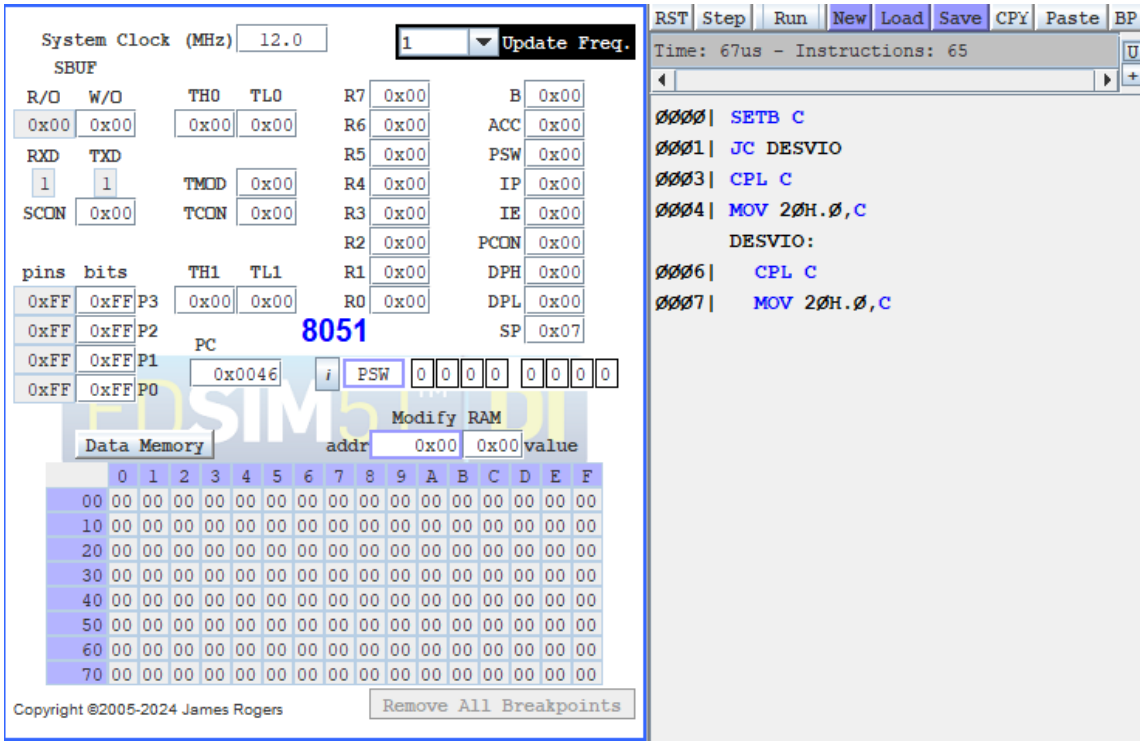
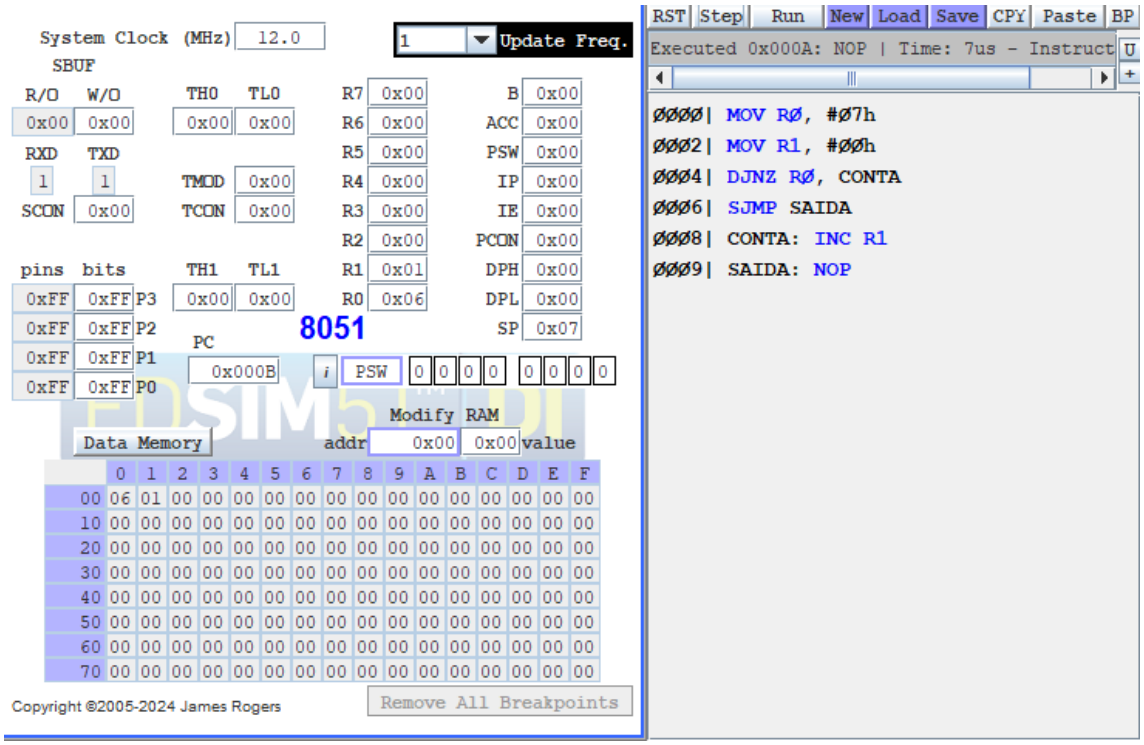
Aula 5 – Arquitetura e organização de computadores

