

**Experiment NO. 2:** Write a program to add two 16 bits integers stored at memory locations 2050H and 2052H respectively and stored their 16 bit sum at 2054H location.

<u>ASSEMBLY LANGUAGE</u>	<u>HEX CODE</u>
LDA 2050	3A 50 20
MOV B A	47
LDA 2052H	3A 52 20
ADD B	80
STA 2054H	32 54 20
LDA 2051H	3A 51 20
MOV B A	47
LDA 5053H	3A 53 20
ADC B	80
STA 2055H	32 55 20
HLT	76

**Procedure :**

RESET SET/MEM  
PUT 4000  
PRESS ENTER  
PUT 3A

PRESS ENTER  
PUT 50  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 47  
PRESS ENTER  
PUT 3A  
PRESS ENTER  
PUT 52  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 80  
PRESS ENTER  
PUT 32  
PRESS ENTER  
PUT 54  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 3A  
PRESS ENTER  
PUT 51  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 47  
PRESS ENTER  
PUT 3A  
PRESS ENTER  
PUT 53  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 80  
PRESS ENTER  
PUT 32  
PRESS ENTER  
PUT 55  
PRESS ENTER  
PUT 20  
PRESS ENTER  
PUT 76

SET/MEM  
PUT 2050  
PRESS ENTER  
PUT 03  
PRESS ENTER

PUT 04  
PRESS ENTER  
PUT 05  
PRESS ENTER  
PUT 06

## FOR EXECUTION : -

RESET  
GO  
4000  
EXEC

## Output:

The screenshot displays the 8085 Simulator interface. The main window is titled "8085 Simulator" and includes a search bar and a menu bar with options: File, Edit, Tools, Settings, Simulation, Subroutine, View, Load Sample Program, and Help. The interface is divided into two main sections: the "Editor" on the left and the "Memory Editor" on the right.

The "Editor" section contains the "8085 Assembly Language Editor" with tabs for "Assembler" and "Disassembler". The "Assembler" tab is active, showing a list of memory addresses and their corresponding values in hexadecimal. The "Disassembler" tab is also visible. Below the editor, there are buttons for "Autocorrect" and "Disassemble".

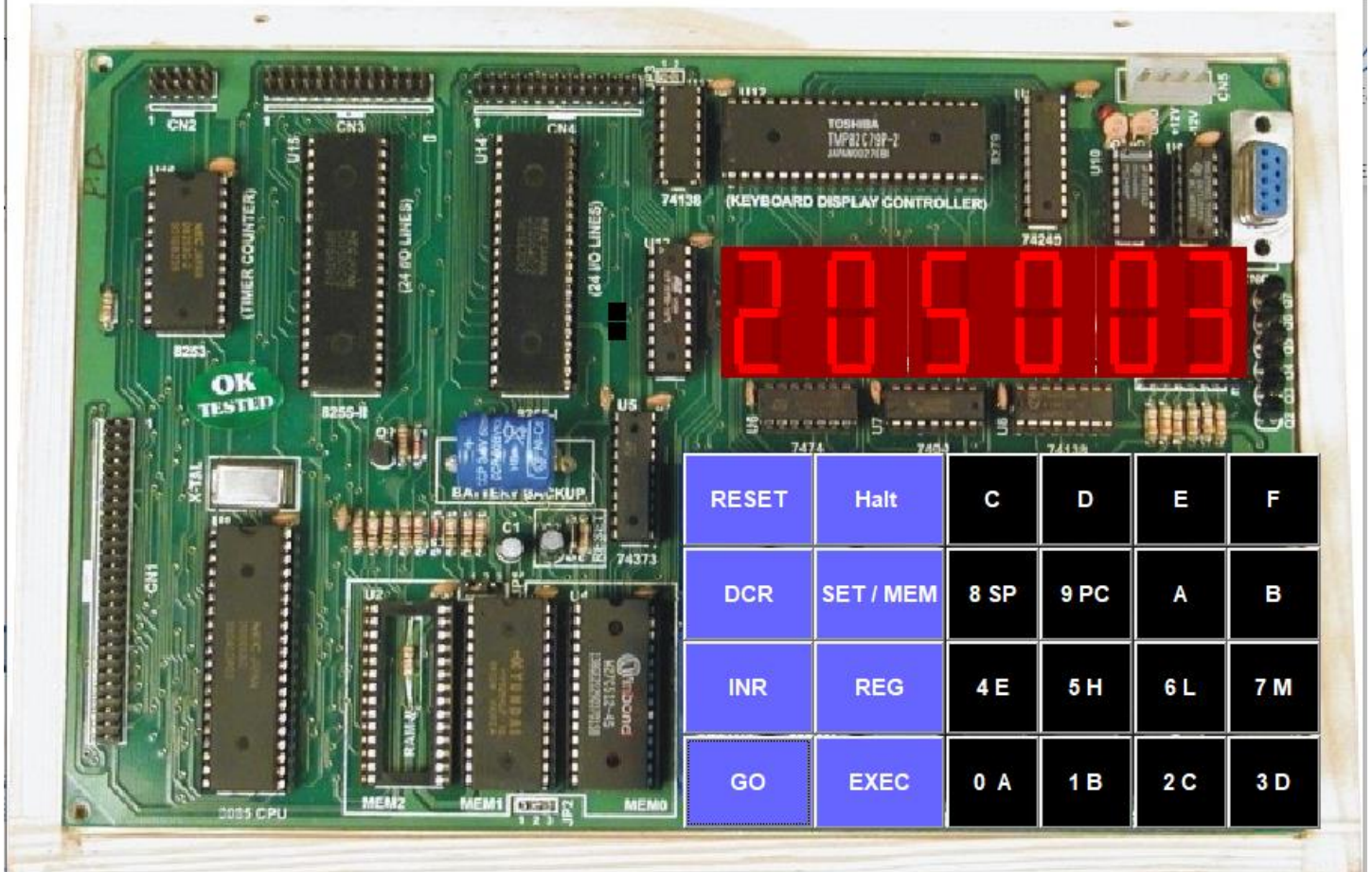
The "Memory Editor" section displays a table of memory addresses and values. The "Memory Range" is set to "0000" to "FFFF". The table shows the following data:

