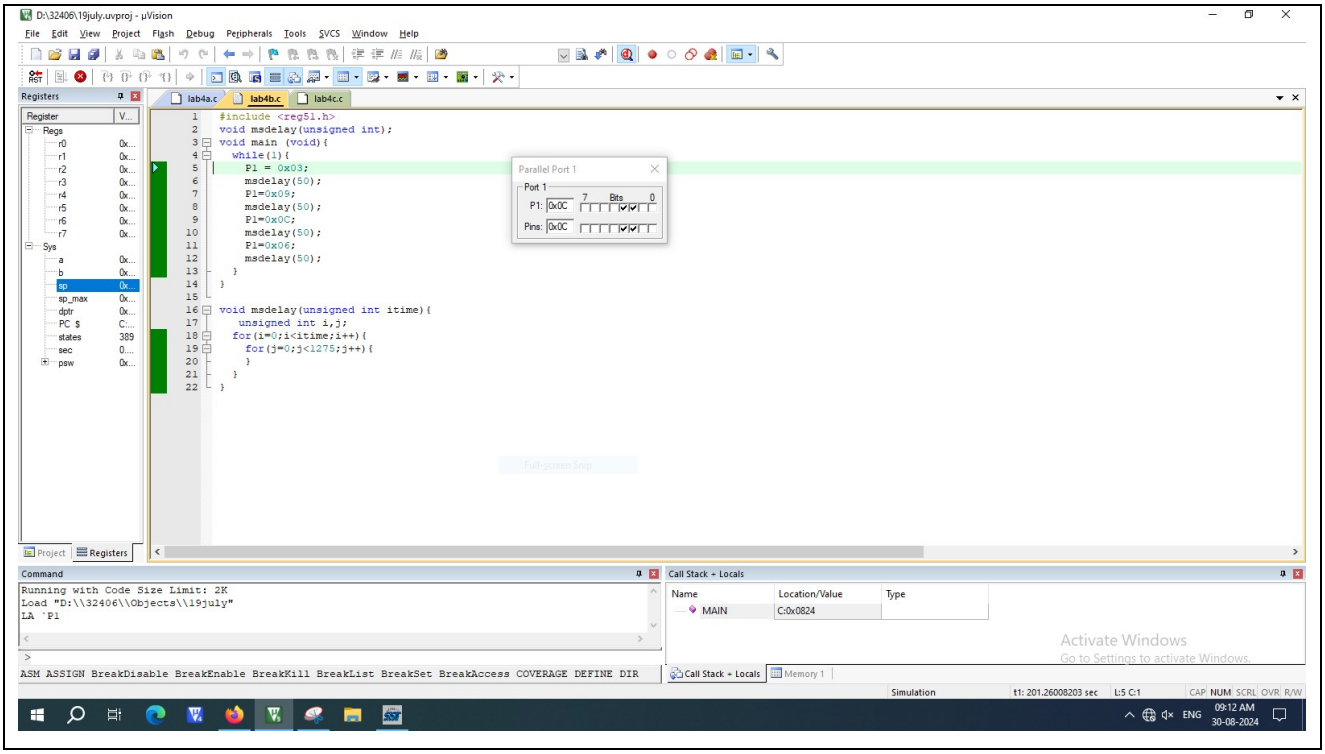
EXPT. NO.: 4

TITLE: Interfacing stepper motor with 89C51

Code 1 : Anticlockwise rotation

```
#include <reg51.h>
void msdelay(unsigned int);
void main (void){
   while(1){
      P1 = 0x03;
      msdelay(50);
      P1=0x09;
      msdelay(50);
      P1=0x0C;
      msdelay(50);
      P1=0x06;
      msdelay(50);
   }
}

void msdelay(unsigned int itime){
     unsigned int i,j;
   for(i=0;i<itime;i++){
      for(j=0;j<1275;j++){
      }
   }
}
```