Exercício 1:



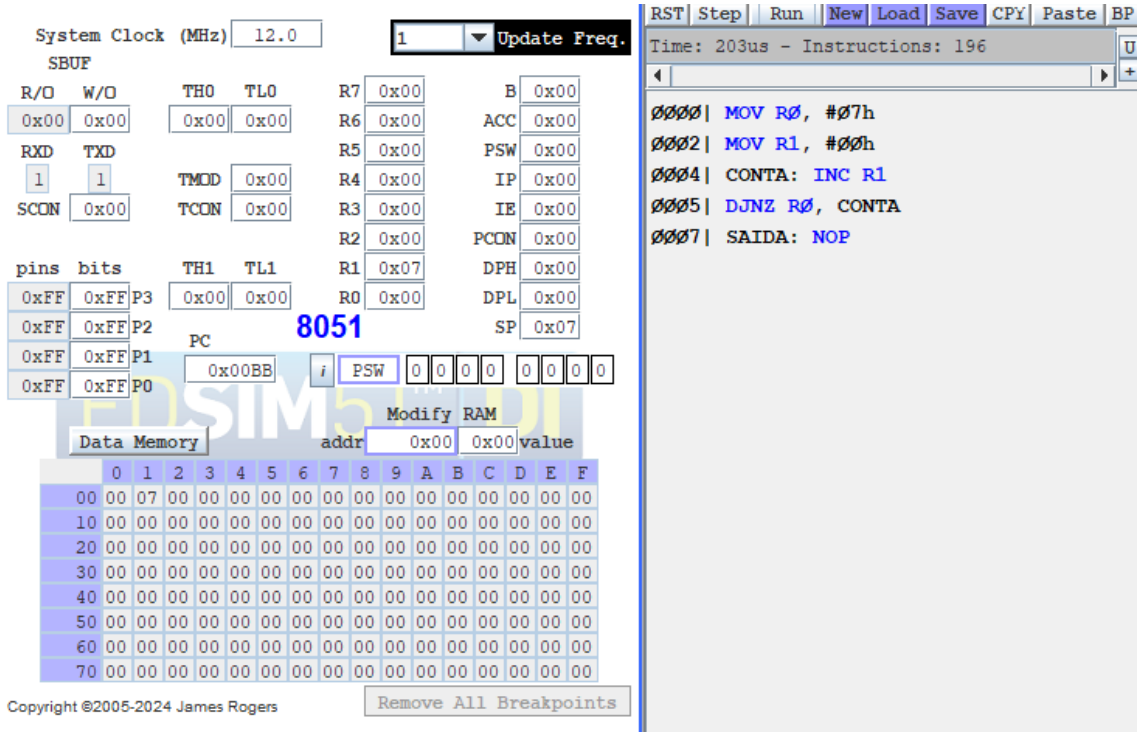
O valor de 20H.0 após o programa em assembly será 0.

