```
//Program 2, Audio
rom[16'd42]=16'b10000_001_0000_0001;
                                         //movih r1,
rom[16'd43]=16'b01111 001 1000 0000;
                                         //movil r1: r1<=384
rom[16'd44]=16'b01110 001 000 00000;
                                         //mov r0, r1
rom[16'd45]=16'b10000_010_0000 0010;
                                         //movih r2,
rom[16'd46]=16'b01111 010 0000 0000;
                                         //movil r2: r2<=512
//The loop starts here
rom[16'd47]=16'b10011 000 111 00000;
                                         //load r7<=M[r0]
rom[16'd48]=16'b00100 000 0000 0001;
                                         //addi r0, 1: r0=r0+1
rom[16'd49]=16'b00101 010 000 00000;
                                         //cmp r2, r0
rom[16'd50]=16'b11011 100 000 00100;
                                         //jrnz PC-4
//The loop ends here
rom[16'd51]=16'b10011 111 000 00000;
                                         //load r7<=M[r0]
rom[16'd52]=16'b11111 000 000 00000;
                                         //hlt
```