#include <LiquidCrystal.h>

#define INTERVAL 1000

LiquidCrystal LcdDriver(11,9,5,6,7,8); //Declaring which pins to use

int count; //Declaring int variable count

unsigned long LcdTimer; //Timer for the loop

unsigned long SecondsTimer; //Timer for seconds

int Hours, Minutes, Seconds; //Vars for Hours, Minutes, Seconds

void UpdateClock()

{

if (Seconds < 59)

{

Seconds++; //Increments Seconds

}

else

{

Seconds = 0; //Resets Seconds

if (Minutes < 59)

{

Minutes++; //Increments Minutes

}

else

{

Minutes = 0; //Resets Minutes

if (Hours < 23)

{

Hours++; //Increments Hours

}

else

{

Hours = 0; //Reset Hours

}//end hours test

}//end minutes test

}//end seconds test

}//end updateclock method

void SendClock()

{

//checks what the leading digit of hours should be

if (Hours < 10)

{

LcdDriver.print("0");

}

LcdDriver.print(Hours);

LcdDriver.print(":");

//checks for leading digit of minutes

if (Minutes < 10)

{

LcdDriver.print("0");

}

LcdDriver.print(Minutes);

LcdDriver.print(":");

//checks for leading digit of seconds

if (Seconds < 10)

{

LcdDriver.print("0");

}

LcdDriver.print(Seconds);

}//end of sendclock method

void setup()

{

LcdDriver.begin(16,2); //Starting the LCD

LcdDriver.clear(); //Clearing the LCD

count = 0; //Initializing count to zero

SecondsTimer = millis();

//Initialize the clock

Hours = 23;

Minutes = 59;

Seconds = 55;

}

void loop()

{

if ( millis() - SecondsTimer >= INTERVAL) //Every 500 milliseconds

{

UpdateClock();

LcdDriver.clear();

LcdDriver.setCursor( 0,1 );

SendClock();

SecondsTimer += INTERVAL;

}

}