

Example:

3 of 6 Code

3 → number of “ones” instances

6 → length of the codeword

Original 3 data bits	Appended bits	Encoded Message
000	111	000 111
001	110	001 110
010	110	010 110
100	110	100 110
101	100	101 100
110	100	110 100
111	000	111 000

Original Message: 101 100

Received Message: 111 100

Dictionary Message	Hamming Distance
000 111	5
001 110	3
010 110	3
100 110	3
101 100	1
110 100	1
111 000	1

Note: Two possible messages 110 100 and 111 000. This is the problem of my algorithm because two equal messages means message re-transmission.

How can I solve this problem?