Experiment no-1: Write a program in Assembly language of 8085 to add two numbers using LDAX/STAX

Assembly Code	Hex Code
LXI D, 2050	11 50 20
LDAX D	1A
MOV B, A	47
LXI D, 2051	11 51 20
LDAX D	1A
ADD B	80
INX D	13
STAX D	12
HLT	76

Assembly Code:

LXI D, 1050H

LDAX D

MOV B,A

LXI D, 1051H

LDAX D

ADD B

INX D

STAX D

HLT

HEX Code:

11

50

10

1A

47

11

51

10

1A

80

12

12

76

Procedure:

Step 1) Writing program in memory

1. Press SET/MEM
2. Type in Address 0000
3. Press Enter
4. Type 1st HEX Code3 (Here 01)
5. Press Enter
6. Follow step 4 and 5 to type in all HEX Codes.

Step 2) Assigning values to the address location

1. Press SET/MEM
2. Type address of 1st Location (Here 2050)
3. Press Enter
4. Type in 1st value in Hexadecimal format
5. Follow steps 1-4 to assign values to the 2nd address location

Step 3) Executing the program

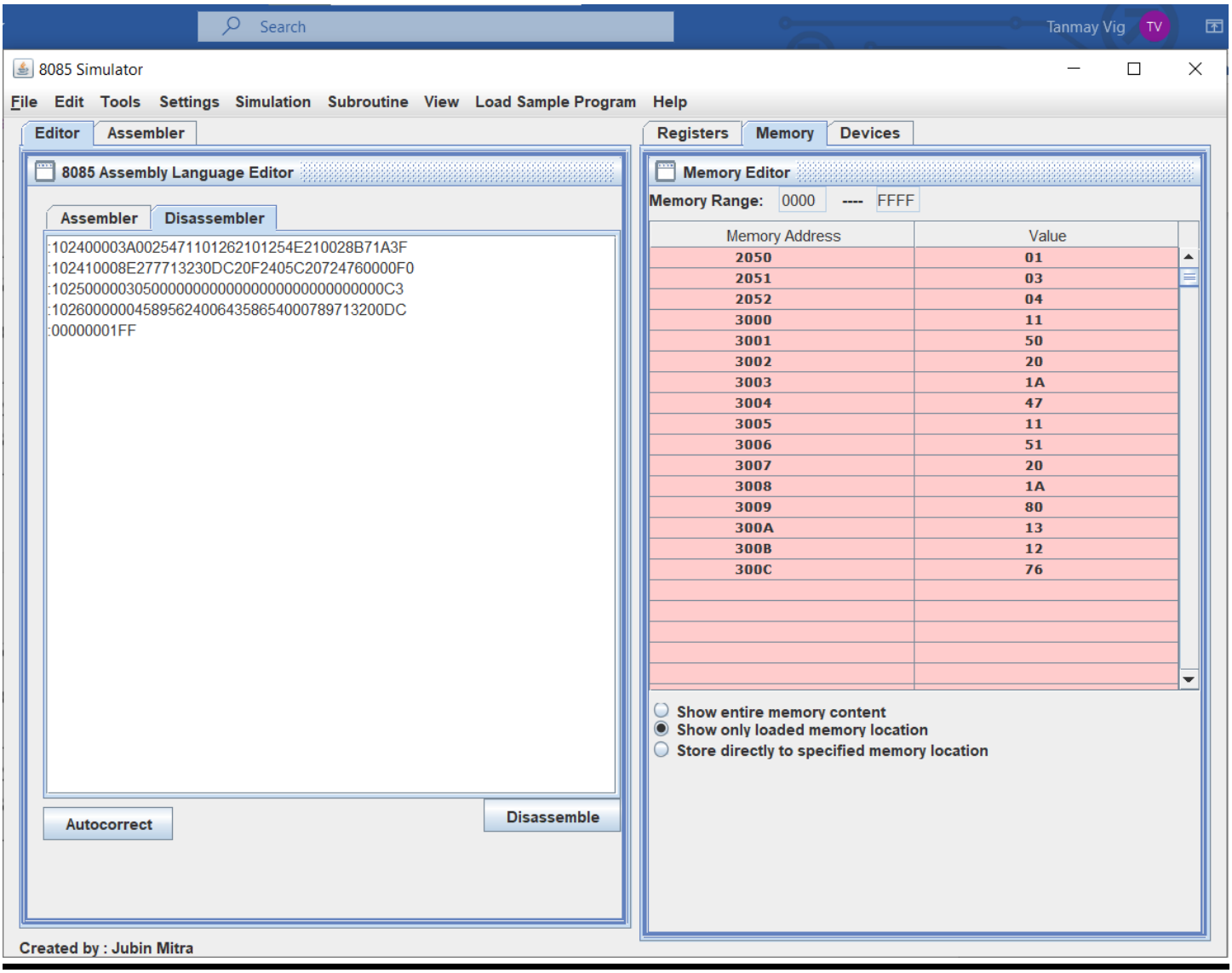
1. Press RESET to clear the buffer
2. Press SET/MEM
3. Type in starting address of the program (Here 0000)
4. Press GO