Exercício 2:



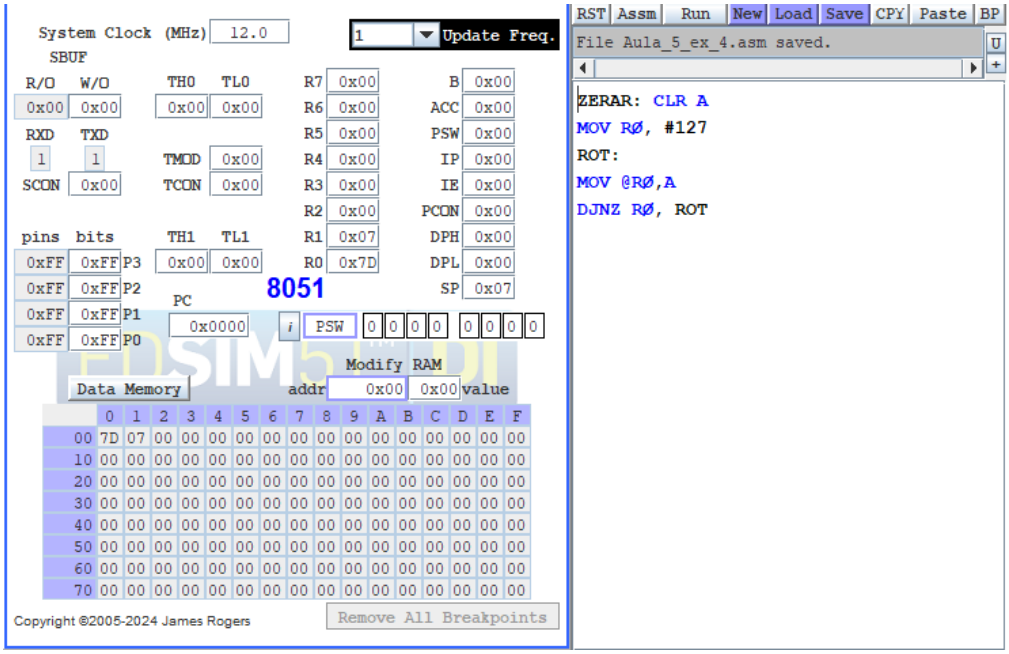
O valor do registrador 1 será: 1, após o valor ser decrementado do registrador 0 e ir para o laço “CONTA:” e incrementar 1 em R1.

Exercício 3:

