

EXPERIMENT 6 HEX TO ASCII

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Code:

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1 ; HEX TO ASCII conversion
2     MOV R0, #0FFH ; value to be converted
3     MOV A, R0     ; store the value in A
4     MOV B, #64H   ; to be divided for MSB
5     DIV AB        ; divide for 100th place
6     ADD A, #30H   ; convert to ascii
7     MOV R1, A     ; store MSB in R1
8     MOV A, B      ; load A with remainder
9     MOV B, #0AH   ; 10 is the divider
10    DIV AB        ; divide for tenth place
11    ADD A, #30H   ; convert to ascii
12    MOV R2, A     ; store in R2
13    MOV A, B      ;
14    ADD A, #30H   ; convert to ascii
15    MOV R3, A     ; store in R2
16    MOV P0, R1    ; show results in ports
17    MOV P1, R2    ;
18    MOV P2, R3    ;
19    END           ; result in R1 and R2
20

```

Output:

| | |
|----------|---|
| Address: | i:00 |
| I:0x00: | FF 32 35 35 00 00 00 00 00 00 00 00 00 00 |
| I:0x14: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x28: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x3C: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x50: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x64: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x78: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0x8C: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| I:0xA0: | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |

Parallel Port 0

Port 0

P0: 0x32

7 Bits 0

Pins: 0x32

7 Bits 0

Parallel Port 1

Port 1

P1: 0x35

7 Bits 0

Pins: 0x35

7 Bits 0

Parallel Port 2

Port 2

P2: 0x35

7 Bits 0

Pins: 0x35

7 Bits 0

| Register | Value |
|----------|---------|
| Regs | |
| r0 | 0xff |
| r1 | 0x32 |
| r2 | 0x35 |
| r3 | 0x35 |
| r4 | 0x00 |
| r5 | 0x00 |
| r6 | 0x00 |
| r7 | 0x00 |
| Sys | |
| a | 0x35 |
| b | 0x05 |
| sp | 0x07 |
| sp_max | 0x07 |
| dpnr | 0x0000 |
| PC \$ | C:0x001 |
| states | 28 |
| sec | 0.00001 |
| psw | 0x00 |