1.8" Serial SPI 128x160 Color TFT LCD Module Display

TFT LCD Screens (Thin-film-transistor liquid crystal display) are great graphical displays to display information. They are a variant of a liquid crystal display (LCD) which uses TFT technology to improve image qualities such as addressability and contrast. They are used often in video games, smart phones, cell phones, and sometimes even TV's. Now, with the technology and accessibility today, you can use one with your Arduino!

Features



- Size: 1.8 inch
- Dot Matrix: 128*160
- Size: 54mm(length)*34mm(width)
- Input Voltage: 5V/3.3V
- Driver IC: S6D02A1 / ST7735
- Pin Definition: 1-RST 2-CE 3-D/C 4-DIN 5-CLK 6-UCC 7-BL 8-GND
- It has PCB backplane with power IC, SD card socket
- It need 4 IO port at least to drive.



Pinouts of the TFT are shown in the picture above. Connect the TFT pin to Arduino as shown in the table below. also connect 1K Ω resistors to all the data lines of TFT pins 1, 2, 3, 4, 5. I have also connected a 100 Ω resistor between pin 7. BL and +5V.

TFT		UNO
5. Clk	>1KΩ>	13
4. DIN	>1KΩ>	11
3. D/C	>1KΩ>	9
2. CE	>1KΩ>	10
1. RST	>1KΩ>	8
6. VCC		+5V
7. BL	>100Ω>	+5V
8. GND		GND

The full setup is shown in picture below.



Software Setup:

Open the Arduino IDE and from Menu "Manage libraries " Install the "Ucglib by oliver" library.

Library Manager			X
Type Installed 🗸	Topic All	Filter your search	
Ucglib by oliver Version 1.3.3 A library for true color TFTs an ILI9163, SSD1331, SEPS225. F More info	INSTALLED ad OLEDs Supported dis eatures: 18 Bit color de	aplay controller: ST7735, ILI9341, PCF8833, SSD1351, LD50T6160, epth, many fonts.	
Select version	tall		
WiFi Built-In by Arduino Versio Enables network connection (I can instantiate Servers, Clients networks (WEP, WPA). The IP More info	on 1.2.4 INSTALLED ocal and Internet) usin s and send/receive UDP address can be assigne	ng the Arduino WiFi shield. For all Arduino boards. With this library you packets through WiFi. The shield can connect either to open or encrypted ad statically or through a DHCP. The library can also manage DNS.	
Wire Built-In by Arduino Versi Allows the communication bet	on 1.0.0 INSTALLED	rs connected via Two Wire Interface Bus. For all Arduino boards. BUT	
Arduino DUE. More info			
		Clos	e

Now upload the following code to Arduino.

Arduino Code:

```
#include <SPI.h>
#include "Ucglib.h"
Ucglib_ST7735_18x128x160_HWSPI ucg(/*cd=*/ 9 , /*cs=*/ 10, /*reset=*/ 8);
void setup(void)
{
 delay(1000);
 ucg.begin(UCG_FONT_MODE_TRANSPARENT);
 ucg.clearScreen();
}
void loop(void)
{
 ucg.setFont(ucg_font_ncenR12_tr);
 ucg.setColor(255, 0, 0);
 ucg.setPrintPos(10,25);
 ucg.print("Hello World!");
 ucg.setColor(0, 0, 255);
 ucg.setPrintPos(50,60);
 ucg.print("By");
 ucg.setColor(20, 255, 20);
 ucg.setPrintPos(10,100);
 ucg.print("ALICTRONIX");
 delay(500);
}
```