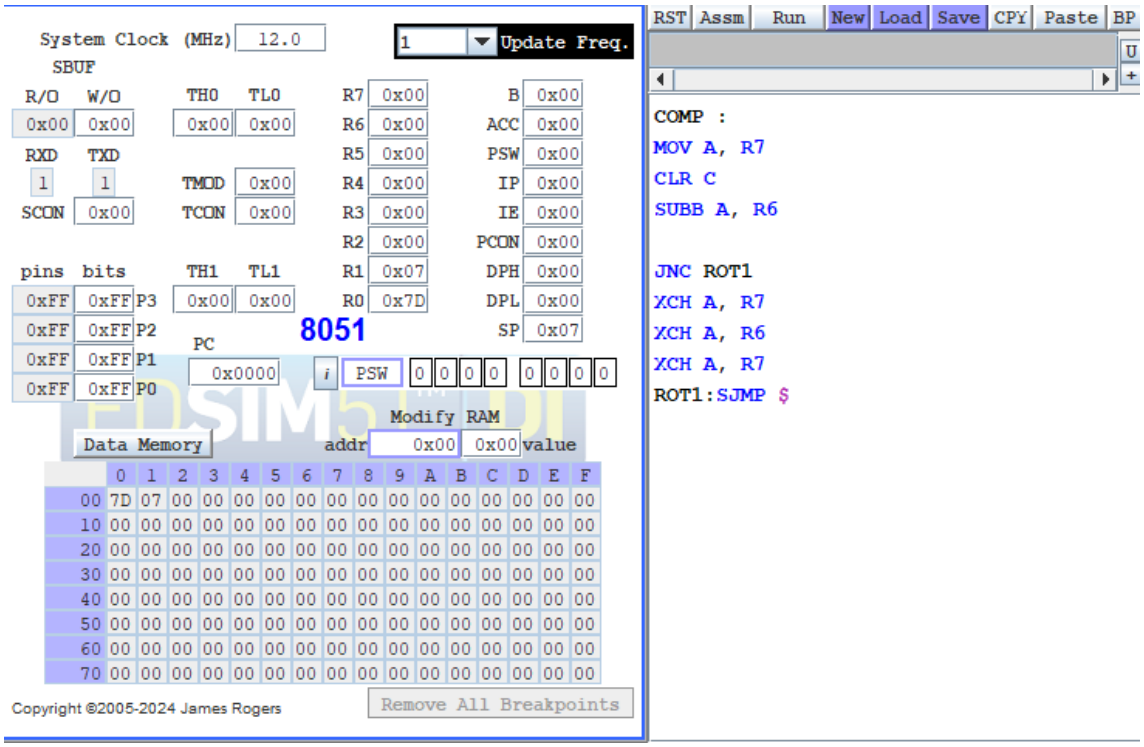


O valor do registrador R1 será: 7 no final do código assembly, pois no loop a conta vai incrementando o valor no registrador enquanto vai decrementando o valor do registrador(0), quando o valor do registrador(0) chega a 0 ele para o laço de repetição.

Exercício 4:



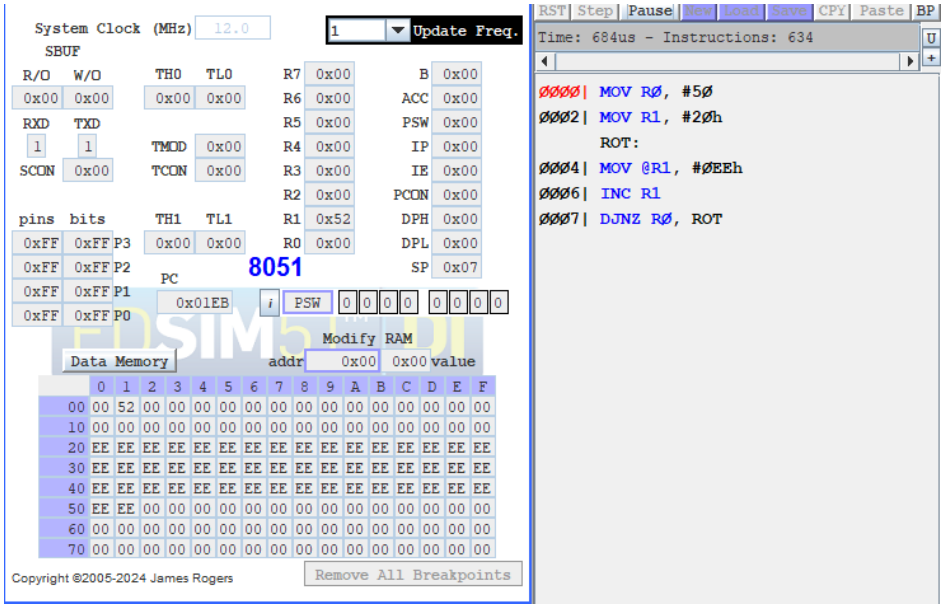
Exercício 5:



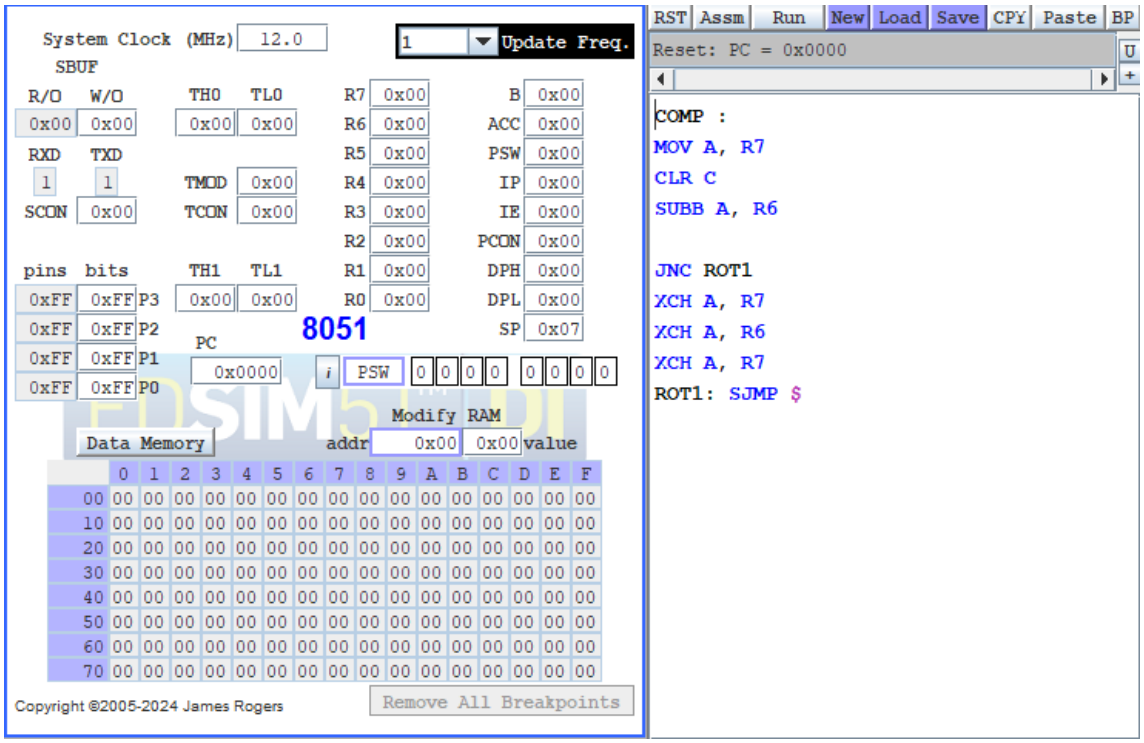
Instrução	OPCODE
MOV A,R7	EF
CLR C	C3
SUBB A,R6	9E
JNC R0T1	**50**

