```c
/**
  ******************************************************************************
  * File Name          : gpio.c
  * Description        : This file provides code for the configuration
  *                      of all used GPIO pins.
  ******************************************************************************
  * @attention
  *
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  *
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  *                        opensource.org/licenses/BSD-3-Clause
  *
  ******************************************************************************
  */

/* Includes ------------------------------------------------------------------*/
#include "gpio.h"
/* USER CODE BEGIN 0 */

/* USER CODE END 0 */

/*------------------------------------------------------------------------------*/
/* Configure GPIO                                                               */
/*------------------------------------------------------------------------------*/
/* USER CODE BEGIN 1 */

/* USER CODE END 1 */

/** Configure pins as
        * Analog
        * Input
        * Output
        * EVENT_OUT
        * EXTI
*/
void MX_GPIO_Init(void)
{

  GPIO_InitTypeDef GPIO_InitStruct = {0};

  /* GPIO Ports Clock Enable */
  __HAL_RCC_GPIOC_CLK_ENABLE();
  __HAL_RCC_GPIOH_CLK_ENABLE();
  __HAL_RCC_GPIOA_CLK_ENABLE();
  __HAL_RCC_GPIOB_CLK_ENABLE();

  /*Configure GPIO pin Output Level */
  HAL_GPIO_WritePin(GPIOA, DIR_AXIS3_Pin|DIR_AXIS2_Pin|DIR_AXIS1_Pin|GPIO_PIN_5
                          |DIR_AXIS6_Pin, GPIO_PIN_RESET);

  /*Configure GPIO pin Output Level */
  HAL_GPIO_WritePin(GPIOB, DIR_AXIS5_Pin|DIR_AXIS4_Pin, GPIO_PIN_RESET);

  /*Configure GPIO pins : PCPin PCPin PCPin PCPin */
  GPIO_InitStruct.Pin =
SensorSquare_Pin|SensorRoller_Pin|SensorTriangle_Pin|SensorStar_Pin;
  GPIO_InitStruct.Mode = GPIO_MODE_IT_FALLING;
  GPIO_InitStruct.Pull = GPIO_PULLDOWN;
```

```
  HAL_GPIO_Init(GPIOC, &GPIO_InitStruct);

  /*Configure GPIO pins : PAPin PAPin PAPin PA5
                           PAPin */
  GPIO_InitStruct.Pin = DIR_AXIS3_Pin|DIR_AXIS2_Pin|DIR_AXIS1_Pin|GPIO_PIN_5
                        |DIR_AXIS6_Pin;
  GPIO_InitStruct.Mode = GPIO_MODE_OUTPUT_PP;
  GPIO_InitStruct.Pull = GPIO_NOPULL;
  GPIO_InitStruct.Speed = GPIO_SPEED_FREQ_LOW;
  HAL_GPIO_Init(GPIOA, &GPIO_InitStruct);

  /*Configure GPIO pins : PBPin PBPin */
  GPIO_InitStruct.Pin = DIR_AXIS5_Pin|DIR_AXIS4_Pin;
  GPIO_InitStruct.Mode = GPIO_MODE_OUTPUT_PP;
  GPIO_InitStruct.Pull = GPIO_NOPULL;
  GPIO_InitStruct.Speed = GPIO_SPEED_FREQ_LOW;
  HAL_GPIO_Init(GPIOB, &GPIO_InitStruct);

  /* EXTI interrupt init*/
  HAL_NVIC_SetPriority(EXTI0_IRQn, 0, 0);
  HAL_NVIC_EnableIRQ(EXTI0_IRQn);

  HAL_NVIC_SetPriority(EXTI1_IRQn, 0, 0);
  HAL_NVIC_EnableIRQ(EXTI1_IRQn);

  HAL_NVIC_SetPriority(EXTI2_IRQn, 0, 0);
  HAL_NVIC_EnableIRQ(EXTI2_IRQn);

  HAL_NVIC_SetPriority(EXTI3_IRQn, 0, 0);
  HAL_NVIC_EnableIRQ(EXTI3_IRQn);

}

/* USER CODE BEGIN 2 */

/* USER CODE END 2 */

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```