5. Press EXECUTE

Step 4) Checking the output

1. Press SET/MEM
2. Type in address of result location (Here 2703)
3. Press Enter
4. You will get the sum of both the numbers in hexadecimal format.

Output:



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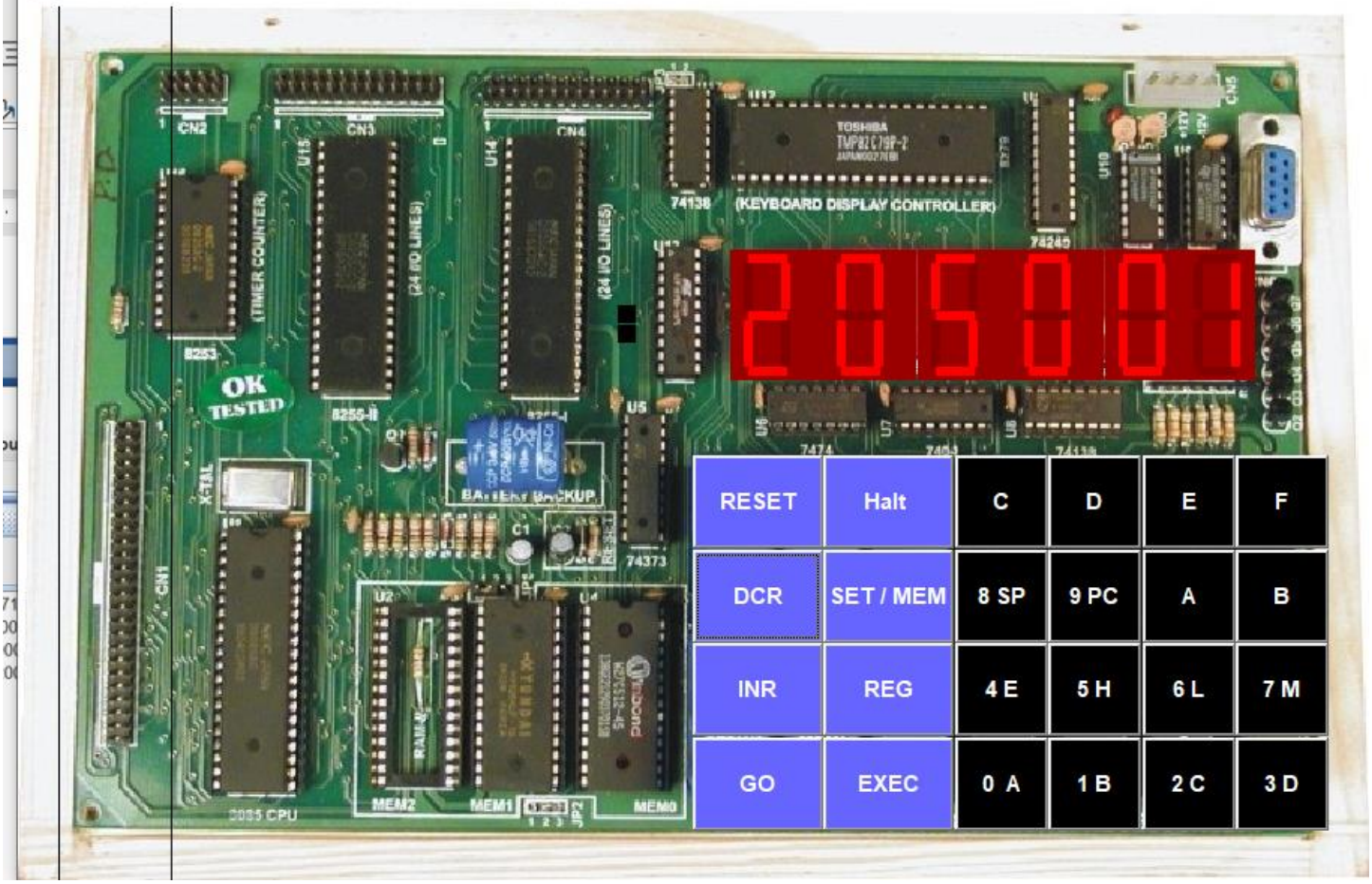

