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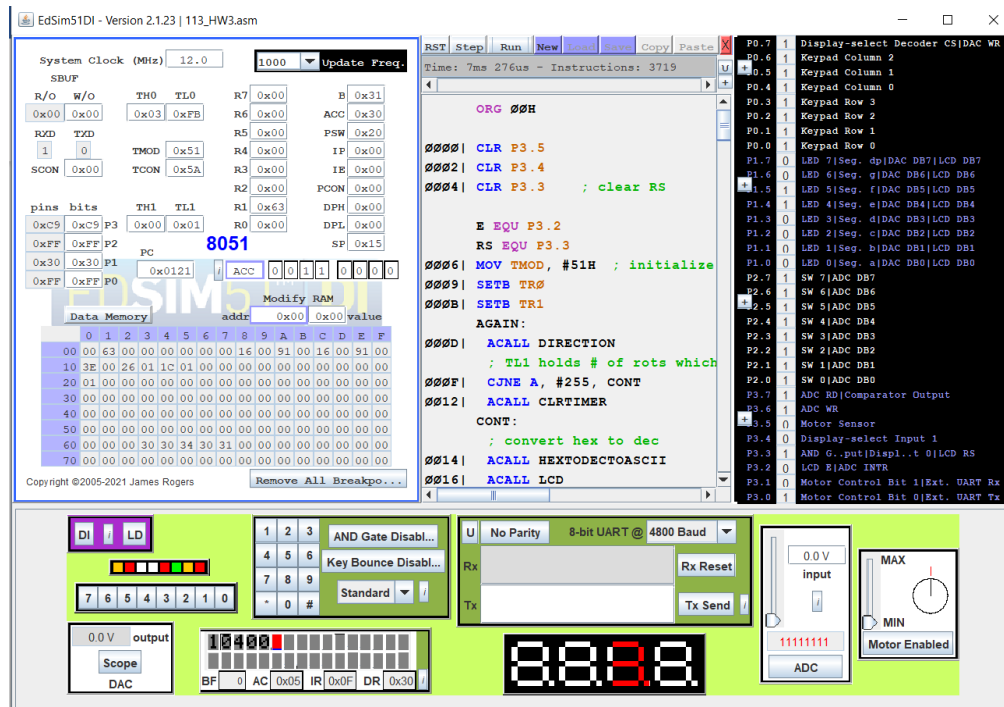
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Assignment 3: Screenshots

Slider at MIN: (LCD displays 10400)



Slider at the middle: (LCD displays 15600)

The screenshot shows the EdSim51DI v2.1.23 interface. The assembly code is loaded from 113_HW3.asm. The slider is at the middle position (15600). The assembly code is as follows:

```
ORG 00H
0000| CLR P3.5
0002| CLR P3.4
0004| CLR P3.3 ; clear RS
E EQU P3.2
RS EQU P3.3
0006| MOV TMOD, #51H ; initialize
0009| SETB TR0
000B| SETB TR1
AGAIN:
000D| ACALL DIRECTION
; T1 holds # of rots which
000F| CJNE A, #255, CONT
0012| ACALL CLRTIMER
CONT:
; convert hex to dec
0014| ACALL HEXTODECASCII
0016| ACALL LCD
```

The hardware interface shows a DAC output of 15600, a scope, and a motor control section with a slider at the middle position (15600).

Slider at MAX: (LCD displays 62400)

The screenshot shows the EdSim51DI v2.1.23 interface. The assembly code is loaded from 113_HW3.asm. The slider is at the MAX position (62400). The assembly code is as follows:

```
0108| MOV P1, #06H
010B| ACALL PulseE
; display on/off control
010D| MOV P1, #0FH
0110| ACALL PulseE
; send data
0112| SETB RS ; clear RS
0114| JMP LOOP
PulseE:
0116| SETB P3.2 ; negative e
0118| CLR P3.2
011A| ACALL DELAYL
011C| RET
DELAYL: ; delay for lcd, don't
011D| MOV R0, #50
011F| DJNZ R0, $
0121* RET
```

The hardware interface shows a DAC output of 62400, a scope, and a motor control section with a slider at the MAX position (62400).