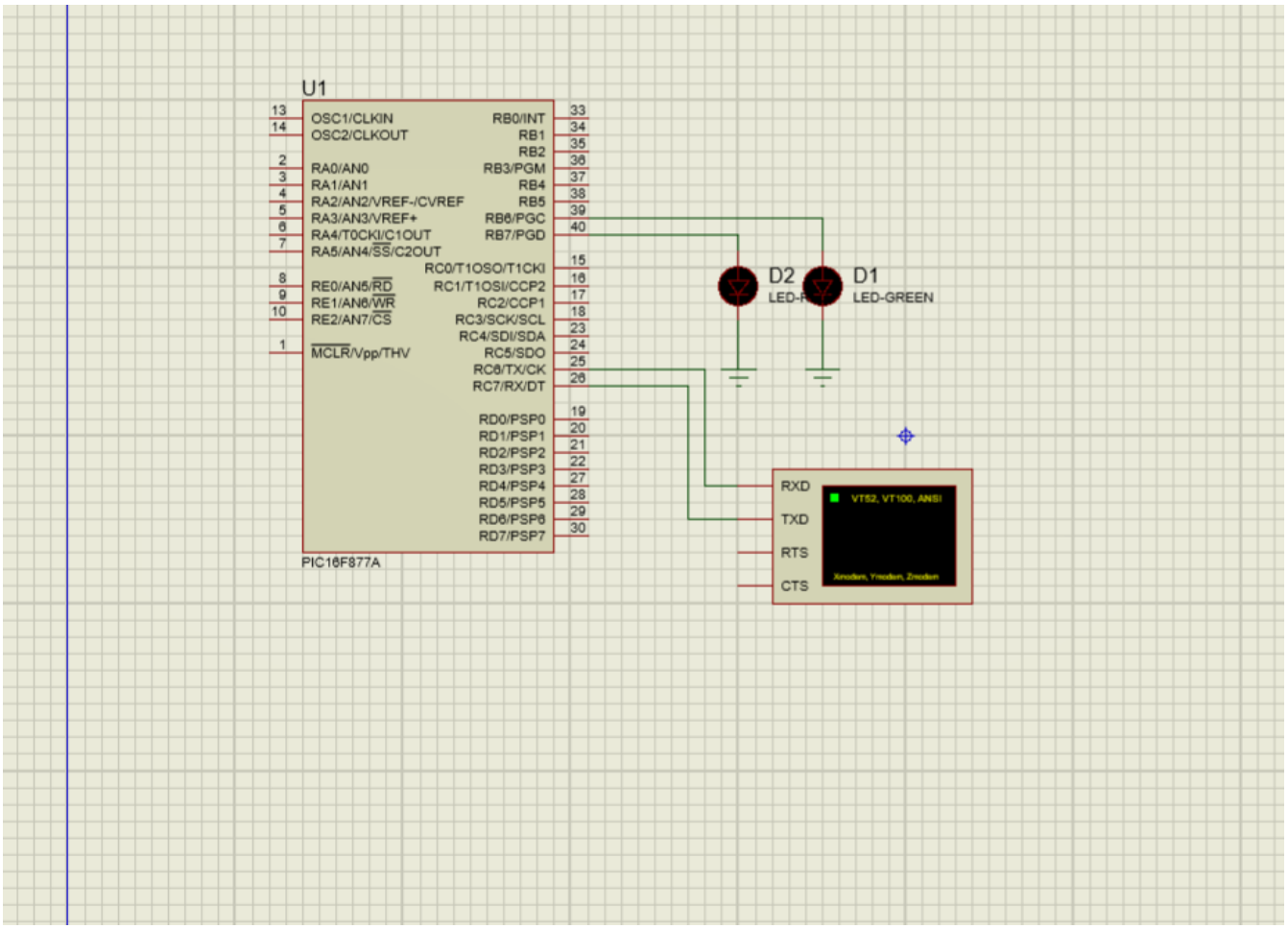
U1
13
14
2
3
4
5
6
7
8
9
10
1
OSC1/CLKIN
OSC2/CLKOUT
RA0/AN0
RA1/AN1
RA2/AN2/VREF-/CVREF
RA3/AN3/VREF+
RA4/T0CKI/C1OUT
RA5/AN4/SS/C2OUT
RE0/AN5/RD
RE1/AN6/WR
RE2/AN7/CS
MCLR/Vpp/THV
RB0/INT
RB1
RB2
RB3/PGM
RB4
RB5
RB6/PGC
RB7/PGD
RC0/T1OSO/T1CKI
RC1/T1OSI/CCP2
RC2/CCP1
RC3/SCK/SCL
RC4/SDI/SDA
RC5/SDO
RC6/TX/CK
RC7/RX/DT
RD0/PSP0
RD1/PSP1
RD2/PSP2
RD3/PSP3
RD4/PSP4
RD5/PSP5
RD6/PSP6
RD7/PSP7
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21
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27
28
29
30
PIC16F877A
D2
LED-R
D1
LED-GREEN
RXD
TXD
RTS
CTS
VT52, VT100, ANSI
Xmodem, Ymodem, Zmodem

```
#include <pic.h>


__CONFIG(FOSC_HS & WDTE_OFF & PWRTE_ON & BOREN_OFF & LVP_OFF);
#define _XTAL_FREQ 20000000  // 20MHz Crystal Frequency


int data = 0;


// UART Interrupt Service Routine
void interrupt isr()
{
  if (RCIF == 1)  // Check if data received
  {
     data = RCREG;  // Read received data
     RCIF = 0;      // Clear receive flag
  }
}


void UART_Init()
{
  TRISC6 = 0;  // TX (RC6) as Output
  TRISC7 = 1;  // RX (RC7) as Input

  SPBRG = 129;  // Baud Rate 9600 for 20MHz clock
  TXSTA = 0x24; // Enable TX
  RCSTA = 0x90; // Enable RX


  GIE = 1;  // Enable Global Interrupt
  PEIE = 1; // Enable Peripheral Interrupt
```

```
  RCIE = 1; // Enable UART Receive Interrupt
}


void main()
{
  UART_Init();  // Initialize UART
  TRISB = 0x00; // Set PORTB as output
  PORTB = 0x00; // Initially all LEDs OFF


  while (1)
  {
     if (data == 'a')  RB7 = 1; // Turn ON RB7
     else if (data == 'b') RB7 = 0; // Turn OFF RB7
     else if (data == 'c') RB6 = 1; // Turn ON RB6
     else if (data == 'd') RB6 = 0; // Turn OFF RB6
  }
}
```