Instrução	OPCODE
XCH A,R7	CF
XCH A,R6	**CE**
XCH A,R7	**CF**
SJMP $	**80**

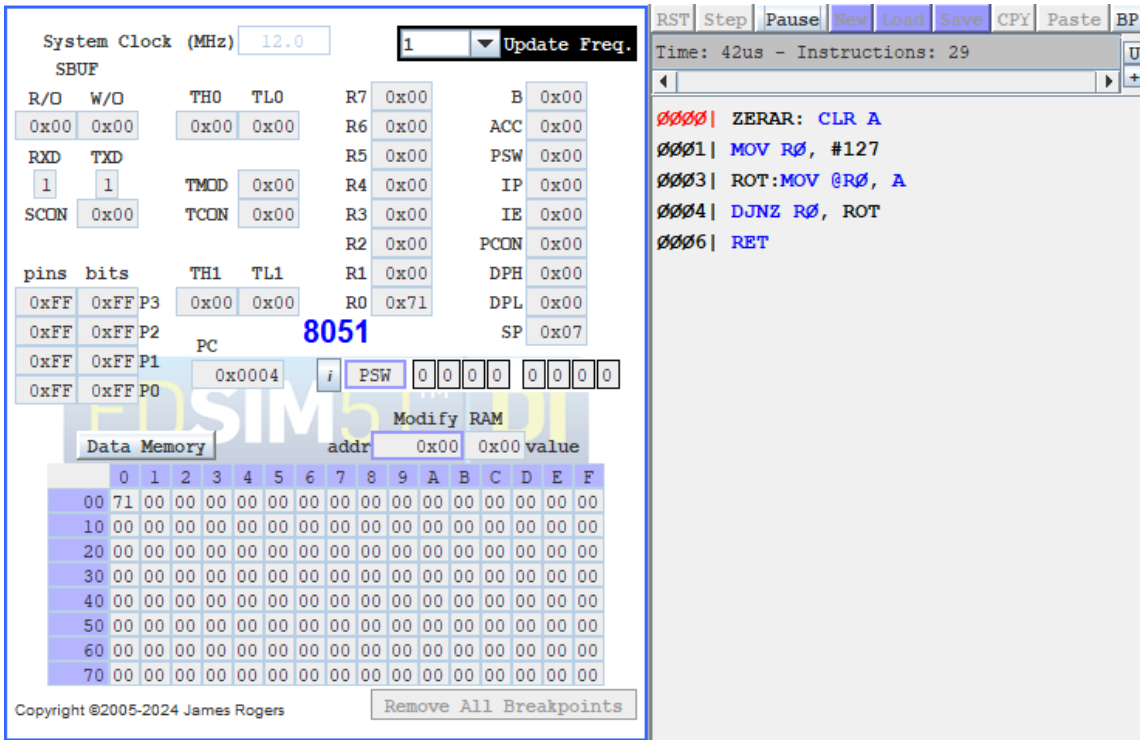
Exercício 6:



