Write a program in 8085 Assembly language to divide a 16-bit number by an 8-bit number.

| Address | Assembly Code | Hex Code | Comments |
|---|---|---|---|
| 0000 | LHLD 2050 | 2A<br>50<br>20 | Load hl pair register from memory location 2050h |
| 0003 | LDA 2052H | 3A<br>52<br>20 | Load into Accumulator from memory location 2052h |
| 0006 | MOV B, A | 47 | Move data (divisor) from accumulator to B register |
| 0007 | MVI C, 08H | 0E<br>08 | Move 8 to C |
| 0009 | BACK: DAD H | 29 | HL <- HL + HL |
| 000A | MOV A, H | 7C | Move data (LB of dividend) in H register to accumulator |
| 000B | SUB B | 90 | Subtract B register value from accumulator |
| 000C | JC NEXT | DA<br>11<br>08 | Jump if carry to Label NEXT |
| 000F | MOV H, A | 67 | Move data in accumulator to H register |
| 0010 | INR L | 2C | Increment L register by 1 |
| 0011 | NEXT: DCR C | 0D | Decrease register C by 1 |
| 0012 | JNZ BACK | C2<br>09<br>08 | Jump to Label BACK if C not zero |
| 0015 | SHLD 2053H | 22<br>53<br>20 | Store HL register pair in memory location 2053h |
| 0018 | HLT | 76 | Halt |

**Procedure:**

Step – 1: Writing program in memory.

1. Press Reset
2. Press SET/MEM
3. Type in Address 0000
4. Press Enter
5. Type 1st Hex Code (Here 21)
6. Press Enter
7. Follow step 5 and 6 to type in all Hex Code

Step – 2: Assigning Value to the Address Location

1. Press Reset
2. Press SET/MEM

3. Type in Address of 1st Location (Here 2050)
4. Press Enter
5. Enter value of Dividend (LB)
6. Press Enter
7. Enter value of Dividend (UB)
8. Press Enter
9. Enter value of Divisor

