```c
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31  * POSSIBILITY OF SUCH DAMAGE.
32  *
33  * @file bno055_support.c
34  * @date 10/01/2020
35  * @version  2.0.6
36  *
37  */
38
39  /*---------------------------------------------------------------------*
40   *  Includes
41   *--------------------------------------------------------------------*/
42  #include "bno055.h"
43
44  #define  BNO055_API
45
46  #define  FLAG_MEAS_ON    1
47  #define  FLAG_MEAS_OFF   0
48  /*---------------------------------------------------------------------*
49   *  The following APIs are used for reading and writing of
50   *   sensor data using I2C communication
51   *--------------------------------------------------------------------*/
52  #ifdef  BNO055_API
53  #define BNO055_I2C_BUS_WRITE_ARRAY_INDEX ((u8)1)
54
55  /* \Brief: The API is used as I2C bus read
56   * \Return : Status of the I2C read
57   * \param dev_addr : The device address of the sensor
58   * \param reg_addr : Address of the first register,
59   *   will data is going to be read
60   * \param reg_data : This data read from the sensor,
61   *   which is hold in an array
62   * \param cnt : The no of byte of data to be read
63   */
64  s8 BNO055_I2C_bus_read(u8 dev_addr, u8 reg_addr, u8 *reg_data, u8 cnt);
65
66  /* \Brief: The API is used as SPI bus write
67   * \Return : Status of the SPI write
68   * \param dev_addr : The device address of the sensor
69   * \param reg_addr : Address of the first register,
70   *   will data is going to be written
71   * \param reg_data : It is a value hold in the array,
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72  *  will be used for write the value into the register
73  *  \param cnt : The no of byte of data to be write
74  */
75  s8 BNO055_I2C_bus_write(u8 dev_addr, u8 reg_addr, u8 *reg_data, u8 cnt);
76
77  /*
78  *  \Brief: I2C init routine
79  */
80  s8 I2C_routine(void);
81
82  /*  Brief : The delay routine
83  *  \param : delay in ms
84  */
85  void BNO055_delay_msek(u32 msek);
86
87  #endif
88
89  /*********************End of I2C APIs declarations*********************/
90
91  /* This API is an example for reading sensor data
92  *  \param: None
93  *  \return: communication result
94  */
95  s32 bno055_init_readout(void);
96
97  s32 bno055_read_routine(s_bno055_data *data);
98
99  /*------------------------------------------------------------------------*
100  *  struct bno055_t parameters can be accessed by using BNO055
101  *  BNO055_t having the following parameters
102  *  Bus write function pointer: BNO055_WR_FUNC_PTR
103  *  Bus read function pointer: BNO055_RD_FUNC_PTR
104  *  Burst read function pointer: BNO055_BRD_FUNC_PTR
105  *  Delay function pointer: delay_msec
106  *  I2C address: dev_addr
107  *  Chip id of the sensor: chip_id
108  *------------------------------------------------------------------------*/
109  struct bno055_t bno055;
110
```