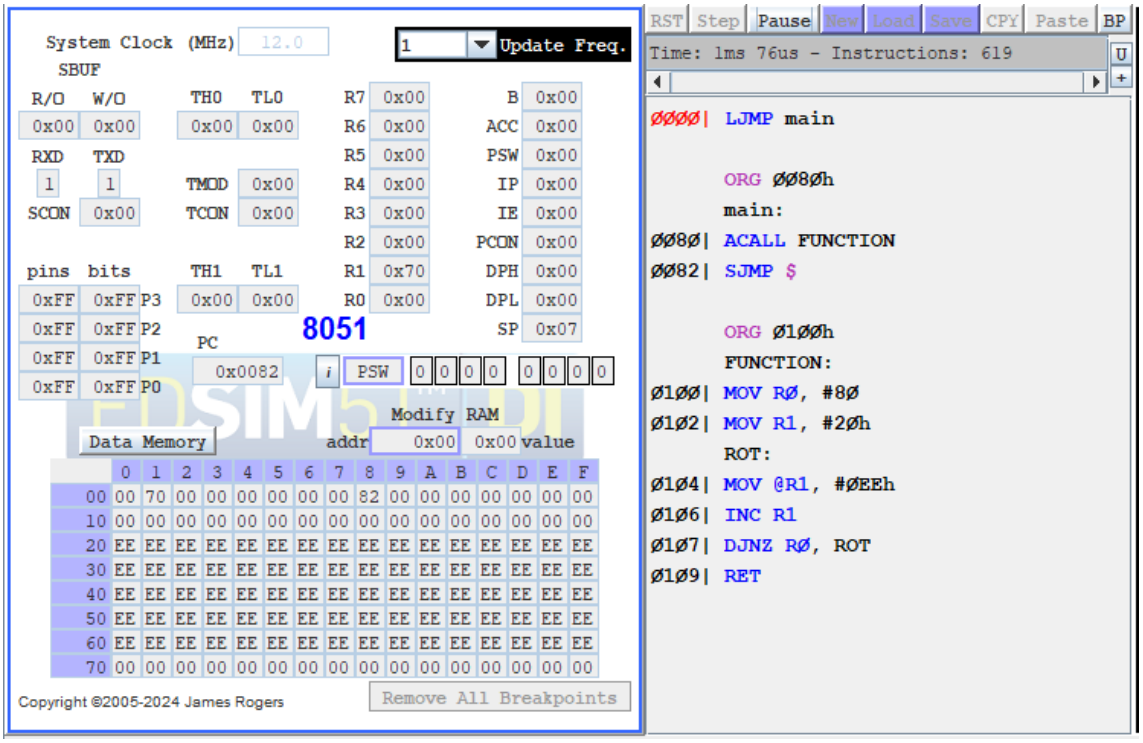
Exercício 7:



Exercício 8:



Exercício 9:


System Clock (MHz) 12.0
1
Update Freq.
SBUF
R/O W/O
0x00 0x00
RXD TXD
1 1
SCON 0x00
TH0 TL0
0x00 0x00
TMOD 0x00
TCON 0x00
TH1 TL1
0x00 0x00
R7 0x00
R6 0x00
R5 0x00
R4 0x00
R3 0x00
R2 0x00
R1 0x70
R0 0x00
B 0x00
ACC 0x00
PSW 0x00
IP 0x00
IE 0x00
PCON 0x00
DPH 0x00
DPL 0x00
SP 0x07
pins bits
0xFF 0xFF P3
0xFF 0xFF P2
0xFF 0xFF P1
0xFF 0xFF P0
8051
PC
0x0082
i
PSW 0 0 0 0 0 0 0 0
Modify RAM
Data Memory
addr 0x00 0x00 value
0 1 2 3 4 5 6 7 8 9 A B C D E F
00 00 70 00 00 00 00 00 00 82 00 00 00 00 00 00 00
10 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
20 EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE
30 EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE
40 EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE
50 EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE
60 EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE EE
70 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
Copyright ©2005-2024 James Rogers
Remove All Breakpoints
RST Step Pause New Load Save CPY Paste BP
Time: 1ms 76us - Instructions: 619
U
+
ØØØØ| LJMP main
ORG ØØ8Øh
main:
ØØ8Ø| ACALL FUNCTION
ØØ82| SJMP $
ORG Ø1ØØh
FUNCTION:
Ø1ØØ| MOV RØ, #8Ø
Ø1Ø2| MOV R1, #2Øh
ROT:
Ø1Ø4| MOV @R1, #ØEEh
Ø1Ø6| INC R1
Ø1Ø7| DJNZ RØ, ROT
Ø1Ø9| RET