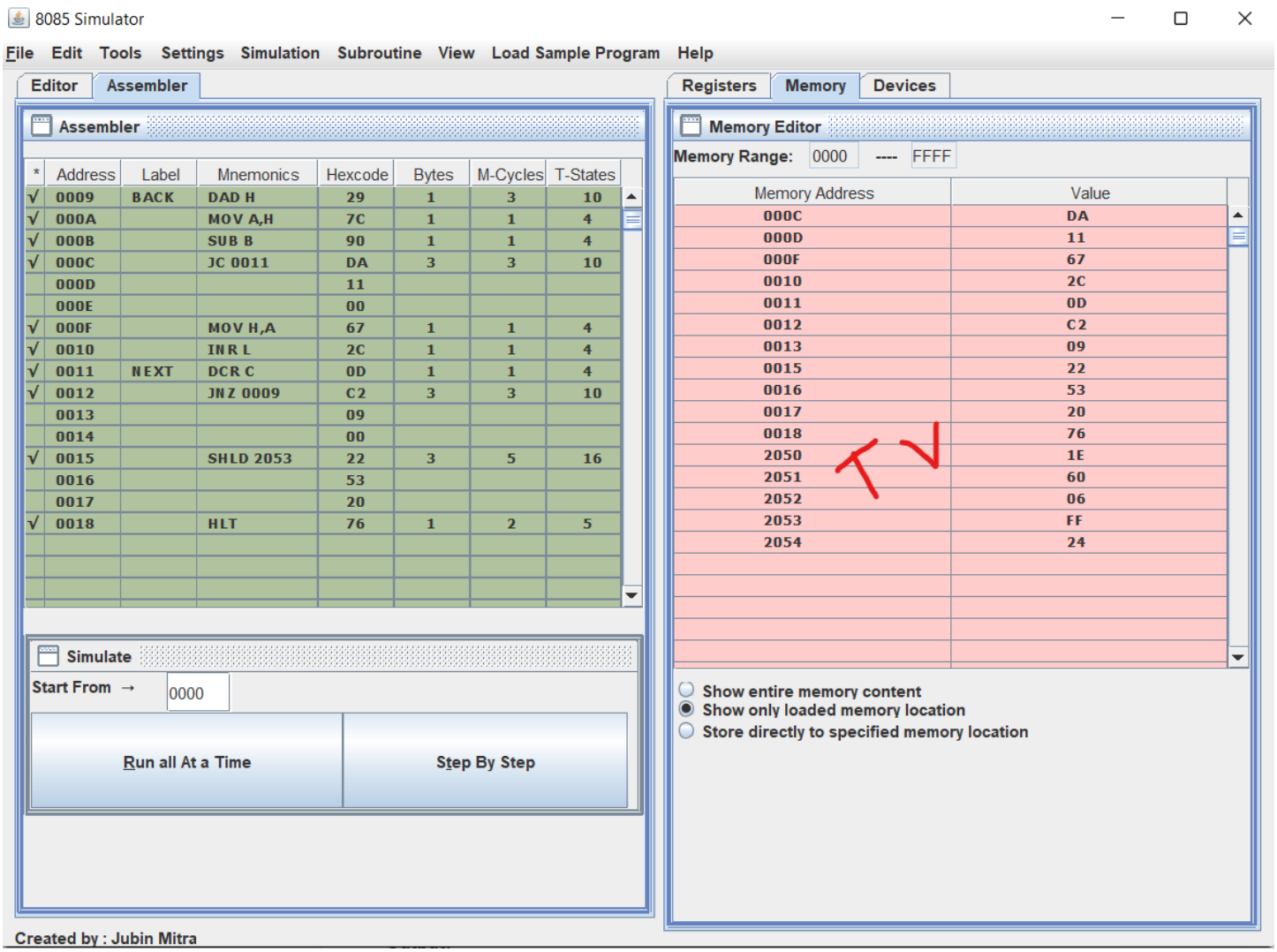
Step – 3: Executing the program

1. Press Reset to clear Buffer
2. Press Go
3. Enter Starting Address of Program (Here 0000)
4. Press Execute

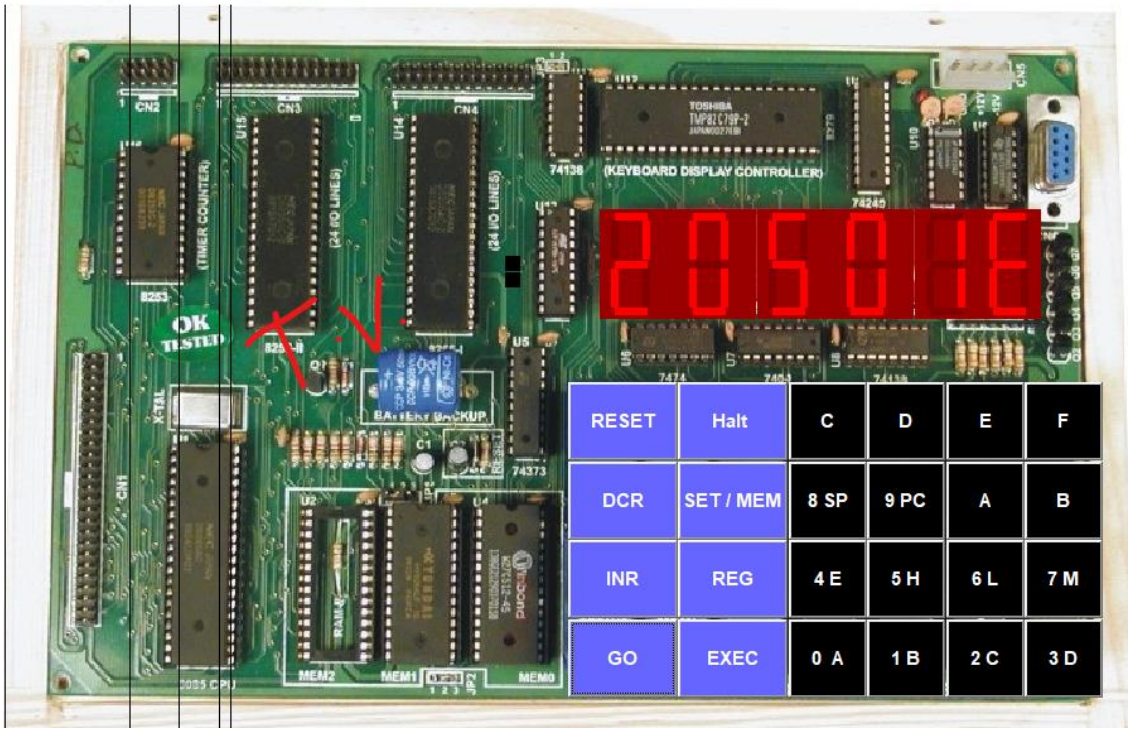
Step – 4: Checking output

1. Press reset and Clear the Buffer
2. Press Go
3. Enter Result Location (Here 2053 for quotient and 2054 for Remainder)
4. You will find the product of the numbers

