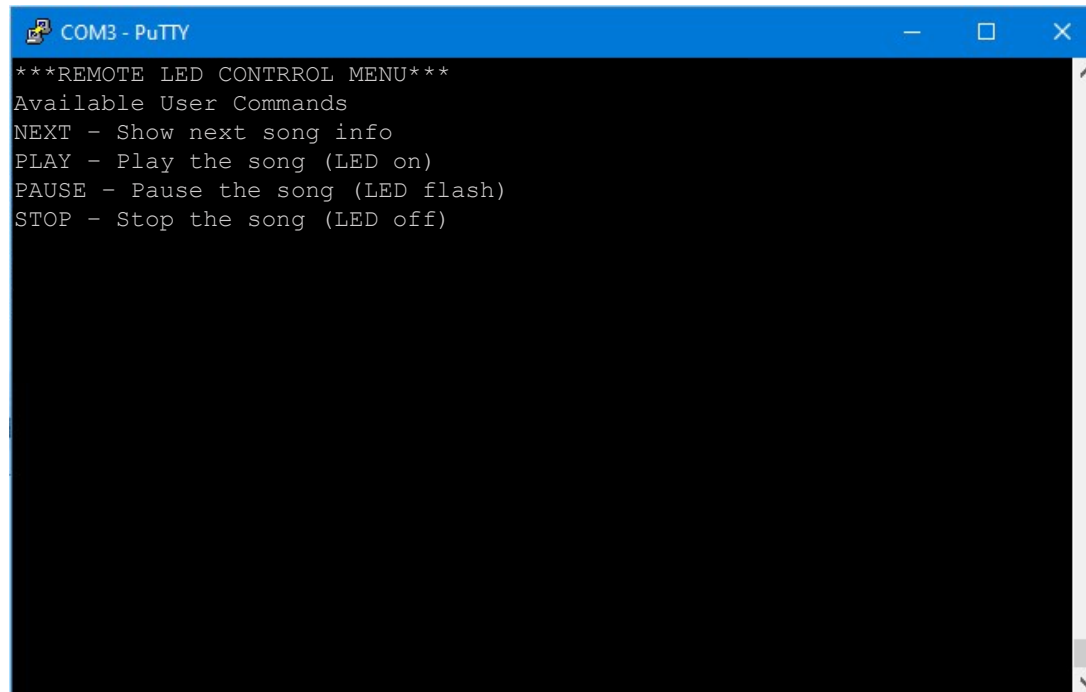
MIDI Project

High Level Requirements

- **Design user interface for a song playback system**
 - Next – Displays the next songs information
 - Play – Turns the play light on
 - Pause – Makes the play light flash (1 second interval)
 - Stop – Turns the play light off
- **Notes:**
 - When the program is first started, next should show the information for the first song in the song list.
 - You can use any command at any time. I.E. If a song is playing, you can still use next to cycle through other songs.
 - Nothing will actually play, the only thing you are required to do for this activity is display the information and manage the LED.

Detailed Design/Requirements

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



```
COM3 - PuTTY
***REMOTE LED CONTRROL MENU***
Available User Commands
NEXT - Show next song info
PLAY - Play the song (LED on)
PAUSE - Pause the song (LED flash)
STOP - Stop the song (LED off)
```

The image shows a screenshot of a PuTTY terminal window titled "COM3 - PuTTY". The window has a blue title bar with standard Windows window controls (minimize, maximize, close). The terminal area has a black background with white text. The text displayed is a menu for a remote LED control system. It starts with a header line "***REMOTE LED CONTRROL MENU***" (note the typo in the original image). Below this is the text "Available User Commands". Then, four commands are listed, each on a new line: "NEXT - Show next song info", "PLAY - Play the song (LED on)", "PAUSE - Pause the song (LED flash)", and "STOP - Stop the song (LED off)". A vertical scrollbar is visible on the right side of the terminal window.

Detailed Design/Requirements

- User shall be able to type following commands:
 - **HELP**
 - Prompts messages on Slide # 3 (which commands are available)
 - **NEXT**
 - Displays song info (see MIDI documentation):
 - Song title (FF 03)
 - Copyright (FF 02)
 - Tempo (FF 51) – this can be displayed as a 6-digit number
 - **PLAY**
 - Turn LED on
 - Does nothing if LED already on
 - **PAUSE**
 - Start LED flashing
 - This does nothing if LED is already flashing.
 - **STOP**
 - Turn off LED - regardless of its current state
 - Does nothing if LED already off

Project Demonstration & Grading

- See Grading sheet for details