Driver Design

RCC, EXTI, TIMER

RCC

- APB2 Peripheral clocks configuration.
  - void RCC_APB2PeriphClockCmd(uint32_t RCC_Periph, FunctionalState NewState);

EXTI

- Initializes the EXTI peripheral.
  - EXTI line configuration.
  - Rising Falling edge configuration.
  - void EXTI_Init(uint32_t EXTI_Line, uint32_t Rising_Mask, uint32_t Falling_Mask, FunctionalState NewState);
- Checks whether the specified EXTI line is asserted or not.
  - ITStatus EXTI_GetITStatus(uint32_t EXTI_Line);
- Clears the EXTI's line pending bits.
  - void EXTI_ClearITPendingBit(uint32_t EXTI_Line);

TIMER

- Sets the TIMx Capture Compare Register value
  - void TIM_SetCompare1(TIM_TypeDef* TIMx, uint32_t Compare1);
  - void TIM_SetCompare2(TIM_TypeDef* TIMx, uint32_t Compare2);
  - void TIM_SetCompare3(TIM_TypeDef* TIMx, uint32_t Compare3);
  - void TIM_SetCompare4(TIM_TypeDef* TIMx, uint32_t Compare4);

TIMER

- Enables or disables the specified TIM interrupts.
  - void TIM_ITConfig(TIM_TypeDef* TIMx, uint16_t TIM_IT, FunctionalState NewState);
- Checks whether the TIM interrupt has occurred or not.
  - ITStatus TIM_GetITStatus(TIM_TypeDef* TIMx, uint16_t TIM_IT);
- Clears the TIMx's interrupt pending bits.
  - void TIM_ClearITPendingBit(TIM_TypeDef* TIMx, uint16_t TIM_IT);