

Unfortunately, this can't be done in 4K systems, and the two pages must be loaded from tape. Timing loops within this subroutine keep the flashing at a reasonable rate.

Other changes you can make include:

- 1) My VIP Manual states that 01 will not work as a value for the tone generator. You should hear a "beep" every time the target is hit. If you don't, try changing VE to a value of 02 at location 03E6.
- 2) The target pattern is stored in the data section, at location 05EA. You have four bytes in which to draw different ships if you wish.
- 3) The initial value of VC (the number of Phasers) is in location 05FC. Changing this value to a higher or lower value alters the number of shots. However, you'll also want to change the message at the beginning of the game which states how many phasers are available. This is stored at 062C, in ASCII-encoded form. Change these two bytes to 3X 3Y where XY equals the two digit number of phasers. All ASCII numbers begin with a hex 3 in the first digit position.
- 4) See instructions on the use of the CHIP-8 Messenger to enter your own messages for a custom game. You might experiment with changing the ASCII codes at 0600, but you're limited to the same number of characters as are already there. All character strings must end with a null character (00).

If you have troubles, use the checksum data for both the game and for the modified interpreter. I hope you enjoy playing Space Wars, and will try some of the modifications suggested to learn more about your VIP.