



MTE 323

Embedded Systems Lab

Lab LCD

Submitted by

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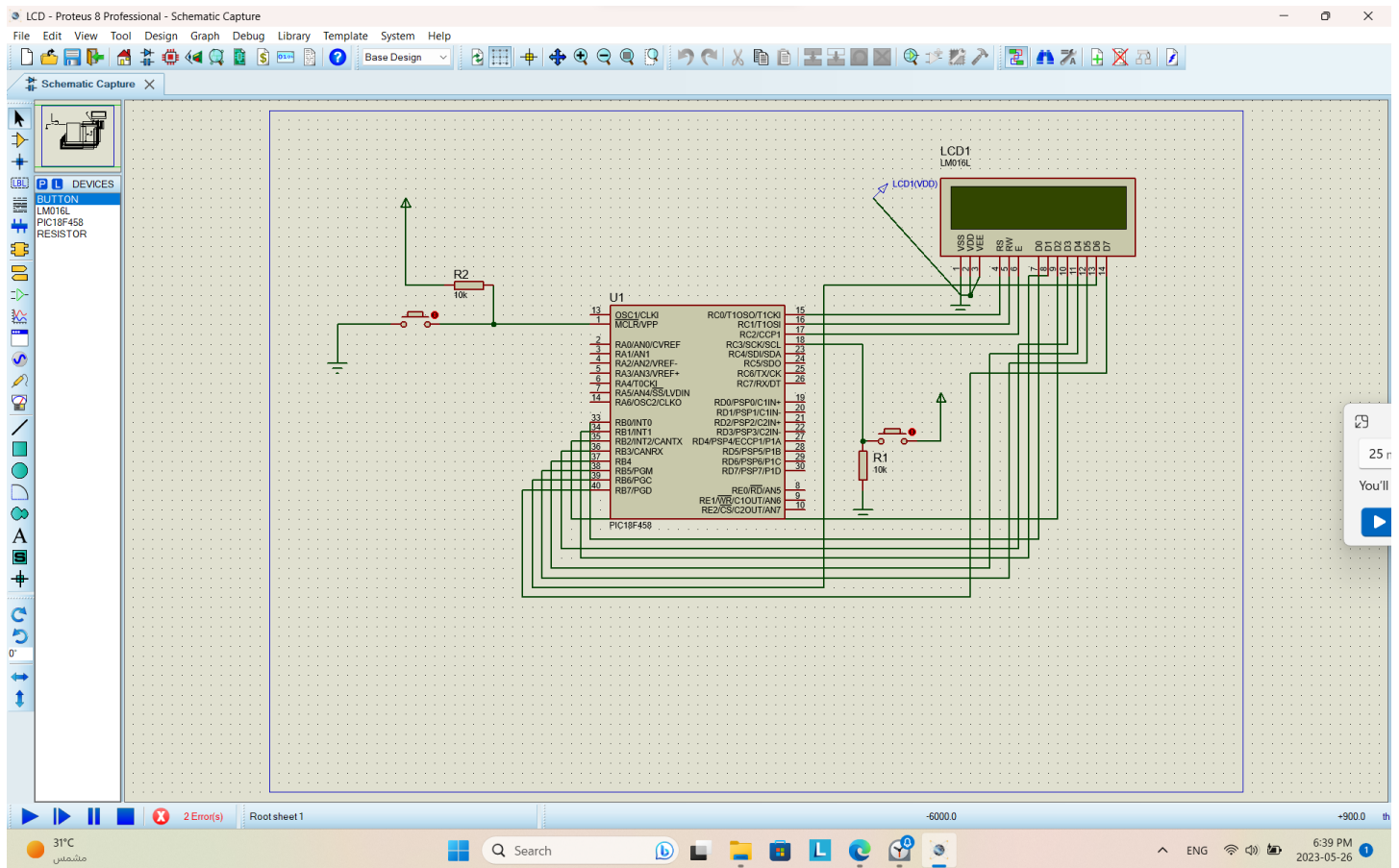
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To

