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1 /* *****
* Infrared.h
* -----
* Copyright (C) 2004 KOCH Engineering
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* (MPLAB-IDE 6.43)
* Version 1.0 Marts 14. 2004
10 ***** */

//#define DEBUG

#define OUTPUT_TIME 110 // ms.

15 /* Pulse Widths for PWM code */
#define PULSE_SHORT_LIMIT 1000
#define PULSE_LONG_LIMIT_L 1100
#define PULSE_LONG_LIMIT_H 2000
20 #define PULSE_START_LIMIT 2400

/* I.R. Data Codes */
#define IR_COMMON_CODE 0x6106 // this code is always send
//
25 #define IR_KEY0_CODE 0xC03F // "FUNCT"
#define IR_KEY1_CODE 0xD827 // "UP"
#define IR_KEY2_CODE 0x6897 // "BACKWARD"
#define IR_KEY3_CODE 0xE817 // "FORWARD"
#define IR_KEY4_CODE 0xB847 // "DOWN"
30 #define IR_KEY5_CODE 0xA05F // "MUTE"

/* return values for ir_receiver */
#define REMOTE_BUTTON0 0
#define REMOTE_BUTTON1 1
35 #define REMOTE_BUTTON2 2
#define REMOTE_BUTTON3 3
#define REMOTE_BUTTON4 4
#define REMOTE_BUTTON5 5
#define REMOTE_BUTTON_NO_SUPPORT 255
40

/* */
#define KEY_OUTPUT0 0
#define KEY_OUTPUT1 1
#define KEY_OUTPUT2 2
45 #define KEY_OUTPUT3 3
#define KEY_OUTPUT4 4
#define KEY_OUTPUT5 5
#define KEY_ALL_CLEAR 255

50 /* Events sent from Inner State Machine to Outer State Machine */
#define EVENT_ZEROBIT 0x00
#define EVENT_ONEBIT 0x01
#define EVENT_STARTBIT 0xFE
#define EVENT_RESYNC 0xFF
55

/* Inner state machine states */
#define ISM_HIGH 0
#define ISM_LOW 1

60 /* Outer State Machine states. For state 1-32, the state numbers corresponds
to the bit number that is expected next. */
#define OSM_START 0 /* Startbit
#define OSM_BIT01 1 /* Always same bit
#define OSM_BIT02 2 /* Always same bit
65 #define OSM_BIT03 3 /* Always same bit
#define OSM_BIT04 4 /* Always same bit
#define OSM_BIT05 5 /* Always same bit
#define OSM_BIT06 6 /* Always same bit
#define OSM_BIT07 7 /* Always same bit
70 #define OSM_BIT08 8 /* Always same bit
#define OSM_BIT09 9 /* Always same bit
#define OSM_BIT10 10 /* Always same bit
#define OSM_BIT11 11 /* Always same bit

```

```

#define define OSM_RESYNC      33 /*
75 // ***** variables *****
    extern bank2 BYTE      ism_state;
    extern bank2 BYTE      osm_state;

80    extern bank2 WORD      code_common;
    extern bank2 WORD      code_separate;

    extern bit              NewCodeReceived;
    extern bit              KeyPressed;

85 #ifndef DEBUG
    extern bit              DebugPrint;
#endif

90 // ***** functions *****

    // outer state machine
    extern void ir_receiver_osm (BYTE event);

95 // inner state machine
    extern void ir_receiver_ism (void);

    // initialization
    extern void ir_init (void);

100 // look up button code
    extern BYTE get_remote_button (WORD code);

    //

105 #ifndef DEBUG
    extern bank2 WORD capture_value[15];
#endif

    extern bank2 WORD output_timer_value;

110    extern void set_output_pin (BYTE keynumber);

    extern BYTE ReadKey(void);

```