```c
/****************************************************************
 * File:        fsm.h
 * Author:      Bryant Gonzaga
 * Created:     4/12/2018
 * Modified:    4/12/2018
 *
 * Notes:
 *  Inteneded for the ATmega128
 *
 * Description:
 *  This file contains type defs and structures relevent to our fsm.
 ****************************************************************/

#ifndef FSM_H_
#define FSM_H_

/* FSM States */
typedef enum
{
    set_alarm_state = 0,
    set_time_state  = 1,
    display_state   = 2,
}  state;

/* Input Keys */
typedef enum
{
    set_alarm_key,
    set_time_key,
    confirm_key,
    rtc_1hz_key,
    cancel_key,
    num_keys,
    eol
} key;

/* Key Values */
#define SET_ALARM_KEY   15
#define SET_TIME_KEY    14
#define CONFIRM_KEY     12
#define CANCEL_KEY      10

/* Function Pointer (For Output of FSM) */
typedef void (* task_ptr) ();

/* Transition Struct */
typedef struct
{
    key key_val;
    state next_state;
    task_ptr task_ptr;
} transition;

#endif /* FSM_H_ */
```