Bonezegei HD44780: Arduino Library for 16x2 LCD 4-Bit Mode

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Abstract

Bonezegei HD44780 is an Arduino library that allows users to control 16x2 LCD displays in 4-bit mode. The library provides functions for initializing, clearing and printing text. The library is compatible with Arduino Uno, Nano, Mega, and other boards that use the HD44780 controller. The library is easy to use and requires only four data pins and two control pins to interface with the LCD. The library also supports multiple LCDs on the same Arduino board using different pin configurations. Follow the installation steps at https://bonezegei.com on how to install bonezegei libraries on Arduino IDE (Batutay, 2023).

1. Hello World

```
/*
  4-bit mode Hello World Example
  Author: Bonezegei (Jofel Batutay)
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*/

#include <Bonezegei_HD44780.h>

/*
  param1 = RS
  param2 = EN
  param3 = D4
  param3 = D5
  param3 = D6
  param3 = D7
*/
Bonezegei_HD44780 lcd(9, 8, 4, 5, 6, 7);

void setup() {
  lcd.begin();
  lcd.print("Bonezegei");
  lcd.setPosition(0, 1);      //param1 = X   param2 = Y
  lcd.print("HD44780");
  delay(2000);
  lcd.setPosition(0, 0);
  lcd.print("Hello World");
}

void loop() {
  lcd.setPosition(0, 1);
  String str = "ms:";
  str += millis();
  lcd.print(str.c_str());
  delay(100);
}
```

References

Batutay, Jofel. (2023). Library Installation on Arduino IDE. Bonezegei. https://bonezegei.com/?c=resources/tutorial&&d=resources/tutorial/libraries/install&&nav=1