```c
/*****************************************************************
 * File:       Name of file
 * Author:     Bryant Gonzaga
 * Created:    Date file was first created
 * Modified:   Date file was last modified
 *
 * Notes:
 *  Processor specific, libraries need
 *
 * Description:
 *  A full description of what can be found in this file
 *
 * How To:
 *  If necessary add some instructions on how to use the file.
 *****************************************************************/

#include "fsm_state_tables.h"

state present_state;

void fsm(state ps, key key)
{
    /* Find the index for task and next state */
    int i = 0;
    while ((ps_transitions_ptr[ps][i].key_val != key) &&
           (ps_transitions_ptr[ps][i].key_val != eol)) {
        i++;
    }

    /* Execute Task/Output/Funcntion */
    ps_transitions_ptr[ps][i].task_ptr();

    /* Update Present State to Next State */
    present_state = ps_transitions_ptr[ps][i].next_state;
}
```