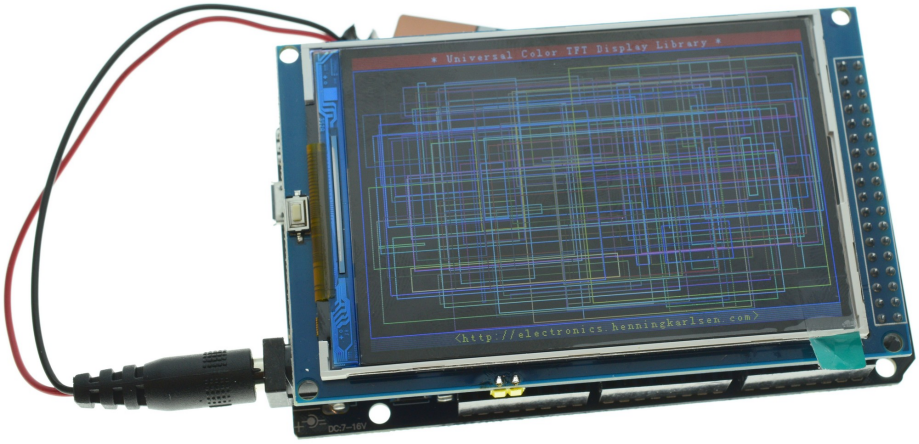
MAR3513 UTFT Demo 480x320

Copy libraries

Execute demo




```
UTFT myGLCD(ILI9486,38,39,40,41);
```

```
// UTFT_Demo_480x320 (C)2014 Henning Karlsen
// web: http://www.henningkarlsen.com/electronics
//
// This program is a demo of how to use most of the functions
// of the library with a supported display modules.
//
// This demo was made for modules with a screen resolution
// of 480x320 pixels.
//
// This program requires the UTFT library.
//

#include <UTFT.h>

// Declare which fonts we will be using
extern uint8_t SmallFont[];

// Set the pins to the correct ones for your development shield
// ------------------------------------------------------------
// Arduino Uno / 2009:
// -------------------
// Standard Arduino Uno/2009 shield            : <display model>,A5,A4,A3,A2
// DisplayModule Arduino Uno TFT shield        : <display model>,A5,A4,A3,A2
//
// Arduino Mega:
// -------------------
// Standard Arduino Mega/Due shield            : <display model>,38,39,40,41
// CTE TFT LCD/SD Shield for Arduino Mega      : <display model>,38,39,40,41
//
// Remember to change the model parameter to suit your display module!
UTFT myGLCD(ILI9486,38,39,40,41);

void setup()
```

```
{
  randomSeed(analogRead(0));

// Setup the LCD
  myGLCD.InitLCD();
  myGLCD.InitLCD();
  myGLCD.setFont(SmallFont);
}

void loop()
{
  int buf[478];
  int x, x2;
  int y, y2;
  int r;

// Clear the screen and draw the frame
  myGLCD.clrScr();

  myGLCD.setColor(255, 0, 0);
  myGLCD.fillRect(0, 0, 479, 13);
  myGLCD.setColor(64, 64, 64);
  myGLCD.fillRect(0, 306, 479, 319);
  myGLCD.setColor(255, 255, 255);
  myGLCD.setBackColor(255, 0, 0);
  myGLCD.print("* Universal Color TFT Display Library *", CENTER, 1);
  myGLCD.setBackColor(64, 64, 64);
  myGLCD.setColor(255,255,0);
  myGLCD.print("<http://electronics.henningkarlsen.com>", CENTER, 307);

  myGLCD.setColor(0, 0, 255);
  myGLCD.drawRect(0, 14, 479, 305);

// Draw crosshairs
  myGLCD.setColor(0, 0, 255);
  myGLCD.setBackColor(0, 0, 0);
  myGLCD.drawLine(239, 15, 239, 304);
  myGLCD.drawLine(1, 159, 478, 159);
  for (int i=9; i<470; i+=10)
    myGLCD.drawLine(i, 157, i, 161);
  for (int i=19; i<220; i+=10)
    myGLCD.drawLine(237, i, 241, i);

// Draw sin-, cos- and tan-lines
  myGLCD.setColor(0,255,255);
  myGLCD.print("Sin", 5, 15);
  for (int i=1; i<478; i++)
  {
    myGLCD.drawPixel(i,159+(sin(((i*1.13)*3.14)/180)*95));
  }

  myGLCD.setColor(255,0,0);
  myGLCD.print("Cos", 5, 27);
  for (int i=1; i<478; i++)
  {
    myGLCD.drawPixel(i,159+(cos(((i*1.13)*3.14)/180)*95));
  }

  myGLCD.setColor(255,255,0);
  myGLCD.print("Tan", 5, 39);
  for (int i=1; i<478; i++)
  {
    myGLCD.drawPixel(i,159+(tan(((i*1.13)*3.14)/180)));
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);
  myGLCD.setColor(0, 0, 255);
  myGLCD.setBackColor(0, 0, 0);
```

```
  myGLCD.drawLine(239, 15, 239, 304);
  myGLCD.drawLine(1, 159, 478, 159);

// Draw a moving sinewave
  x=1;
  for (int i=1; i<(478*15); i++)
  {
    x++;
    if (x==479)
      x=1;
    if (i>479)
    {
      if ((x==239)||(buf[x-1]==159))
        myGLCD.setColor(0,0,255);
      else
        myGLCD.setColor(0,0,0);
      myGLCD.drawPixel(x,buf[x-1]);
    }
    myGLCD.setColor(0,255,255);
    y=159+(sin(((i*0.7)*3.14)/180)*(90-(i / 100)));
    myGLCD.drawPixel(x,y);
    buf[x-1]=y;
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some filled rectangles
  for (int i=1; i<6; i++)
  {
    switch (i)
    {
      case 1:
        myGLCD.setColor(255,0,255);
        break;
      case 2:
        myGLCD.setColor(255,0,0);
        break;
      case 3:
        myGLCD.setColor(0,255,0);
        break;