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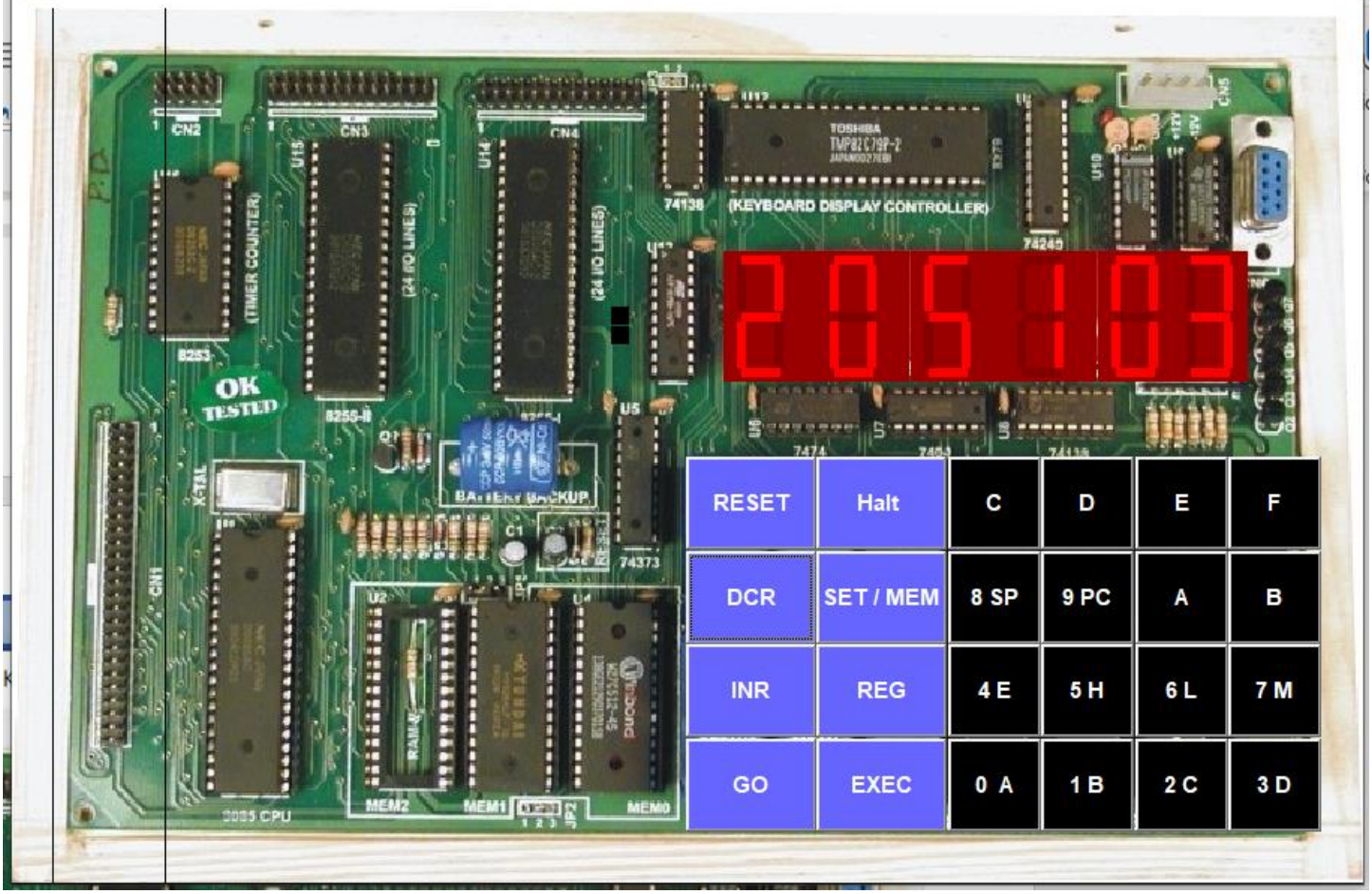