Memory Address	Value
2050	03
2051	04
2052	04
2053	03
2054	07
2055	07
3000	3A
3001	50
3002	20
3003	47
3004	3A
3005	52
3006	20
3007	80
3008	32
3009	54
300A	20
300B	3A
300C	51
300D	20
300E	47
300F	3A
3010	53
3011	20
3012	88
3013	32
3014	55
3015	20
3016	76

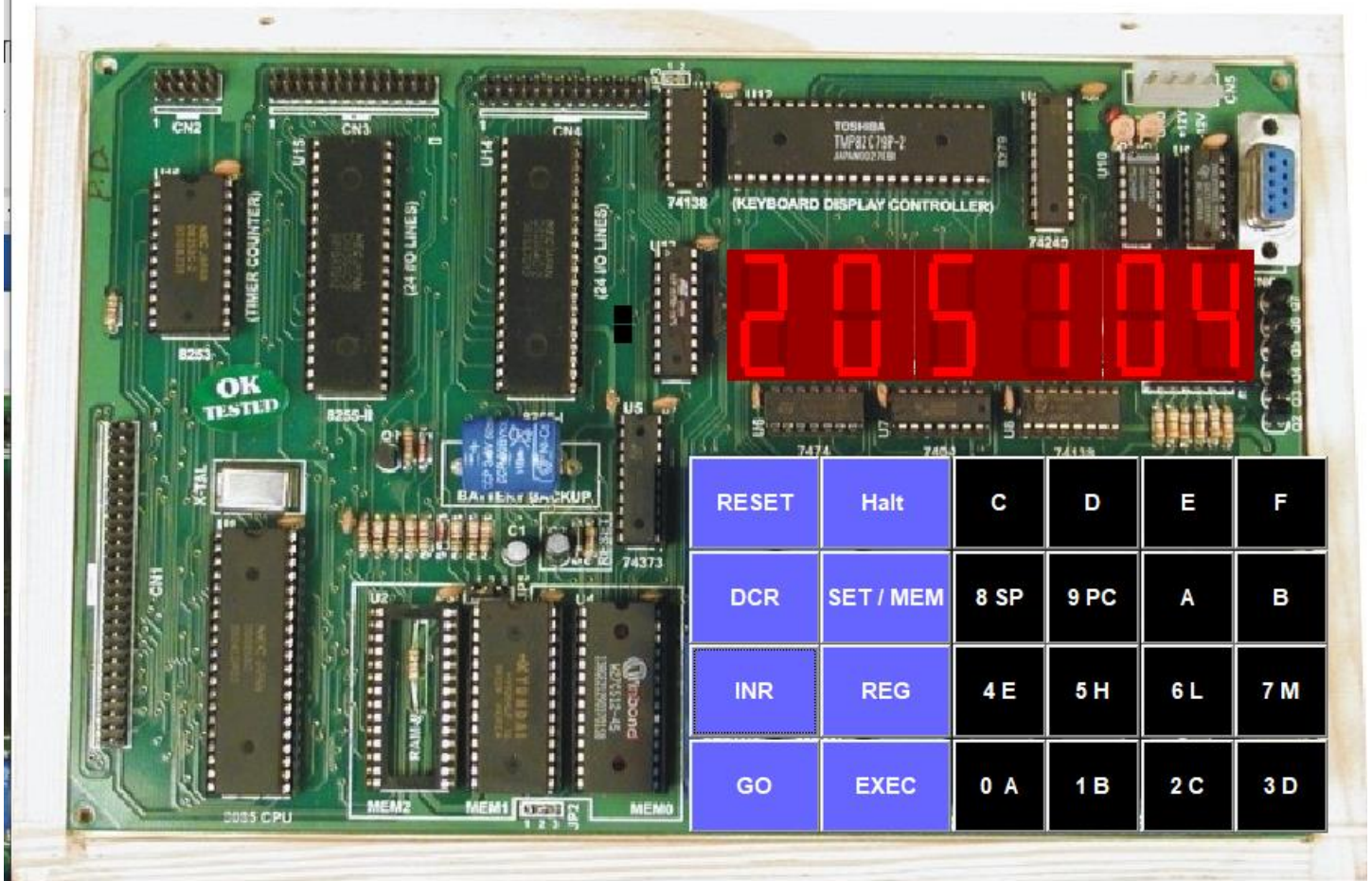
Below the table, there are three radio buttons for memory display options:

