

gpio.c

```
1 /**
2  *****
3  * File Name      : gpio.c
4  * Description    : This file provides code for the configuration
5  *                  of all used GPIO pins.
6  *****
7  * @attention
8  *
9  * <h2><center>&copy; Copyright (c) 2021 STMicroelectronics.
10 * All rights reserved.</center></h2>
11 *
12 * This software component is licensed by ST under BSD 3-Clause license,
13 * the "License"; You may not use this file except in compliance with the
14 * License. You may obtain a copy of the License at:
15 *                  opensource.org/licenses/BSD-3-Clause
16 *
17 *****
18 */
19
20 /* Includes ----- */
21 #include "gpio.h"
22 /* USER CODE BEGIN 0 */
23
24 /* USER CODE END 0 */
25
26 /*----- */
27 /* Configure GPIO */
28 /*----- */
29 /* USER CODE BEGIN 1 */
30
31 /* USER CODE END 1 */
32
33 /** Configure pins as
34     * Analog
35     * Input
36     * Output
37     * EVENT_OUT
38     * EXTI
39 */
40 void MX_GPIO_Init(void)
41 {
42
43     GPIO_InitTypeDef GPIO_InitStruct = {0};
44
45     /* GPIO Ports Clock Enable */
46     __HAL_RCC_GPIOC_CLK_ENABLE();
47     __HAL_RCC_GPIOH_CLK_ENABLE();
48     __HAL_RCC_GPIOA_CLK_ENABLE();
49     __HAL_RCC_GPIOB_CLK_ENABLE();
50
51     /*Configure GPIO pin Output Level */
52     HAL_GPIO_WritePin(GPIOA, DIR_AXIS3_Pin|DIR_AXIS2_Pin|DIR_AXIS1_Pin|GPIO_PIN_5
53                       |DIR_AXIS6_Pin, GPIO_PIN_RESET);
54
55     /*Configure GPIO pin Output Level */
56     HAL_GPIO_WritePin(GPIOB, DIR_AXIS5_Pin|DIR_AXIS4_Pin, GPIO_PIN_RESET);
57
58     /*Configure GPIO pins : PCPin PCPin PCPin PCPin */
59     GPIO_InitStruct.Pin =
60     SensorSquare_Pin|SensorRoller_Pin|SensorTriangle_Pin|SensorStar_Pin;
61     GPIO_InitStruct.Mode = GPIO_MODE_IT_FALLING;
62     GPIO_InitStruct.Pull = GPIO_PULLDOWN;
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62 HAL_GPIO_Init(GPIOC, &GPIO_InitStruct);
63
64 /*Configure GPIO pins : PAPin PAPin PAPin PA5
65     PAPin */
66 GPIO_InitStruct.Pin = DIR_AXIS3_Pin|DIR_AXIS2_Pin|DIR_AXIS1_Pin|GPIO_PIN_5
67     |DIR_AXIS6_Pin;
68 GPIO_InitStruct.Mode = GPIO_MODE_OUTPUT_PP;
69 GPIO_InitStruct.Pull = GPIO_NOPULL;
70 GPIO_InitStruct.Speed = GPIO_SPEED_FREQ_LOW;
71 HAL_GPIO_Init(GPIOA, &GPIO_InitStruct);
72
73 /*Configure GPIO pins : PBPin PBPin */
74 GPIO_InitStruct.Pin = DIR_AXIS5_Pin|DIR_AXIS4_Pin;
75 GPIO_InitStruct.Mode = GPIO_MODE_OUTPUT_PP;
76 GPIO_InitStruct.Pull = GPIO_NOPULL;
77 GPIO_InitStruct.Speed = GPIO_SPEED_FREQ_LOW;
78 HAL_GPIO_Init(GPIOB, &GPIO_InitStruct);
79
80 /* EXTI interrupt init*/
81 HAL_NVIC_SetPriority(EXTI0_IRQn, 0, 0);
82 HAL_NVIC_EnableIRQ(EXTI0_IRQn);
83
84 HAL_NVIC_SetPriority(EXTI1_IRQn, 0, 0);
85 HAL_NVIC_EnableIRQ(EXTI1_IRQn);
86
87 HAL_NVIC_SetPriority(EXTI2_IRQn, 0, 0);
88 HAL_NVIC_EnableIRQ(EXTI2_IRQn);
89
90 HAL_NVIC_SetPriority(EXTI3_IRQn, 0, 0);
91 HAL_NVIC_EnableIRQ(EXTI3_IRQn);
92
93 }
94
95 /* USER CODE BEGIN 2 */
96
97 /* USER CODE END 2 */
98
99 /***** (C) COPYRIGHT STMicroelectronics *****/
100
```