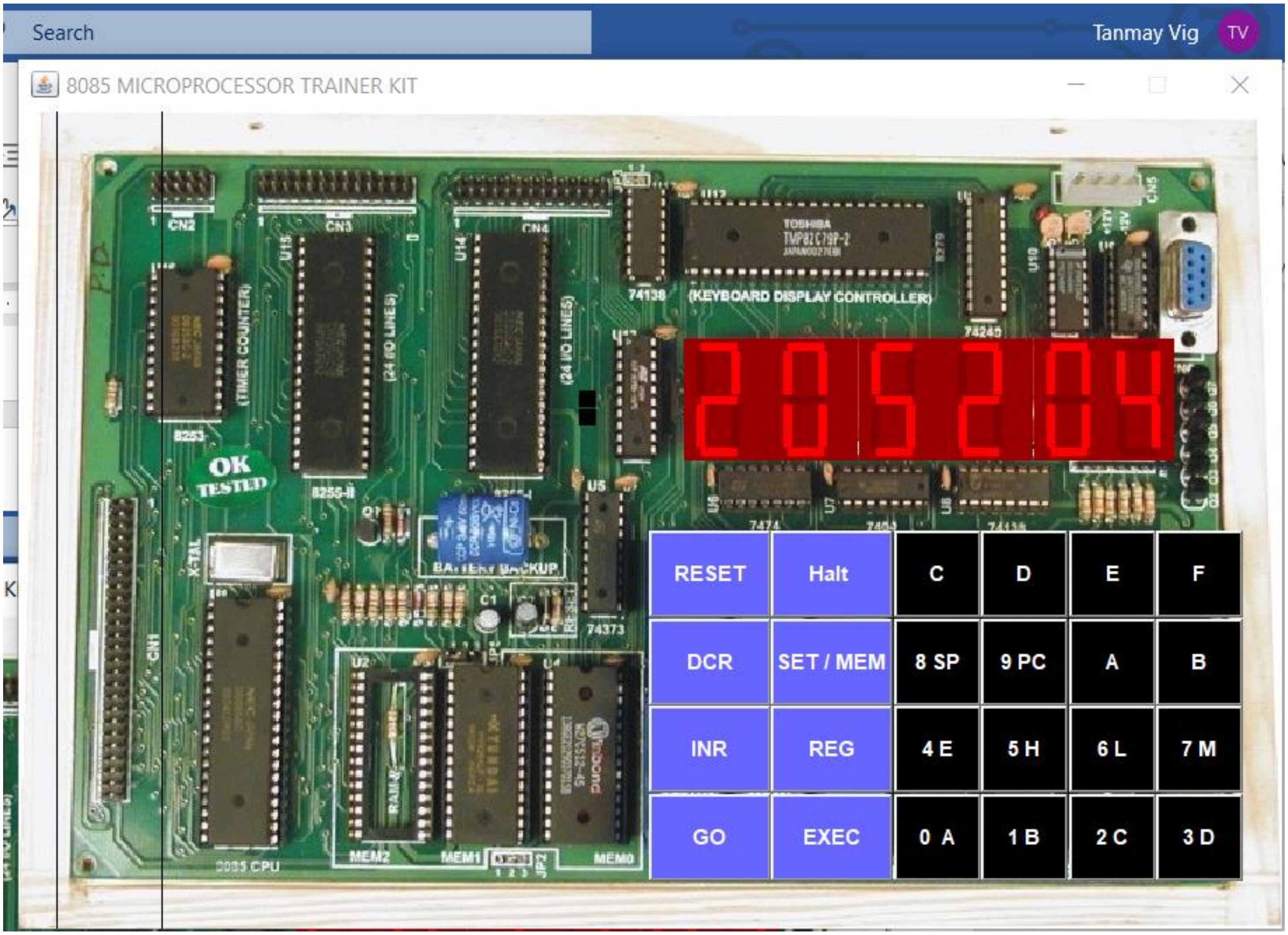
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TV
8085 MICROPROCESSOR TRAINER KIT
(KEYBOARD DISPLAY CONTROLLER)
(TIMER COUNTER)
(24 I/O LINES)
(24 I/O LINES)
OK TESTED
BATTERY BACKUP
8085 CPU
MEM2
MEM1
MEM0
205204
RESET
Halt
C
D
E
F
DCR
SET / MEM
8 SP
9 PC
A
B
INR
REG
4 E
5 H
6 L
7 M
GO
EXEC
0 A
1 B
2 C
3 D