Experiment 10
Class: SE Comp
Year: 2020-21
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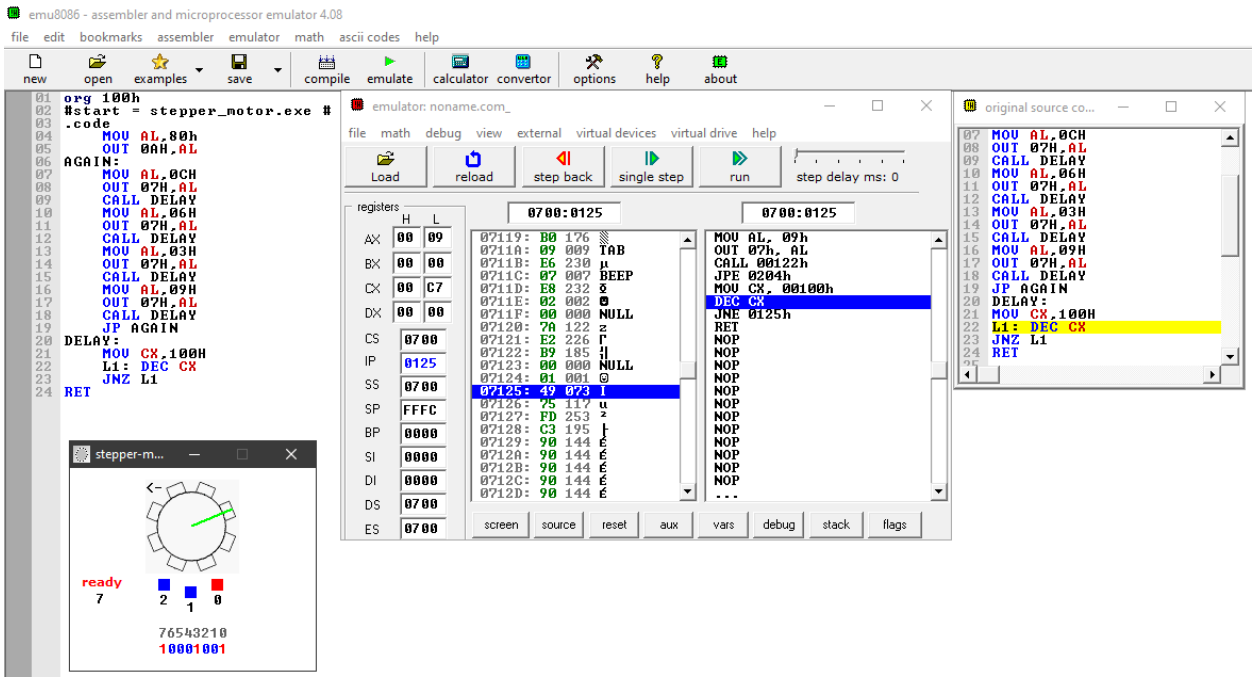
Control stepper motor by sending data to I/O port:

Code:

```
org 100h
#start = stepper_motor.exe #
.code
    MOV AL,80h
    OUT 0AH,AL
AGAIN:
    MOV AL,0CH
    OUT 07H,AL
    CALL DELAY
    MOV AL,06H
    OUT 07H,AL
    CALL DELAY
    MOV AL,03H
    OUT 07H,AL
    CALL DELAY
    MOV AL,09H
    OUT 07H,AL
    CALL DELAY
    JP AGAIN
DELAY:
    MOV CX,100H
    L1: DEC CX
    JNZ L1
RET
```

Output:



Conclusion:

We successfully implemented controlling a stepper motor by sending data to the I/O port using an assembly language program

Experiment 10

Aim : To write an assembly language program to control stepper motor by sending data to I/O port

Software : Emulator 8086

Theory :

- The stepper motor is a special type of motor which is designed through a specific angle called step for each electrical pulse received from its control unit.

- The input is given in the form of train of pulses to turn the shaft through a specified angle.

- The main unit is designed to interface with the 8086 kit.

Algorithm :

- Start the program
- Switch on bit 0
- Send data to I/O port 7
- call delay for set counts, go to step 12
- Switch on bit 0 & bit 1
- Send data to I/O port 7
- Call delay for set counter, Go to step 12

- Switch on bit 1 & bit 2
- Send data to I/O port 7
- Call delay for set counter, Go to step 12
- Check for even. printy & go to step 2
- Delay for certain period of time

Flow Chat :