Arnav Surve

CNIT 176

Lab 03

a. 00100 10101 01101 11111011 00001 11001 11111110 01110 00010 10101

b. The Bobatea code gets delimited by separating each set of 5 bits, assuming it is a letter of the alphabet. If there are 5 consecutive 1's, that indicates the next 8 bits represent a number.
c. 01001 01010 11011 11110 11000 01111 01111 11110 01110 00010 10101

NA NA NA NA NA NA NA NA

None of the sets of 5 binary bits correspond to a letter in the alphabet besides the last three. There are also no sets of bits that begin with 5 consecutive 1's, so there are no discernible numbers in the code as well.

d. A method that could be used for determining an error in the Taronite message could be first splitting the bits into sections of 5 or 8 bits based on if it is a letter of the alphabet or number. Next, taking the sum of each set of bits should return either 1 or 3 if it is a set of 5 bits, or either 5 or 7 if it is a set of 8 bits. This is because each letter's binary representation only sums to 1 or 3, and each number has a sum of either 5 or 7. If the sum of a group of bits does not match either of these, it is not a valid character. This is applicable to any case of Taronite message, as individual Bobatea characters can only add up to those values.

I solved the problem of reproducing the Taronite code by saving cropped screenshots of the Taronite symbols in the symbol/binary chart.