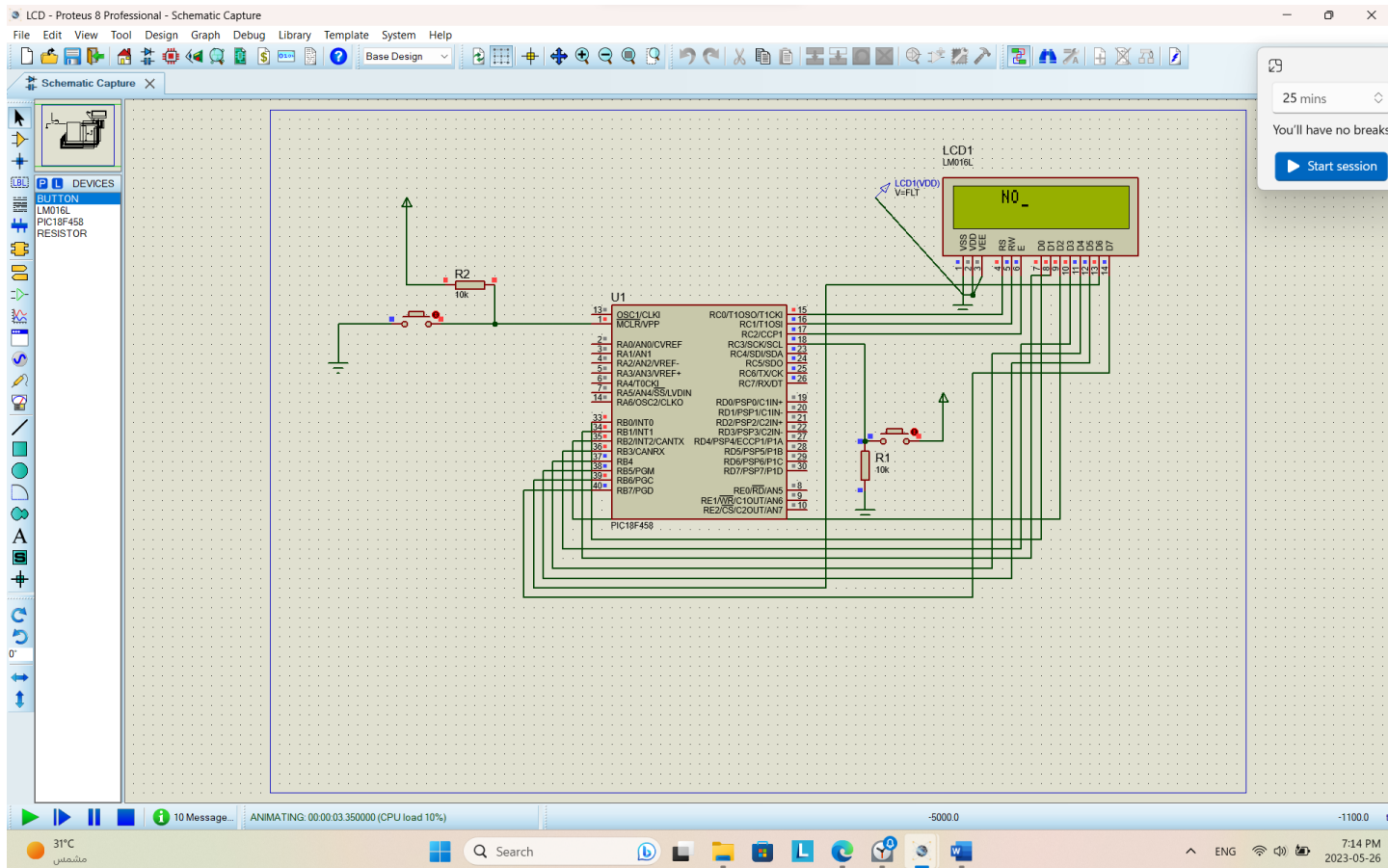
Prof. Sabah Ahmed

Eng. Abdullah Alamer

Simulation Off



Simulation On



Code

LIST P=PIC18F458,F=INHX32,N=0,ST=OFF,R=HEX

#include <p18f458.inc>

ORG 0H

MYREG EQU 0X9

LCD_DATA EQU PORTB

LCD_CTRL EQU PORTC

RS EQU RC0

RW EQU RC1

EN EQU RC2

CLRF TRISB

CLRF TRISC

BCF LCD_CTRL,EN

CALL LDELAY

MOVLW 0X38

CALL COMNWRT

CALL LDELAY

MOVLW 0X0E

CALL COMNWRT

CALL DELAY

MOVLW 0X01

CALL COMNWRT

CALL DELAY

MOVLW 0X06

CALL COMNWRT

CALL DELAY

MOVLW 0X84

CALL COMNWRT

```
CALL DELAY
MOVLW A'N'
CALL DATAWRT
CALL DELAY
MOVLW A'O'
CALL DATAWRT
```

```
AGAIN  BTG LCD_CTRL ,0
        BRA AGAIN
```

```
COMNWRT MOVWF LCD_DATA
        BCF LCD_CTRL ,RS
        BCF LCD_CTRL ,RW
        BSF LCD_CTRL ,EN
        CALL DELAY
        BCF LCD_CTRL ,EN
        RETURN
```

```
DATAWRT MOVWF LCD_DATA
        BSF LCD_CTRL ,RS
        BCF LCD_CTRL ,RW
        BSF LCD_CTRL ,EN
        CALL DELAY
        BCF LCD_CTRL ,EN
        RETURN
```

```
LDELAY MOVLW 0XFF
        MOVWF MYREG
        NOP
```

NOP

NOP

B1 DECF MYREG

 BNZ B1

 RETURN

DELAY MOVLW 0XFF

 MOVWF MYREG

 NOP

 NOP

 NOP

A1 DECF MYREG

 BNZ A1

 RETURN

END