

```
#include "Adafruit_GFX.h" // Core graphics library
#include "Adafruit_ST7735.h" // Hardware-specific library for ST7735
#include "SPI.h" // spi library
```

```
#define clk 13 // SPI
#define sda 11
#define cs 10 // control
#define rs 9
#define rst 8
```

```
#define BLACK 0x0000
#define BLUE 0x001F
#define RED 0xF800
#define GREEN 0x07E0
#define CYAN 0x07FF
#define MAGENTA 0xF81F
#define YELLOW 0xFFE0
#define WHITE 0xFFFF
```

```
Adafruit_ST7735 tft = Adafruit_ST7735(TFT_CS, TFT_DC, TFT_RST);
```

```
/*
COLORS
ST7735_BLACK
ST7735_RED
ST7735_GREEN
ST7735_BLUE
ST7735_WHITE
*/
```

INIT

```
tft.initR(INITR_BLACKTAB); // initialize a ST7735S chip, black tab
tft.fillScreen(ST77XX_BLACK);
```

FUNCTIONS

```
void setRotation(uint8_t rotation);void setCursor(uint16_t x0,
uint16_t y0);
void setTextColor(uint16_t color);
void setTextColor(uint16_t color, uint16_t backgroundcolor);
void setTextSize(uint8_t size);
void setTextWrap(boolean w);
void print(char *m);
void drawChar(uint16_t x, uint16_t y, char c, uint16_t color,
uint16_t bg, uint8_t size);
void drawPixel(uint16_t x, uint16_t y, uint16_t color);
void drawLine(uint16_t x0, uint16_t y0, uint16_t x1, uint16_t y1,
uint16_t color);
void drawRect(uint16_t x0, uint16_t y0, uint16_t w, uint16_t h,
```

```
uint16_t color);  
void fillRect(uint16_t x0, uint16_t y0, uint16_t w, uint16_t h,  
uint16_t color);  
tft.getTextBounds(string, x, y, &x1, &y1, &w, &h);
```

FONTS (Std font built-in

```
FreeMono12pt7b.h          FreeSansBoldOblique12pt7b.h  
FreeMono18pt7b.h          FreeSansBoldOblique18pt7b.h  
FreeMono24pt7b.h          FreeSansBoldOblique24pt7b.h  
FreeMono9pt7b.h           FreeSansBoldOblique9pt7b.h  
FreeMonoBold12pt7b.h      FreeSansOblique12pt7b.h  
FreeMonoBold18pt7b.h      FreeSansOblique18pt7b.h  
FreeMonoBold24pt7b.h      FreeSansOblique24pt7b.h  
FreeMonoBold9pt7b.h       FreeSansOblique9pt7b.h  
FreeMonoBoldOblique12pt7b.h FreeSerif12pt7b.h  
FreeMonoBoldOblique18pt7b.h FreeSerif18pt7b.h  
FreeMonoBoldOblique24pt7b.h FreeSerif24pt7b.h  
FreeMonoBoldOblique9pt7b.h FreeSerif9pt7b.h  
FreeMonoOblique12pt7b.h   FreeSerifBold12pt7b.h  
FreeMonoOblique18pt7b.h   FreeSerifBold18pt7b.h  
FreeMonoOblique24pt7b.h   FreeSerifBold24pt7b.h  
FreeMonoOblique9pt7b.h    FreeSerifBold9pt7b.h  
FreeSans12pt7b.h          FreeSerifBoldItalic12pt7b.h  
FreeSans18pt7b.h          FreeSerifBoldItalic18pt7b.h  
FreeSans24pt7b.h          FreeSerifBoldItalic24pt7b.h  
FreeSans9pt7b.h           FreeSerifBoldItalic9pt7b.h  
FreeSansBold12pt7b.h      FreeSerifItalic12pt7b.h  
FreeSansBold18pt7b.h      FreeSerifItalic18pt7b.h  
FreeSansBold24pt7b.h      FreeSerifItalic24pt7b.h  
FreeSansBold9pt7b.h       FreeSerifItalic9pt7b.h
```

```
tft.setFont(&FreeMonoBoldOblique12pt7b);  
tft.setFont(); // back to std fixed font
```