- ☐ Show entire memory content
- ☒ Show only loaded memory location
- ☐ Store directly to specified memory location

## 8085 MICROPROCESSOR TRAINER KIT



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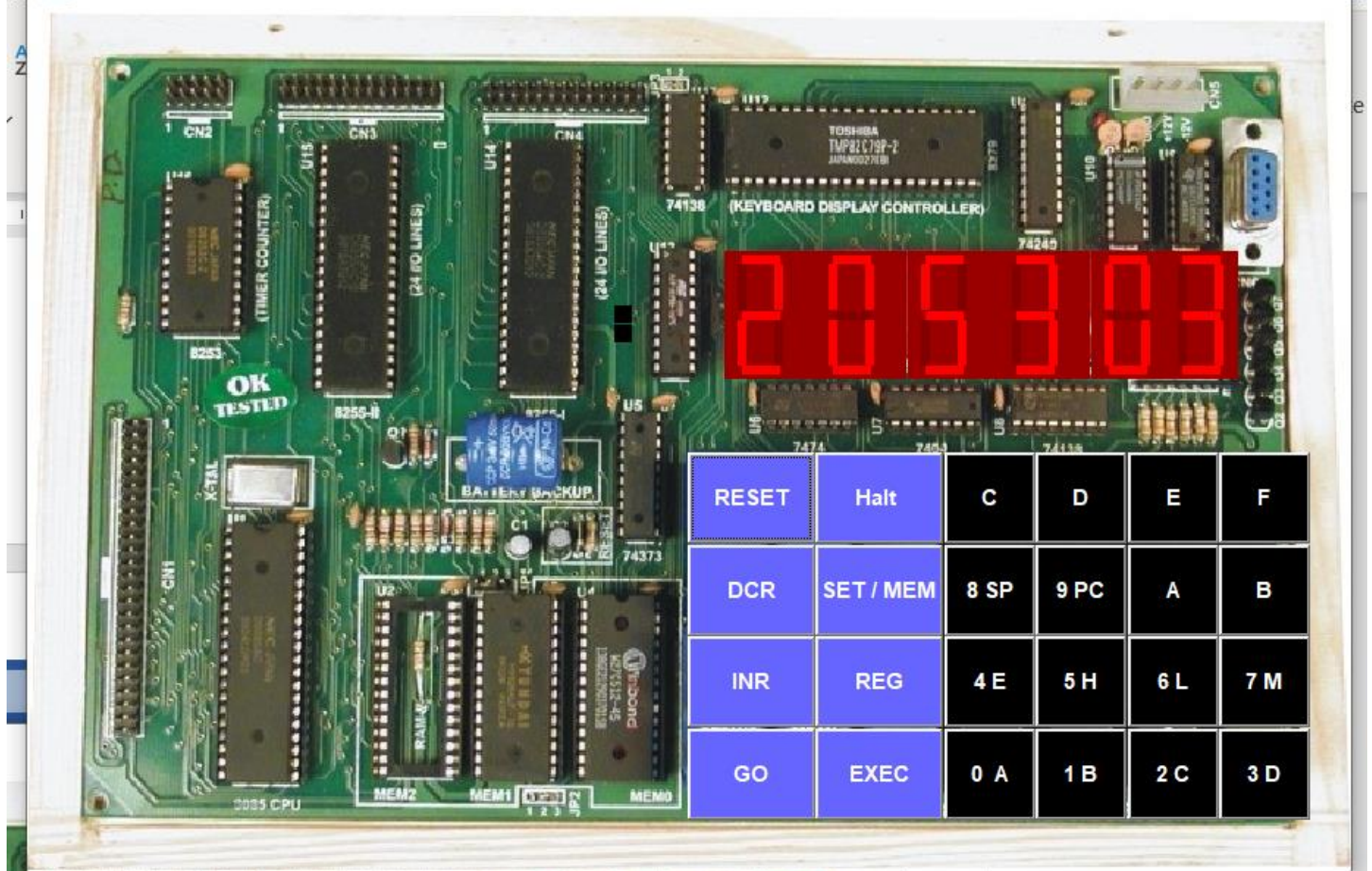




