**Grove Display Library**

Description:

* The Grove Display Library facilitates interfacing with LCD displays using I2C communication on the PIC24FJ64GA002, offering functions for initialization, setting the cursor position, printing individual characters, and displaying strings. An example usage demonstrates how to initialize the display, set the cursor position, and print a string onto the LCD display.

Dependencies:

* **xc.h**: Standard C library for PIC microcontrollers.
* **I2C\_LCD\_Library.h**: Library for handling I2C communication with the LCD display.

Functions:

1. **void lcd\_init(void)**
   * Description: Initializes the LCD display by setting up the communication protocol and sending initialization commands
2. **void setCursor(char x, char y)**
   * Arguments:
     + **x**: Row index (0 or 1).
     + **y**: Column index (0 to 7).
   * Description: Sets the cursor position on the LCD display.
3. **void print (char package)**
   * Arguments:
     + **package**: Character to be printed on the LCD display using the ASCI table
   * Description: Prints a single character on the LCD display at the current cursor position.
4. **void lcdPrintString(char package[8])**
   * Arguments:
     + **package[]**: Null-terminated string to be printed on the LCD display.
   * Description: Prints a string on the LCD display starting from the current cursor position. Note: The string should not exceed 8 characters.Top of Form

**Example Code:**

Prints the string ‘Hello’ to the grove display

|  |
| --- |
| int main(int argc, char\*\* argv) {      setup();  //PIC-24 initial setup      lcdInit(); //LCD initial Setup      lcdSetCursor(0,0); //Sets the cursor at row 0 collumn 0      lcdPrintString("Hello");  //Prints the string Hello to the Display      while(1) {        }  } |