```c
/*******************************************************************************
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 *
 *******************************************************************************
 *
 * File          : app.c
 * Version       : 1.0
 *
 *******************************************************************************
 *
 * Description   : Managing global state machine
 *
 *******************************************************************************
 *
 * Author        : Miguel Santos
 * Date          : 25.09.2023
 *
 *******************************************************************************
 *
 * MPLAB X       : 5.45
 * XC32          : 2.50
 * Harmony       : 2.06
 *
 ******************************************************************************/

#include "app.h"
#include "modules/TLC5973.h"
#include "driver/tmr/drv_tmr_mapping.h"

#define LED_WIFI TLC_DRV_ID_0

/******************************************************************************/

/* Timeout for turning off output (in milliseconds) */
#define APP_TIME_OUT_MS 7200000

/* Wait time to allow user to react (in milliseconds) */
#define APP_TIME_WAIT_MS 60000

/******************************************************************************/

/* Declaration of global application data */

APP_DATA appData;

/******************************************************************************/

/**
 * @brief APP_Initialize
 *
 * Initialize APP state machine
 *
 * @param void
 * @return void
 */
void APP_Initialize ( void )
{
    /* Place the App state machine in its initial state. */
    appData.state = APP_STATE_INIT;

    /* Initialize TLC5973 interface */
    TLC_Initialize();

    /* Start application's timer */
    DRV_TMR0_Start();

    /* Initialize timeout counter */
    CNT_Initialize(&appData.timeOut, 50);
```

```
}

/*******************************************************************************/

/**
 * @brief APP_Tasks
 *
 * Execute APP state machine, should be called cyclically
 *
 * @param void
 * @return void
 */
void APP_Tasks ( void )
{
    /* Check the application's current state. */
    switch ( appData.state )
    {
        /* Application's initial state. */
        case APP_STATE_INIT:
        {
            AC_SETOn();
            appData.state = APP_STATE_IDLE;
            break;
        }

        case APP_STATE_IDLE:
        {
            if(CNT_Check(&appData.timeOut))
            {
                AC_SETOff();
                appData.state = APP_STATE_SETUP_WIFI;
            }
            break;
        }

        case APP_STATE_SETUP_WIFI:
        {
            break;
        }

        case APP_STATE_SETUP_RFID:
        {
            break;
        }

        case APP_STATE_ASKING:
        {
            break;
        }

        case APP_STATE_OFF:
        {
            break;
        }

        case APP_STATE_ON:
        {
            break;
        }

        /* The default state should never be executed. */
        default:
        {
            /* TODO: Handle error in application's state machine. */
            break;
        }
    }
}

/*******************************************************************************/

/* End of File *****************************************************************/

```