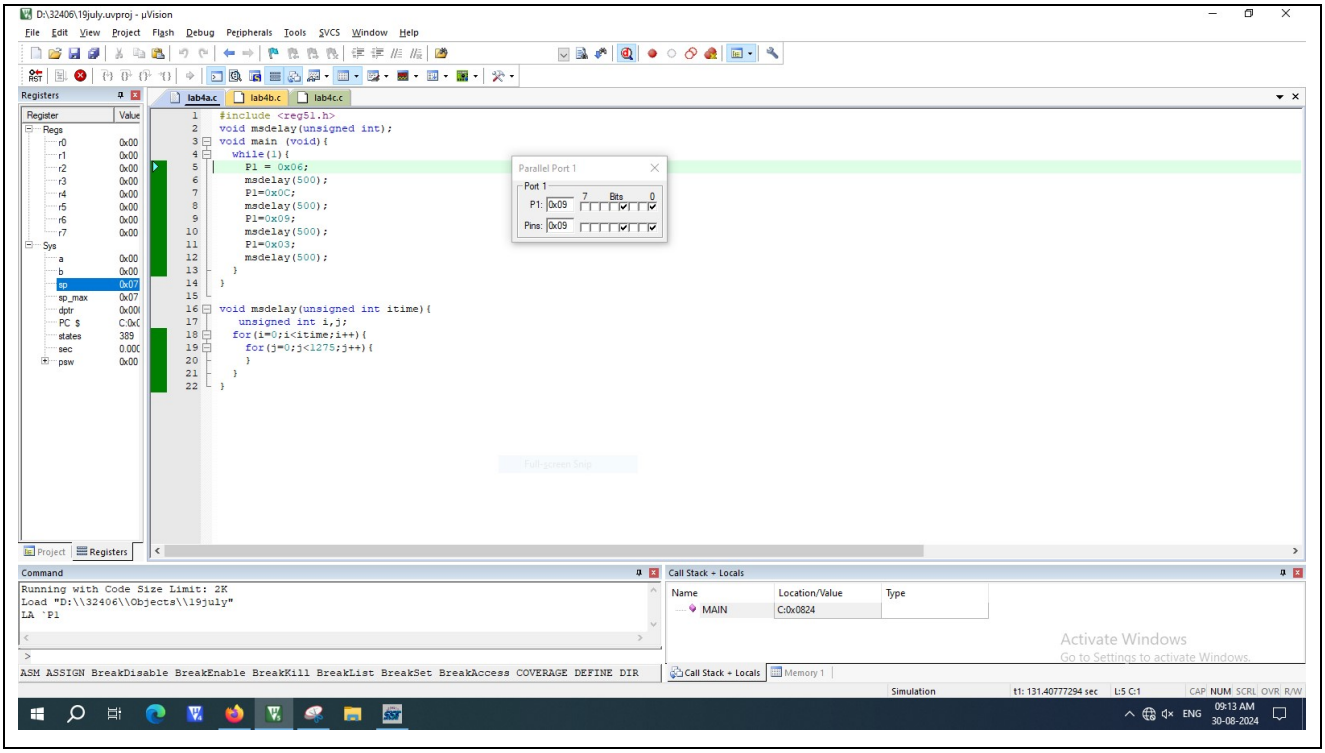


Code 2 : Clockwise rotation

```
#include <reg51.h>
void msdelay(unsigned int);
void main (void){
   while(1){
      P1 = 0x06;
      msdelay(500);
      P1=0x0C;
      msdelay(500);
      P1=0x09;
      msdelay(500);
      P1=0x03;
      msdelay(500);
   }
}

void msdelay(unsigned int itime){
      unsigned int i,j;
```

```
    for(i=0;i<itime;i++){
        for(j=0;j<1275;j++){
        }
    }
}
```



Code 3 : 90 degree rotation

```
#include <reg51.h>
void msdelay(unsigned int);
void main (void){
    unsigned int k;
    for(k = 0 ; k < 3 ; k++){
        P1 = 0x03;
        msdelay(50);
        P1=0x09;
        msdelay(50);
        P1=0x0C;
        msdelay(50);
        P1=0x06;
```

```
        msdelay(50);
    }
    msdelay(50000);
}

void msdelay(unsigned int itime){
        unsigned int i,j;
    for(i=0;i<itime;i++){
        for(j=0;j<1275;j++){
        }
    }
}
```