

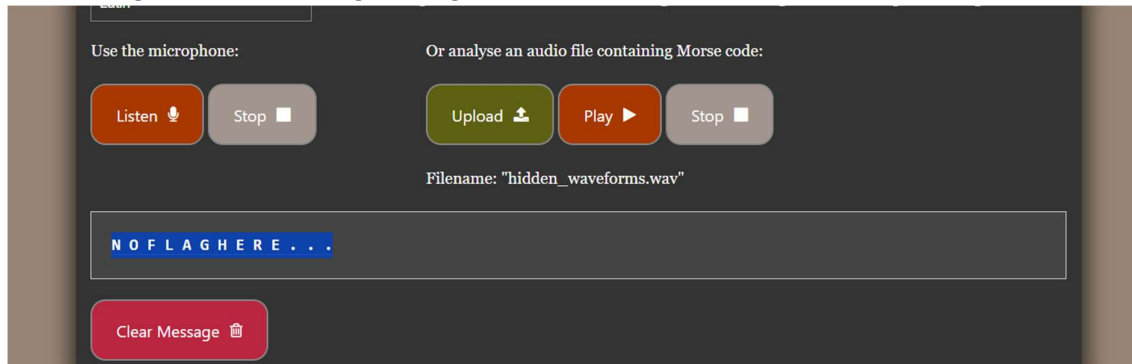


HIDDEN WAVEFORMS

Description:

Hidden in the waves lies a secret. Can you find it?

Listening to the audio revealed a beeping sound, identified as Morse code. However, decoding it with online tools did not provide the expected flag or hint instead show **'NOFLAGHERE...'**. Furthering my steps. I also examining metadata using exiftool, inspecting the file with binwalk, and exploring potential steganography methods, but no significant findings emerged.



1. Steghide

Upon testing the image with **steghide**, the file was extracted accidentally **without requiring a password**, revealing the data.

```
(osiris@ALICE)-[~/Downloads/CTF/STOUTCTF/Crypto/hidden_wave]
$ steghide extract -sf hidden_waveforms.wav
Enter passphrase:
wrote extracted data to "secrets_in_sound.txt".
```

2. Decimal to Text

Reading the text file will get to see the decimal code.

```
osiris@ALICE: ~/Downloads/CTF/STOUTCTF/Crypto/hidden_wave
$ cat secrets_in_sound.txt
```

```
$ cat secrets_in_sound.txt | tr ' ' '\n' | while read d; do printf "\\$(printf '%03o' $d)"; done
```



3. Alternative way:

Alternative way of decode could use any online software decode generator such as CyberChef.

[illegible]

4. Brainfuck Decode:

Now we encounter a new encoded. But this one I'm already familiar with it. It is called '**BrainFuck**'. Use any cipher decoder online tools.

[illegible]

Flag	STOUTCTF{U60vEbbs1eNX6UcG3hGIZaaeB70cgcg7}
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