      case 4:
        myGLCD.setColor(0,0,255);
        break;
      case 5:
        myGLCD.setColor(255,255,0);
        break;
    }
    myGLCD.fillRect(150+(i*20), 70+(i*20), 210+(i*20), 130+(i*20));
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some filled, rounded rectangles
  for (int i=1; i<6; i++)
  {
    switch (i)
    {
      case 1:
        myGLCD.setColor(255,0,255);
        break;
      case 2:
        myGLCD.setColor(255,0,0);
        break;
      case 3:
        myGLCD.setColor(0,255,0);
```

```
        break;
      case 4:
        myGLCD.setColor(0,0,255);
        break;
      case 5:
        myGLCD.setColor(255,255,0);
        break;
    }
    myGLCD.fillRoundRect(270-(i*20), 70+(i*20), 330-(i*20), 130+(i*20));
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some filled circles
  for (int i=1; i<6; i++)
  {
    switch (i)
    {
      case 1:
        myGLCD.setColor(255,0,255);
        break;
      case 2:
        myGLCD.setColor(255,0,0);
        break;
      case 3:
        myGLCD.setColor(0,255,0);
        break;
      case 4:
        myGLCD.setColor(0,0,255);
        break;
      case 5:
        myGLCD.setColor(255,255,0);
        break;
    }
    myGLCD.fillCircle(180+(i*20),100+(i*20), 30);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some lines in a pattern
  myGLCD.setColor (255,0,0);
  for (int i=15; i<304; i+=5)
  {
    myGLCD.drawLine(1, i, (i*1.6)-10, 304);
  }
  myGLCD.setColor (255,0,0);
  for (int i=304; i>15; i-=5)
  {
    myGLCD.drawLine(478, i, (i*1.6)-11, 15);
  }
  myGLCD.setColor (0,255,255);
  for (int i=304; i>15; i-=5)
  {
    myGLCD.drawLine(1, i, 491-(i*1.6), 15);
  }
  myGLCD.setColor (0,255,255);
  for (int i=15; i<304; i+=5)
  {
    myGLCD.drawLine(478, i, 490-(i*1.6), 304);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);
```

```
// Draw some random circles
  for (int i=0; i<100; i++)
  {
    myGLCD.setColor(random(255), random(255), random(255));
    x=32+random(416);
    y=45+random(226);
    r=random(30);
    myGLCD.drawCircle(x, y, r);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some random rectangles
  for (int i=0; i<100; i++)
  {
    myGLCD.setColor(random(255), random(255), random(255));
    x=2+random(476);
    y=16+random(289);
    x2=2+random(476);
    y2=16+random(289);
    myGLCD.drawRect(x, y, x2, y2);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

// Draw some random rounded rectangles
  for (int i=0; i<100; i++)
  {
    myGLCD.setColor(random(255), random(255), random(255));
    x=2+random(476);
    y=16+random(289);
    x2=2+random(476);
    y2=16+random(289);
    myGLCD.drawRoundRect(x, y, x2, y2);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

  for (int i=0; i<100; i++)
  {
    myGLCD.setColor(random(255), random(255), random(255));
    x=2+random(476);
    y=16+random(289);
    x2=2+random(476);
    y2=16+random(289);
    myGLCD.drawLine(x, y, x2, y2);
  }

  delay(2000);

  myGLCD.setColor(0,0,0);
  myGLCD.fillRect(1,15,478,304);

  for (int i=0; i<10000; i++)
  {
    myGLCD.setColor(random(255), random(255), random(255));
    myGLCD.drawPixel(2+random(476), 16+random(289));
  }

  delay(2000);
```

```
  myGLCD.fillScr(0, 0, 255);
  myGLCD.setColor(255, 0, 0);
  myGLCD.fillRoundRect(160, 70, 319, 169);

  myGLCD.setColor(255, 255, 255);
  myGLCD.setBackColor(255, 0, 0);
  myGLCD.print("That's it!", CENTER, 93);
  myGLCD.print("Restarting in a", CENTER, 119);
  myGLCD.print("few seconds...", CENTER, 132);

  myGLCD.setColor(0, 255, 0);
  myGLCD.setBackColor(0, 0, 255);
  myGLCD.print("Runtime: (msecs)", CENTER, 290);
  myGLCD.printNumI(millis(), CENTER, 305);

  delay (10000);
}
```