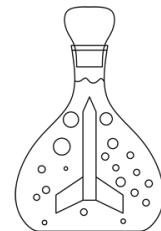


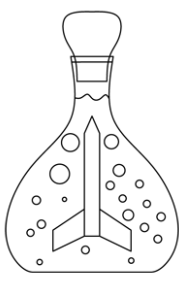
CRC

CRC LIBRARY

latest update

- CRC is used to determine the accuracy of data sent with the transfer of data on communication systems.
- The library includes CRC3-CRC4-CRC5-CRC6-CRC7-CRC8-CRC10-CRC11-CRC12-CRC15-CRC16-CRC24-CRC30





Generally Accepted CRC Polynomials

- CRC3->1011
- CRC4->10011
- CRC5->101001 / 110101 / 100101
- CRC6->1000010
- CRC7->10001001
- CRC8->100000111 / 100110001 / 111010101 / 100011101 / 110011011
- CRC10->11000110011
- CRC11->101110000101
- CRC12->1100000001111
- CRC15->1100010110011001
- CRC16->11000000000000101 / 10001000000100001 / 11000101110110111 / 10000010110001001 / 10000010110001001
- CRC24->1010111010110110111001011 / 1100001100100110011111011
- CRC30->1100000001100001011100111000111

FUNCTIONS

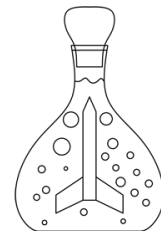
- **CRC3**(unsigned char ***veri**(data), unsigned int **dizi_sayisi**(set number), unsigned char **polinom**(polynomial), unsigned char **kod**(code))
- Note: All variables of the CRC library are the same. CRC3 is just an example.

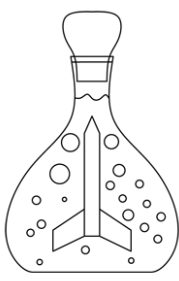
***veri** = the name of set we assign our data is written to this variable

dizi_sayisi = total number of our data that is added to how many set is entered.

polinom = the polynomial which is suitable for our CRC is written.

kod = 0 is written to calculate CRC which is valid for our data.





If we have CRC code and we want to check the accuracy of data, CRC code is written.
If the result is 0, data has been transferred correctly.

EXAMPLE

```
data2[0]=0b10111001;  
data2[1]=0b10111001;  
data2[2]=0b10111001;  
data2[3]=0b10001001;  
data2[4]=0b10111001;
```

IT HAS BEEN SHOWN HOW TO DATA IS UPLOADED TO SET ABOVE. THERE IS NO LIMIT. YOU CAN INCREASE SET AS MUCH AS YOU WANT. BUT THIS SET IS FOR 8 BIT. YOU SHOULD CREATE A SET THAT IS SUITABLE FOR YOUR CRC.

```
CRC7(data2,5,0b10001001,0);
```

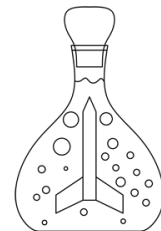
CRC function is called and parameters are entered.

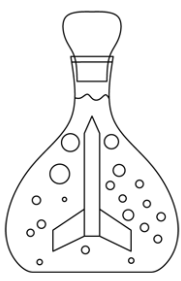
If 0 is written to the code variable(4.parameter), CRC calculates.

If CRC code is entered to the code variable, it checks the accuracy of data. If the result is 0, the data has been transferred correctly.

DESCRIPTION OF PROBLEM

- ***veri = data2**
- **dizi_sayisi= 5**
- **polinom=0b10001001**
- **kod = 0**





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