**Output:**



8085 MICROPROCESSOR TRAINER KIT

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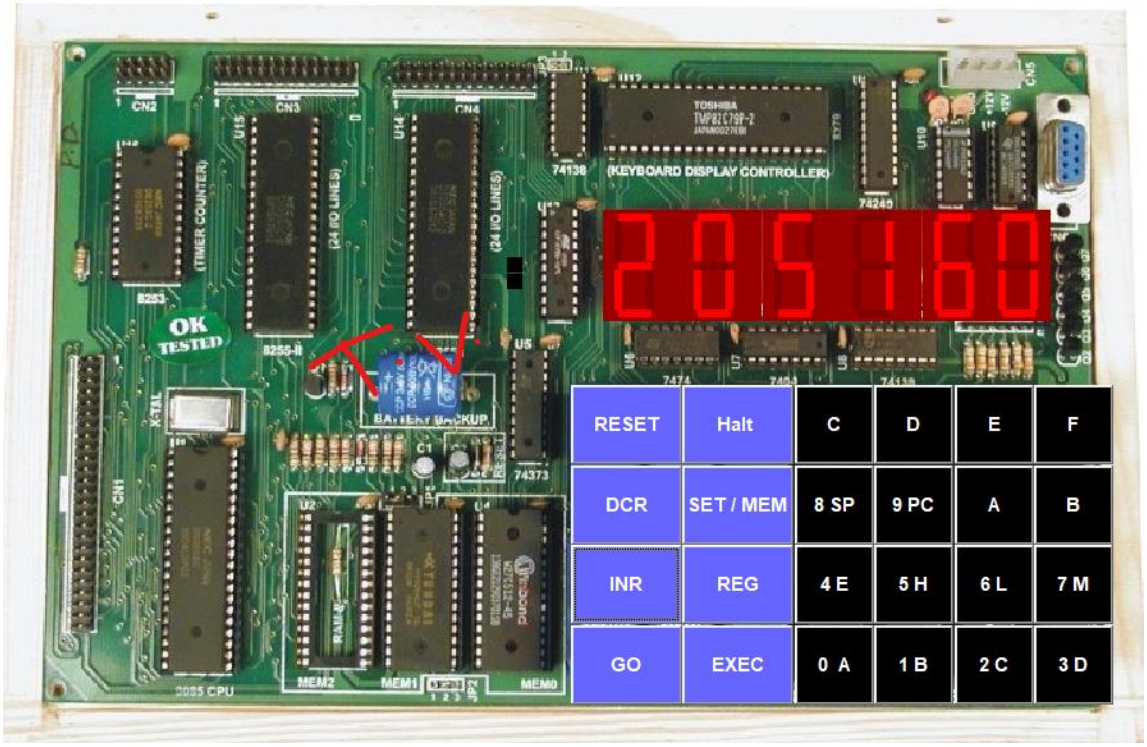

