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| **Example Table (for your program)** |
| |  |  |  | | --- | --- | --- | | **Assembly Instruction** | **Machine Code (Hex)** | **Step-by-Step Entry / Flow** | | MOV AX, 0Eh | B8 0E 00 | RESET → DA → B → 8 → + → 0 → E → 0 → + → C → C → STP → GO | | MOV BX, 0Eh | BB 0E 00 | DA → B → B → + → 0 → E → 0 → + → C → C → STP → GO | | MUL BX | F7 E3 | DA → F → 7 → + → E → 3 → + → C → STP → GO | | MOV [2008], AX | A3 D8 07 | DA → A → 3 → + → D → 8 → 0 → 7 → + → C → STP → GO | | MOV BX, 3 | BB 03 00 | DA → B → B → + → 0 → 3 → 0 → 0 → + → C → STP → GO | | MUL BX | F7 E3 | DA → F → 7 → + → E → 3 → + → C → STP → GO | | MOV [2002], AX | A3 D2 07 | DA → A → 3 → + → D → 2 → 0 → 7 → + → C → STP → GO | | MOV AX, 0Eh | B8 0E 00 | DA → B → 8 → + → 0 → E → 0 → 0 → + → C → STP → GO | | MOV BX, 2 | BB 02 00 | DA → B → B → + → 0 → 2 → 0 → 0 → + → C → STP → GO | | MUL BX | F7 E3 | DA → F → 7 → + → E → 3 → + → C → STP → GO | | MOV BX, AX | 89 C3 | DA → 8 → 9 → + → C → 3 → + → C → STP → GO | | ADD BX, [2002] | 03 1E D2 07 | DA → 0 → 3 → + → 1 → E → D → 2 → 0 → 7 → + → C → STP → GO | | SUB BX, 5 | 83 EB 05 | DA → 8 → 3 → + → E → B → 0 → 5 → + → C → STP → GO | | MOV AX, [2008] | A1 D8 07 | DA → A → 1 → + → D → 8 → 0 → 7 → + → C → STP → GO | | MOV DX, 2 | BA 02 00 | DA → B → A → + → 0 → 2 → 0 → 0 → + → C → STP → GO | | MUL DX | F7 E2 | DA → F → 7 → + → E → 2 → + → C → STP → GO | | SUB AX, 1 | 83 E8 01 | DA → 8 → 3 → + → E → 8 → 0 → 1 → + → C → STP → GO | | MOV DX, AX | 89 D0 | DA → 8 → 9 → + → D → 0 → + → C → STP → GO | | MOV AX, BX | 89 D8 | DA → 8 → 9 → + → D → 8 → + → C → STP → GO | | MOV BX, DX | 89 D3 | DA → 8 → 9 → + → D → 3 → + → C → STP → GO | | XOR DX, DX | 31 D2 | DA → 3 → 1 → + → D → 2 → + → C → STP → GO | | DIV BX | F7 F3 | DA → F → 7 → + → F → 3 → + → C → STP → GO | |