

# Contacting The Aliens - Writeup

We double Base64 decode this string and then decode from hex till we get more hex and a piece of string.... we copy this over and and look at the challenge, which contains our clue..

The screenshot shows a CyberChef recipe with three steps:

- From Base64**: Alphanumeric, Remove non-alphabet chars, Strict mode.
- From Base64**: Alphanumeric, Remove non-alphabet chars, Strict mode.
- From Hex**: Delimiter: Auto.

The **Input** field contains a long Base64-encoded string. The **Output** field shows the result of the double Base64 decode, which is a hex string: `f8 a6 9b 12 4b 3f d5 bd e0 ac d3 99 3c 56 da 2c 91 17 d4 b3 4a 53 0c 30 47 99 ed 9d d5 e3 d8 d8 6e 67 0b 73 25 10 a7 9d 7b 58 60 6e 91 c5 f0 2c ba 9b 3d bf dc 1f c0 a1 58 c4 10 37 67 1d 6b 57 51 4c b3 b6 dd 87 22 eb dc 52 ea 1b cb ea e8 a7 16 c5 9d 56 a5 d7 19 9e 6a 85 8a b1 80 fc ae 4c a6 20 18 bd 4a f4 dd 05 51 d1 f5 8e e3 7b 9c 61 44 0f 49 97 3e 66 cc e0 4d b5 01 a9 70 84 ca 4d hacksoc`.

The Aliens have sent us a message via Remote Contact, can you figure out what this is four?

We see that "Remote Contact" is capitalised and that "four" is spelt wrong, this is a hint for the next step which is RC4.

We pass this to an RC4 tool such as Cryptii, or we can use CyberChef with slightly more configuration... We convert our key (hacksoc) to hex and decrypt it to get some more Base64!

The screenshot shows a CyberChef recipe with three steps:

- Ciphertext**: Format: Hexadecimal, Group by: Byte.
- RC4**: Key: 68 61 63 66 73 6f 63 (hex for "hacksoc"), Drop bytes: 0.
- Plaintext**: The result of the RC4 decryption is a Base64-encoded string: `NTMgNDUgNDYgNDQgNTMgMzEgNGUgNTAgNTEgMzEgMzkgNDQgNTYgNDUgNWEGMzcgNTUgNmI gNGQgMzAgNTggMzAgNmMgNTQgNTggMzAgNWEGNTYgNTQgNmUgMzAgM2Q=`.

We run this back through CyberChef and get our flag!

Recipe

From Base64

Alphabet  
A-Za-z0-9+/=

☒ Remove non-alphabet chars

☐ Strict mode

From Hex

Delimiter  
Auto

From Base64

Alphabet  
A-Za-z0-9+/=

☒ Remove non-alphabet chars

☐ Strict mode

Input

NTHgNDUgNDYgNDQgNTgMzEgNGUgNTAgNTEgMzEgMzkgNDQgNTYgNDUgNWUgMzcgNTUgNmIgNGQgMzAgNTgMzAgNmMgNTQgNTgMzAgNWUgNTYgNTQgNmUgMzAgMzQ=

Output

HACKSOC\_CTF{RC4\_IS\_FUN}