

Find the Index of the First Occurrence - KMP Code Solution

```
/**
 * @param {string} haystack
 * @param {string} needle
 * @return {number}
 */
var strStr = function(haystack, needle) {
    let n = haystack.length;
    let m = needle.length;

    let lps = [0];
    let i = 0;
    let j = 1;

    while (j < m) {
        if (needle[i] === needle[j]) {
            lps[j] = i + 1;
            i++;
            j++;
        } else {
            if (i === 0) {
                lps[j] = 0;
                j++;
            } else {
                i = lps[i - 1];
            }
        }
    }

    i = j = 0;

    while (i < n) {
        if (haystack[i] === needle[j]) {
            i++;
            j++;
        } else {
            if (j === 0) {
                i++;
            } else {
                j = lps[j - 1];
            }
        }

        if (j === m) return i - m;
    }

    return -1;
};
```