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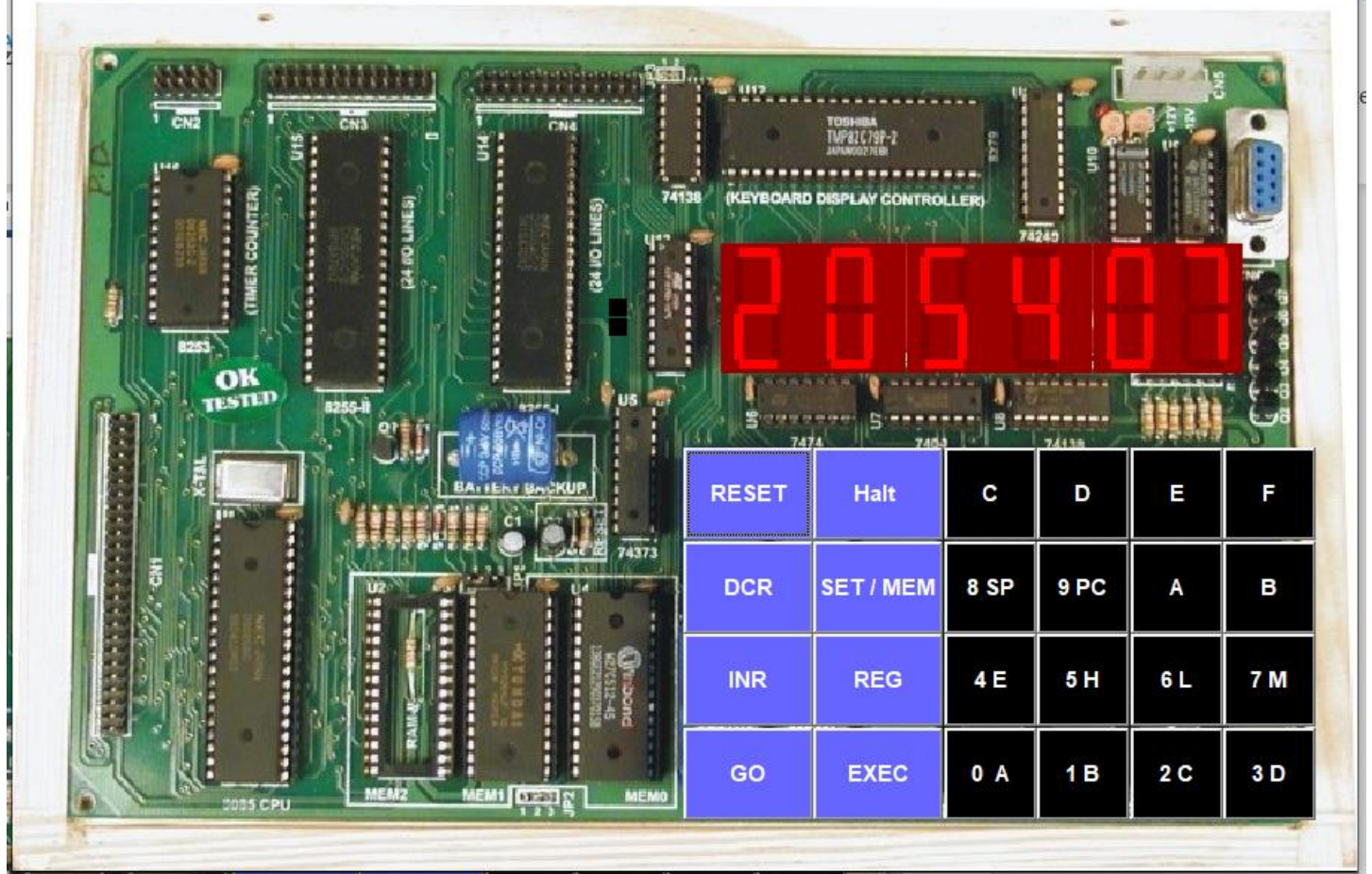


