

#include <device.h>

#include <header01.h>

#include <math.h>

//This converts the polar cordinates given to the point to point used for the DrawLine

void GLCD\_Draw\_Line\_Polar(int centerX, int centerY, int angle, int length, int color)

{

GLCD\_DrawLine(centerX,centerY,(length\*cos(((angle\*M\_PI))/180))+centerX,(length\*sin(((angle\*M\_PI))/180))+centerY, color);

}

//Function that has loops to draw pacman

void PACMAN(int centerAngle)

{

int16 count1;

int16 count2;

int16 count3;

//Draws the original yellow circle

for( count1=0; count1<360;count1++)

{

GLCD\_Draw\_Line\_Polar(CENTER, CENTER,count1 , 50, GLCD\_YELLOW); //Thins draws the original yellow circle

}

while(1)

{

//Draws black mouth open

for(count2=centerAngle;count2<=centerAngle+30;count2++)

{

GLCD\_Draw\_Line\_Polar(CENTER, CENTER,-count2 , 50, GLCD\_BLACK); //Draws the black mouth

GLCD\_Draw\_Line\_Polar(CENTER, CENTER,count2 , 50, GLCD\_BLACK); //Draws the black mouth

}

//Draws mouth closed by drawing yellow lines

for( count3=centerAngle+30;count3>=centerAngle;count3--)

{

GLCD\_Draw\_Line\_Polar(CENTER, CENTER,-count3 , 50, GLCD\_YELLOW);

GLCD\_Draw\_Line\_Polar(CENTER, CENTER,count3 , 50, GLCD\_YELLOW);

}

}

}

int main()

{

int16 i; // counter variable -- int16 will take up less room than int32

int16 x = CENTER; // x and y coordinates for center of circle--- This is defined in the header file

int16 y = 62;

// Initialize LCD

GLCD\_Start();

Backlight\_Write(1); // turn on backlight

LED\_Blue\_Write(1); LED\_Green\_Write(1); LED\_Red\_Write(1); // turn off all LEDs (1 means off)

// clear LCD to crimson color

GLCD\_Clear(GLCD\_BLACK);

//Call pacman function

PACMAN(0);

//PACMAN(90);

//PACMAN(180);

//PACMAN(270);