

```

.globl _mirror

.text

_mirror:

    push    %ebp           # Backup Base pointer
    movl    %ebp, %esp     # Set local base pointer.
    push    %eax           # Backup needer registers
    push    %ecx
    push    %esi
    push    %edi

    movl    8(%ebp), %esi   # Address of source string (first param) -> esi.
    movl    $0, %ecx       # Initialize counter.
    subl    $1, %esi       # Move back esi of one char. (Will be undone.)

go_end:

    addl    $1, %esi       # See, what did I say ?
    addl    $1, %ecx       # Increment counter.
    cmpb    $0, (%esi)     # Check if we've reached the end-of-string char.
    jne     go_end         # Jump back while we haven't.

    movl    %esi, %edi     # Dest index is now on the end-of-string char.
    subl    $2, %esi       # Move back esi to the letter before the last.
    subl    $2, %ecx       # Update counter accordingly.

revcopy:

    movb    (%esi), %al    # First tour in this loop overwrite the EOS.
    movb    %al, (%edi)
    subl    $1, %esi       # Go back one letter.
    addl    $1, %edi       # Go forth one letter.
    subl    $1, %ecx       # Decrement counter.
    jnz     revcopy       # Go back while there's characters to copy.

    movb    $0, (%edi)     # Place a new EOS char at the end.

    pop     %edi           # Restore all backed up registers.
    pop     %esi
    pop     %ecx
    pop     %eax
    pop     %ebp

    ret

```