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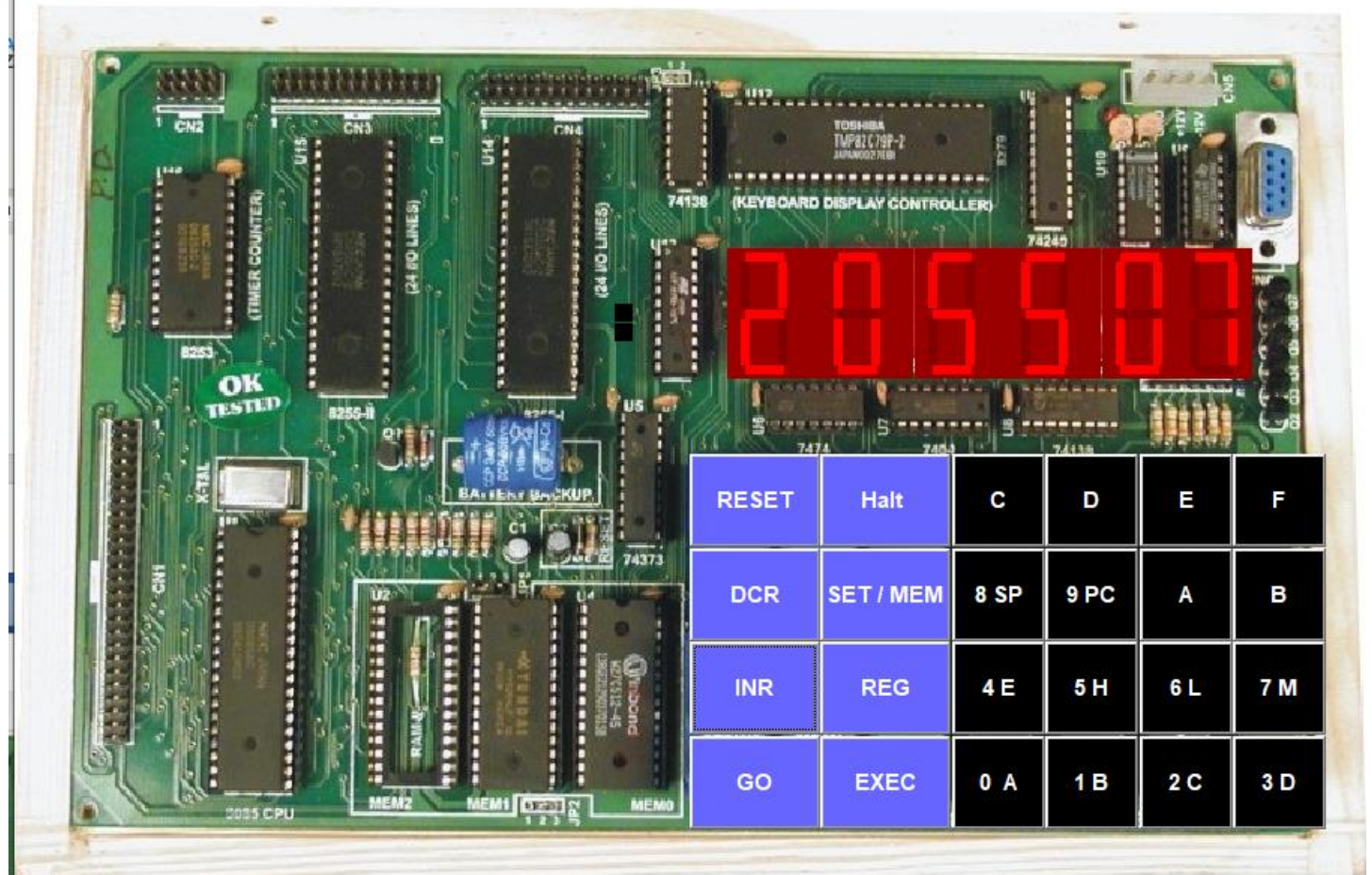
# 8085 MICROPROCESSOR TRAINER KIT



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



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