Touch screen code V3

#include <UTFT.h>

#include <URTouch.h>

int red1 = 13;

int red2 = 12;

int red3 = 11;

int red4 = 81;

int green = 78;

// Declare which fonts we will be using

extern uint8\_t BigFont[];

// Set the pins to the correct ones for your development shield

// ------------------------------------------------------------

// My chipKit Uno32/uC32 shield : <display model>,38,39,40,41

// My chipKit Max32 shield : <display model>,82,83,84,85

// AquaLEDSource All in One Super Screw Shield : <display model>,82,83,84,85

//

// Remember to change the model parameter to suit your display module!

UTFT myGLCD(ITDB32S,82,83,84,85);

URTouch myTouch(48,49,50,51,52);

int x, y;

char stCurrent[20]="";

int stCurrentLen=0;

char stLast[20]="";

String str = "";

void touchFunc(String pin)

{

if (str.length() < 4)

{

str += pin;

Serial.println(str);

if (str.length() == 0)

{

digitalWrite(red1, LOW);

digitalWrite(red2, LOW);

digitalWrite(red3, LOW);

digitalWrite(red4, LOW);

}

if(str.length() == 1)

{

digitalWrite(red1, HIGH);

digitalWrite(red2, LOW);

digitalWrite(red3, LOW);

digitalWrite(red4, LOW);

}

if(str.length() == 2)

{

digitalWrite(red1, HIGH);

digitalWrite(red2, HIGH);

digitalWrite(red3, LOW);

digitalWrite(red4, LOW);

}

if (str.length() == 3)

{

digitalWrite(red1, HIGH);

digitalWrite(red2, HIGH);

digitalWrite(red3, HIGH);

digitalWrite(red4, LOW);

}

if (str.length() == 4)

{

digitalWrite(red1, HIGH);

digitalWrite(red2, HIGH);

digitalWrite(red3, HIGH);

digitalWrite(red4, HIGH);

}

}

delay(100);

}

boolean pwdConfirm(String pwd)

{

if(pwd.equals("8989"))

{

return true;

digitalWrite(red1, LOW);

digitalWrite(red2, LOW);

digitalWrite(red3, LOW);

digitalWrite(red4, LOW);

digitalWrite(green, HIGH);

}

else

return false;

}

void setup(){

Serial.begin(9600);

randomSeed(analogRead(0));

pinMode(red1, OUTPUT);

pinMode(red2, OUTPUT);

pinMode(red3, OUTPUT);

pinMode(red4, OUTPUT);

pinMode(green, OUTPUT);

// Setup the LCD

myGLCD.InitLCD();

myGLCD.setFont(BigFont);

myGLCD.clrScr();

myTouch.InitTouch();

myTouch.setPrecision(PREC\_HI);

int n = 0;

String nums[] = {"1", "4", "7", "2", "5", "8", "3", "6", "9", "GO", "0", "BK"};

for(int x = 0; x < 4; x++)

{

for(int y = 0; y < 3; y++)

{

myGLCD.setBackColor(0, 0, 0);

myGLCD.setColor(255, 255, 255);

myGLCD.fillRect(12 + x \* 77, 12 + y\*76, 77 + 77\* x, 76 + y \* 76);

myGLCD.setBackColor(255, 255, 255);

myGLCD.setColor(0, 0, 0);

if (n != 9 || n != 11)

{

myGLCD.print(nums[n], 37 + x \* 77, 35 + y \* 76);

}

else{

myGLCD.print(nums[n], 32 + x \* 77, 32 + y \* 76);

}

n++;

}

}

}

void waitForIt(int x1, int y1, int x2, int y2) {

myGLCD.setColor(255, 0, 0);

myGLCD.drawRoundRect (x1, y1, x2, y2);

while (myTouch.dataAvailable())

myTouch.read();

myGLCD.setColor(255, 255, 255);

myGLCD.drawRoundRect (x1, y1, x2, y2);

}

void loop()

{

if (myTouch.dataAvailable())

{

myTouch.read();

x=myTouch.getX();

y=myTouch.getY();

if ((y>=12) && (y<=76)) // Upper row

{

if ((x>=12) && (x<=77)) // Button: 1

{

waitForIt(12, 12, 77, 76);

touchFunc("1");

}

if ((x>=89) && (x<=154)) // Button: 1

{

waitForIt(89, 12, 154, 76);

touchFunc("2");

}

if ((x>=166) && (x<=231)) // Button: 1

{

waitForIt(166, 12, 231, 76);

touchFunc("3");

}

if ((x>=243) && (x<=308)) // Button: 1

{

waitForIt(243, 12, 308, 76);

if(pwdConfirm(str))

Serial.println("ACCESS GRANTED");

else

Serial.println("ACCESS DENIED");

}

}

if ((y>=88) && (y<=152)) // Center row

{

if ((x>=12) && (x<=77)) // Button: 1

{

waitForIt(12, 88, 77, 152);

touchFunc("4");

}

if ((x>=89) && (x<=154)) // Button: 1

{

waitForIt(89, 88, 154, 152);

touchFunc("5");

}

}

if ((x>=166) && (x<=231)) // Button: 1

{

waitForIt(166, 88, 231, 152);

touchFunc("6");

}

if ((x>=243) && (x<=308)) // Button: 1

{

waitForIt(243, 88, 308, 152);

touchFunc("0");

}

}

if ((y>=164) && (y<=228)) // Center row

{

if ((x>=12) && (x<=77)) // Button: 1

{

waitForIt(12, 164, 77, 228);

touchFunc("7");

}

if ((x>=89) && (x<=154)) // Button: 1

{

waitForIt(89, 164, 154, 228);

touchFunc("8");

}

if ((x>=166) && (x<=231)) // Button: 1

{

waitForIt(166, 164, 231, 228);

touchFunc("9");

}

if ((x>=243) && (x<=308)) // Button: 1

{

waitForIt(243, 164, 308, 228);

if (str.length() > 1)

str = str.substring(str.length()-1);

else

{

str = "";

touchFunc(str);

}

}

}

}