Investigation 1: First 10 Fibbonaci #'s to port 255

0, 1, 1, 2, 3, 5, 8, 13, 21, 34
x x x

```
        JMP Start

n1:     0
n2:     1
count:  0
temp:   0
limit:  8
start:  LOAD n1
        WRITE 0xFF
        LOAD  n2
        WRITE 0xFF
top:    LOAD n1
        Add n2
        store temp
        write 0xFF
```

```
LOAD N2
store N1
Load Temp
store N2
LOAD count
ADD  0x01
store count
SUB  limit
JLZ  Count
```

Investigation 2: write a program to output Hello, world to port 888 assuming UTF-32

UTF-32 H = 72 = 0100 1000 = 0x48 d = 100 = 0x64 r = 114 = 0x72

2|72 0
2|36 0
2|18 0
2|9 1
2|4 0
2|2 0
1

space = 32 = 0x20 w = 119 = 0x77 l = 108 = 0x6C

o = 111 = 0x6F , = 44 = 0x2C e = 101 = 0x65

2|888

888 : index
= 0x378

```
JMP  start
str : 0x 0000 0048
      0x 0000 0065
      0x 0000 006C
      0x 0000 006F
      0x 0000 006F
      0x 0000 0020
      0x 0000 002C
      0x 0000 0020
      0x 0000 0077
      0x 0000 006F
      0x 0000 006F
      0x 0000 0072
      0x 0000 0064
index: 0
len:  0x0C
```

64 | 1
0x 1101 = D

```
start: LOAD   str[index]
       WRITE  0x378
       LOAD   index
       ADD    1
       STORE  index
       SUB    len
       JLZ    start

end:   JMP    end
```

I	0	1	2	3	4	5	6	7	8	9	10	11	12
letter	H	E	l	l	o	,		w	o	r	l	d	
I	1	2	3	4	5	6	7	8	9	10	11	12	

1 - 13

12 - 12

12
-12
0

= -