

# Experiment 1

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Roll No. 32302

#NON OVERLAP

ORG 0000H

MOV R0,#30H

MOV R1,#40H

MOV R7,#0AH

GO: MOV A,@R0

MOV @R1,A

INC R0

INC R1

djnz R7,GO

Here :SJMP Here

END

#OVERLAP

ORG 0000H

MOV R0,#39H

MOV R1,#34H

MOV R7,#0AH

GO: MOV A,@R0

MOV @R1,A

inc R0

inc R1

djnz R7,GO

Here :SJMP Here

END

# OVERLAP

org 0000h

MOV R0, #39H

MOV R1, #3EH

MOV R2, #0AH

UP :MOV A, @R0

MOV @R1, A

DEC R0

DEC R1

DJNZ R2, UP

END

## Output

The screenshot shows the "Memory 2" window in Visual Studio. The address bar displays "d:0x30". Below it, a grid of memory addresses and their corresponding hex values is shown:

Address	Hex Value
D:0x30:	01 20 03 40 05 06 07 08 90 10 00 00 00 00 00 00 00 00 00 00 00 00 00 00
D:0x47:	00 00
D:0x5E:	00 00
D:0x75:	00 00 00 00 00 00 00 00 00 00 00 FF 07 00 00 00 00 00 00 00 00 00 00 00 00
D:0x8C:	00 00 00 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 00 00
D:0xA3:	00 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 00 00 00 00 00 00 00 00 00 00
D:0xBA:	00 00
D:0xD1:	00 00
D:0xE8:	00 00
D:0xFF:	00 00

The bottom of the window has tabs for "Call Stack + Locals" and "Memory 2".

[illegible][illegible]

File Edit View Project Flash Debug Peripherals Tools SVCS Window Help

Registers

Register	Value
r0	0x00
r1	0x00
r2	0x00
r3	0x00
r4	0x00
r5	0x00
r6	0x00
r7	0x00
Sys	
a	0x00
b	0x00
sp	0x00
sp_max	0x00
dsp	0x0000
PC	0x0000
status	389
sec	0.00019450
psw	0x00

Disassembly

```
2: void main () {
3:   unsigned char *src, *dest;
4:   unsigned int n;
5:   src = 0x30;
6:   MOV 0x0000, 0x00, 0x00
7:   ...
8:   ...
9:   ...
10:  ...
11:  ...
12: }
```

explic explam

```
1: include <reg51.h>
2: void main () {
3:   unsigned char *src, *dest;
4:   unsigned int n;
5:   src = 0x30;
6:   dest = 0x2A;
7:   for (n=0;n<10;n++) {
8:     *dest = *src;
9:     src++;
10:    dest++;
11:  }
12: }
```

Command

Running with Code Size Limit: 2K  
Load "D:\\Object\\exp4"

Memory 2

Address: 0x0000

Address	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
C10x0030:	01	02	03	04	05	06	07	01	02	03	04	05	06	07	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x004B:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x0066:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x0081:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x009C:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x00B7:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
C10x00D2:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	

ASM ASSIGN BreakDisable BreakEnable BreakFill BreakList BreakSet BreakAccess COVTOFILE