Interfacing 4-pole stepper motor with 8088 CPU through 8255 PPI.

Consider a 4-pole stepper motor interfaced with 8255 PPI Port A (Bit 0 to Bit 3). PPI has addresses from A0H to A3H. Write assembly language code that runs the stepper motor in full-step mode.

```
START:
            MOV   AL, 80H     ;PORTA AS OUTPUT
            OUT   0A3H, AL    ;WRITE BYTE TO PPI'S CW REGISTER
RUN_MOTOR:
            MOV   AL, 01H     ;ENERGISE POLE 1 ONLY
            OUT   0A0H, AL    ;WRITE VALUE TO PORTA'S LOWER HALF
            CALL  DELAY
            MOV   AL, 02H     ;ENERGISE POLE 2 ONLY
            OUT   0A0H, AL    ;WRITE VALUE TO PORTA'S LOWER HALF
            CALL  DELAY
            MOV   AL, 04H     ;ENERGISE POLE 3 ONLY
            OUT   0A0H, AL    ;WRITE VALUE TO PORTA'S LOWER HALF
            CALL  DELAY
            MOV   AL, 08H     ;ENERGISE POLE 4 ONLY
            OUT   0A0H, AL    ;WRITE VALUE TO PORTA'S LOWER HALF
            CALL  DELAY
            JMP   RUN_MOTOR
;SUBROUTINE FOR CREATING DELAY BETWEEN EACH STEP
DELAY:
            MOV   CX, 0FFFFH
HERE:       LOOP  HERE
            RET
```

0000 0001
0000 0011
0000 0010
0000 0110
0000 00100
0000 1100
0000 1000

Schematic diagram: