

This is a trivial example of assembling and testing a program. It should work for anyone logged in to rabbit. It shows every keypress, even down to the ↵ being used to show when I press ENTER. What I type is in **bold**, everything else came from the computer. This sample shows just entering a program, assembling it, and single-stepping through it. For anything else, see the proper documentation.

```
$ pico testprog.ass ↵
↵
    .makeexe↵
↵
    load    r1, 1    ↵
loop:  load    r2, 34 ↵
    mul     r1, r2   ↵
    inc     r1       ↵
    jump    loop    ↵
↵
$ assemble testprog ↵
$ emulator testprog ↵
No 'system.setup' in currecnt directory, reading '/usr/local/bin/system.setup'
instead
disc 1 from file 'maindrive.disc', 6000 blocks
set SP to 0x80000000
set PC to 0x00000400
load file 'testprog.exe' starting at 0x00000400
> ↵
R0 = 0      R4 = 0      R8 = 0      R12= 0
R1 = 0      R5 = 0      R9 = 0      SP = 0x80000000
R2 = 0      R6 = 0      R10= 0     FP = 0x00000000
R3 = 0      R7 = 0      R11= 0     PC = 0x00000400
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000400: (02100001)  LOAD    R1, 1    > ↵

R0 = 0      R4 = 0      R8 = 0      R12= 0
R1 = 1      R5 = 0      R9 = 0      SP = 0x80000000
R2 = 0      R6 = 0      R10= 0     FP = 0x00000000
R3 = 0      R7 = 0      R11= 0     PC = 0x00000401
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000401: (02200022)  LOAD    R2, 34   > ↵

R0 = 0      R4 = 0      R8 = 0      R12= 0
R1 = 1      R5 = 0      R9 = 0      SP = 0x80000000
R2 = 34     R6 = 0      R10= 0     FP = 0x00000000
R3 = 0      R7 = 0      R11= 0     PC = 0x00000402
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000402: (10120000)  MUL     R1, R2   > ↵

R0 = 0      R4 = 0      R8 = 0      R12= 0
R1 = 34     R5 = 0      R9 = 0      SP = 0x80000000
R2 = 34     R6 = 0      R10= 0     FP = 0x00000000
R3 = 0      R7 = 0      R11= 0     PC = 0x00000403
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM
```

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00000403: (08010000) INC R1 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 35	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000404

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM
PC-4 = 0x00000401 = 1025

00000404: (320FFFC) JUMP PC-4 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 35	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000401

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000401: (0220022) LOAD R2, 34 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 35	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000402

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000402: (10120000) MUL R1, R2 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 1190	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000403

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000403: (08010000) INC R1 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 1191	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000404

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM
PC-4 = 0x00000401 = 1025

00000404: (320FFFC) JUMP PC-4 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 1191	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000401

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

00000401: (0220022) LOAD R2, 34 > ↓

R0 = 0	R4 = 0	R8 = 0	R12= 0
R1 = 1191	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10= 0	FP = 0x00000000
R3 = 0	R7 = 0	R11= 0	PC = 0x00000402

FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM

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00000402: (10120000) MUL R1, R2 > ↓

R0 = 0	R4 = 0	R8 = 0	R12 = 0
R1 = 0x00009E2E	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10 = 0	FP = 0x00000000
R3 = 0	R7 = 0	R11 = 0	PC = 0x00000403
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM			

00000403: (08010000) INC R1 > ↓

R0 = 0	R4 = 0	R8 = 0	R12 = 0
R1 = 0x00009E2F	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10 = 0	FP = 0x00000000
R3 = 0	R7 = 0	R11 = 0	PC = 0x00000404
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM			
PC-4 = 0x00000401 = 1025			

00000404: (320FFFFC) JUMP PC-4 > ↓

R0 = 0	R4 = 0	R8 = 0	R12 = 0
R1 = 0x00009E2F	R5 = 0	R9 = 0	SP = 0x80000000
R2 = 34	R6 = 0	R10 = 0	FP = 0x00000000
R3 = 0	R7 = 0	R11 = 0	PC = 0x00000401
FLAGS = 0x00000031: R ~Z ~N ~ERR SYS IP ~VM			

00000401: (02200022) LOAD R2, 34 > [control-c]

> [control-c]

> [control-c]

\$ ls -l testprog* ↓

-rw-r--r-- 1 sratbag class 81 Sep 21 17:34 testprog.ass

-rw-r--r-- 1 sratbag class 20 Sep 21 17:34 testprog.exe

\$

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