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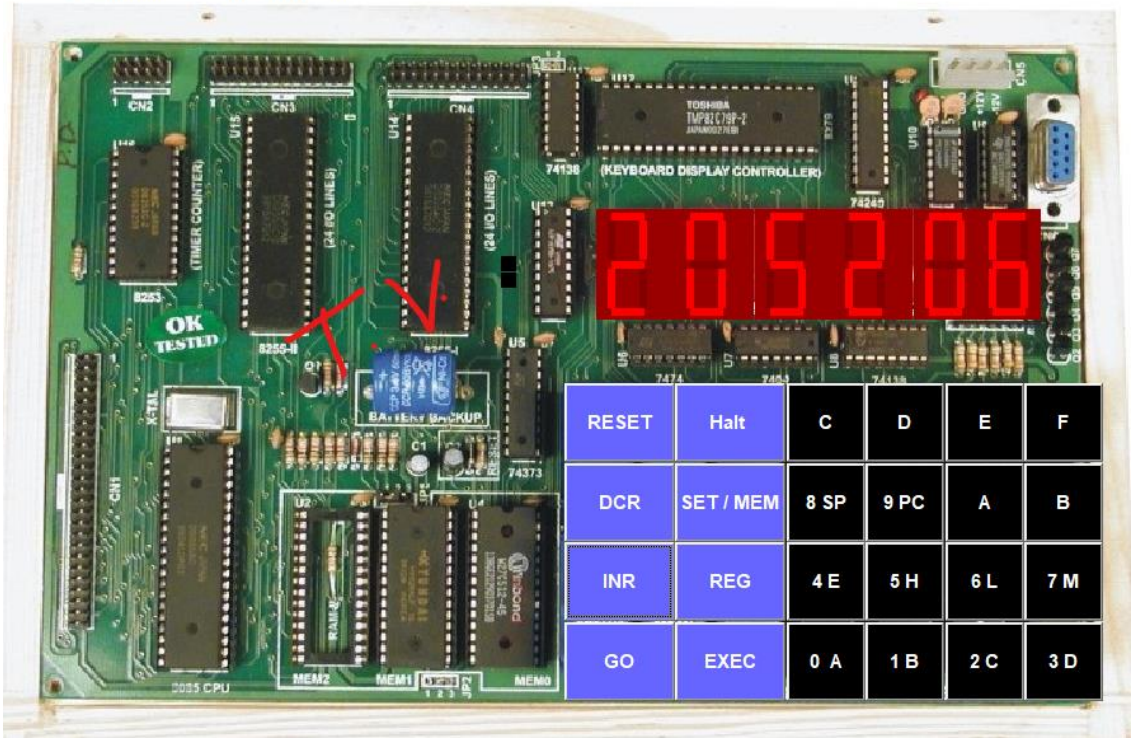


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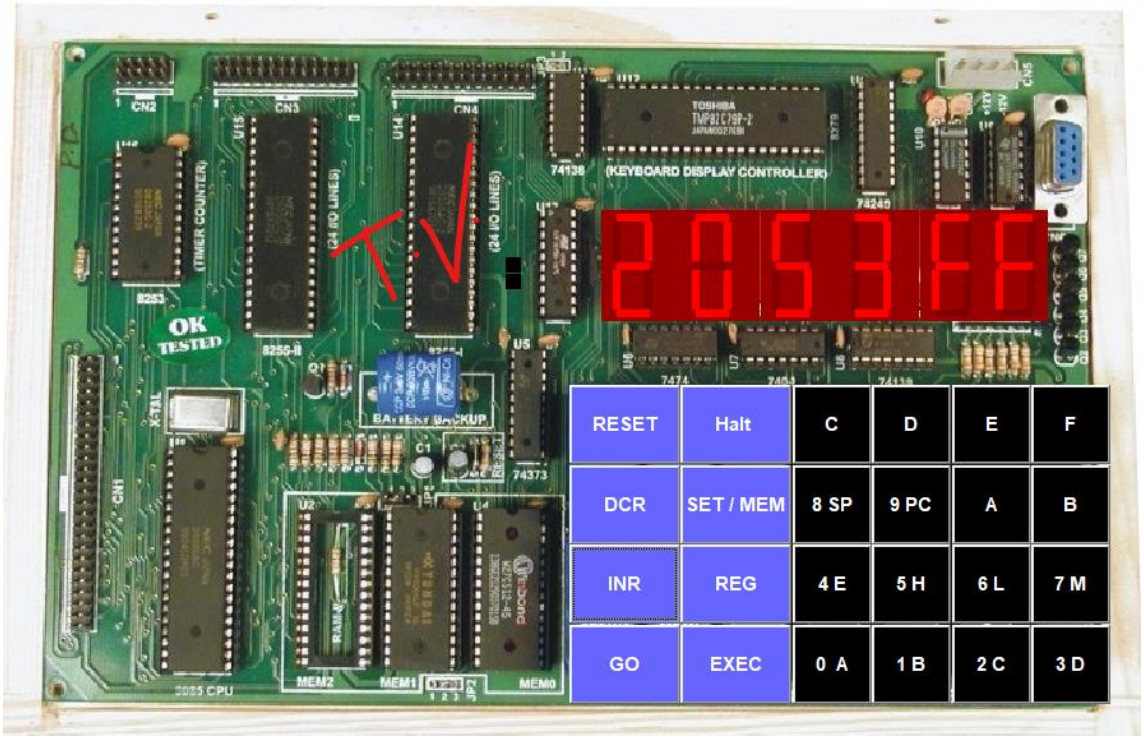

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