```c
 1   /*
 2    * m32Eeprom.c
 3    *
 4    * Created: 7/20/2022 6:43:00 PM
 5    *  Author : desktop
 6    */
 7
 8   #include <avr/io.h>
 9
10   /*Read button connects to PD6*/
11   #define writeButton ((PIND&0x40)==0)
12   /*Write button connects to PD7*/
13   #define readButton  ((PIND&0x80)==0)
14
15   void eepromWrite(unsigned int addr,unsigned char dat){
16       /*Wait for completion of previous write*/
17       while(EECR&(1<<EEWE));
18       /*Set up address and data registers*/
19       EEAR=addr;
20       EEDR=dat;
21       /*Write logical one to EEMWE*/
22       EECR|=(1<<EEMWE);
23       /*Start eeprom write by setting EEWE*/
24       EECR|=(1<<EEWE);
25   }
26
27   unsigned char eepromRead(unsigned int addr){
28       /*Wait for completion of previous write*/
29       while(EECR&(1<<EEWE));
30       /*Set up address register*/
31       EEAR=addr;
32       /*Start eeprom read by writing EERE*/
33       EECR|=(1<<EERE);
34       /*Return data from data register*/
35       return EEDR;
36   }
37
38   int main(void)
39   {
40
41       /*PORTC Output*/
42       DDRC=0xFF;
43       /*PA0...PA3 Input*/
44       DDRA=0xF0;
45       /*PORTB Input*/
46       DDRB=0x00;
47       /*Turn on porta and portb high*/
48       PORTA=0x0F;
49       PORTB=0xFF;
50       /*Turn on PD6 and PD7*/
51       PORTD=(1<<6)|(1<<7);
52       while (1)
53       {
54           /*eeprom read task*/
55           if (readButton)
56           {
57               /*wait until the button released*/
58               while(readButton);
59               PORTC=eepromRead(PINA);
60           }
61           /*eeprom write task*/
62           if (writeButton)
63           {
64               /*wait until the button released*/
65               while(writeButton);
66               eepromWrite(PINA,PINB);
67           }
68
69       }
70   }
71
72
```