Name //Youssef Adel Salem

Sec//3

Traffic Light

Purpose of Project :

To make traffic light using microcontroller PIC16F877A.
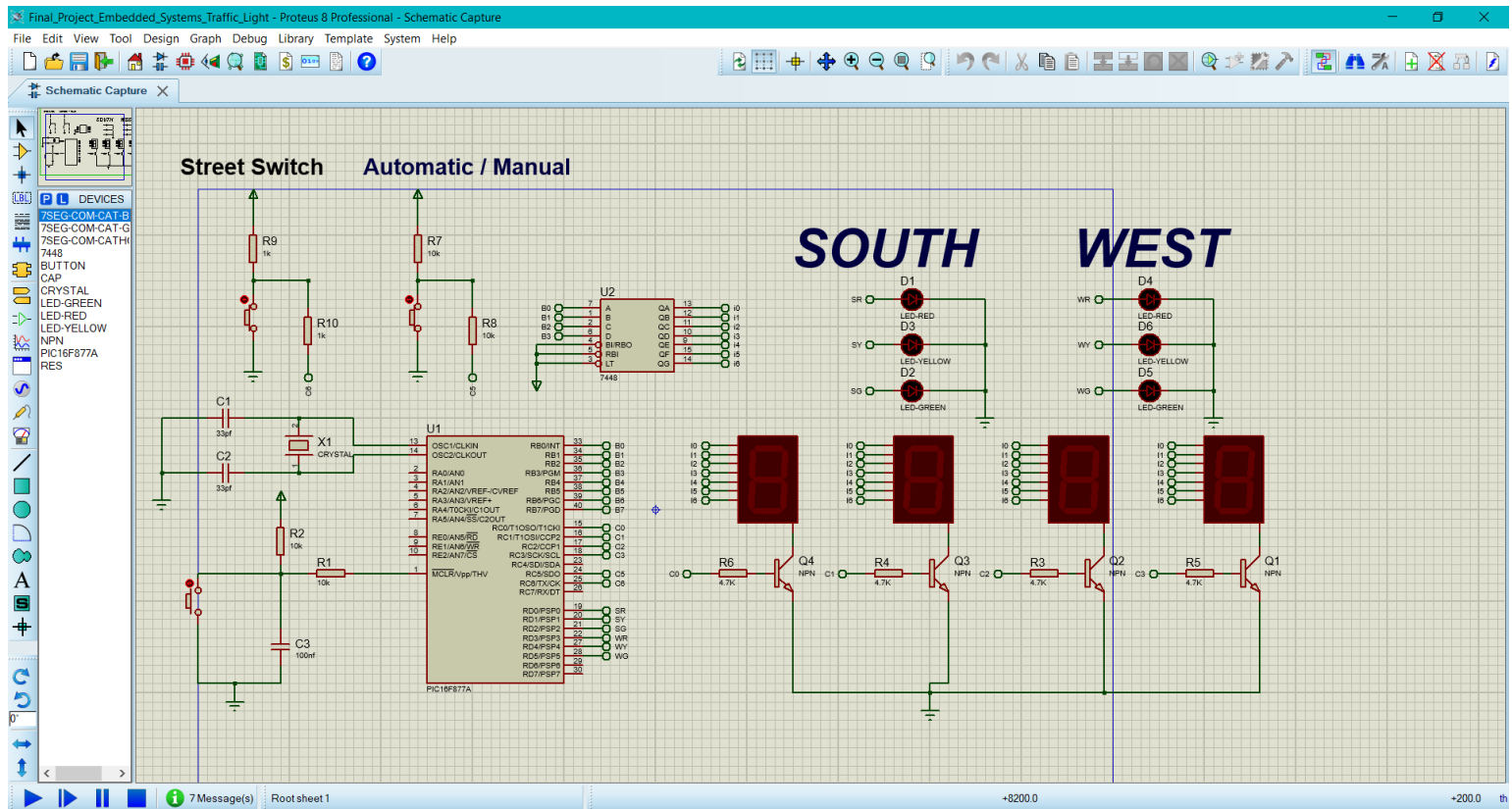
Introduction:

Our project is to make a 2 traffic light , for 2 street in 2 directions –south&west- and control them [Automatically/Manually].

Components:

In order to do this project we used :

- Microcontroller PIC16F877A
- four 7-segments com-cathode- Red.
- One decoder 7448.
- Leds
- Transistors
- Capacitors
- Resistors

Schematic :

Using **master clear switch** we turn microcontroller (on/off)…

Automatic mode:

When Automatic mode is on :

   South street's green led is on -open- and **west's** red one is on-stop - Then after 15sec the traffic Light change ,, so the **south** red led is on –stop- and **west's** Green one is on - open- …..

Display time on automatic mode :

   We used two 7-segment To display time in each street in automatic mode

And-successfully –using one decoder **- As a type of Reduce the needed hardware as possible** - for the four 7-segment **.**

Manual mode:

When we apply Manual mode –using **(Automatic/Manual) switch**- we will Make one of the two–After 3sec of waiting –Yellow led is on - -is on-Green led will be on – and the other street is stopped – Red led is on – And **To control** between the two streets we shall use **street switch**.

In Manual mode , we stopped the display of time on 7-segments…

For more details , please click here: