Driver Assistant System

Embedded based SW Project

- SWIP 9차수 3조 -

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HYUNDAI MOTOR GROUP

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1 Introduction

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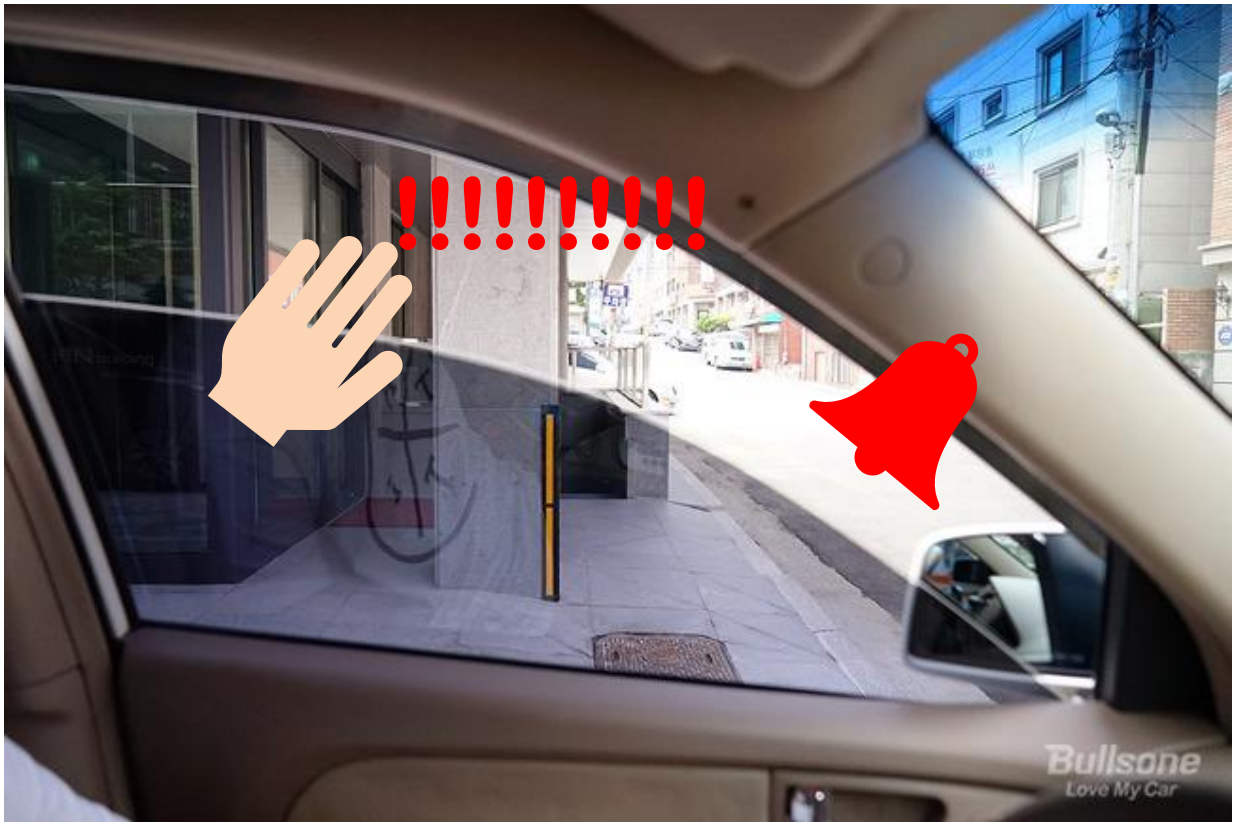
Mode 1: Smart Window



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Mode 2: Driver state Warning Mode

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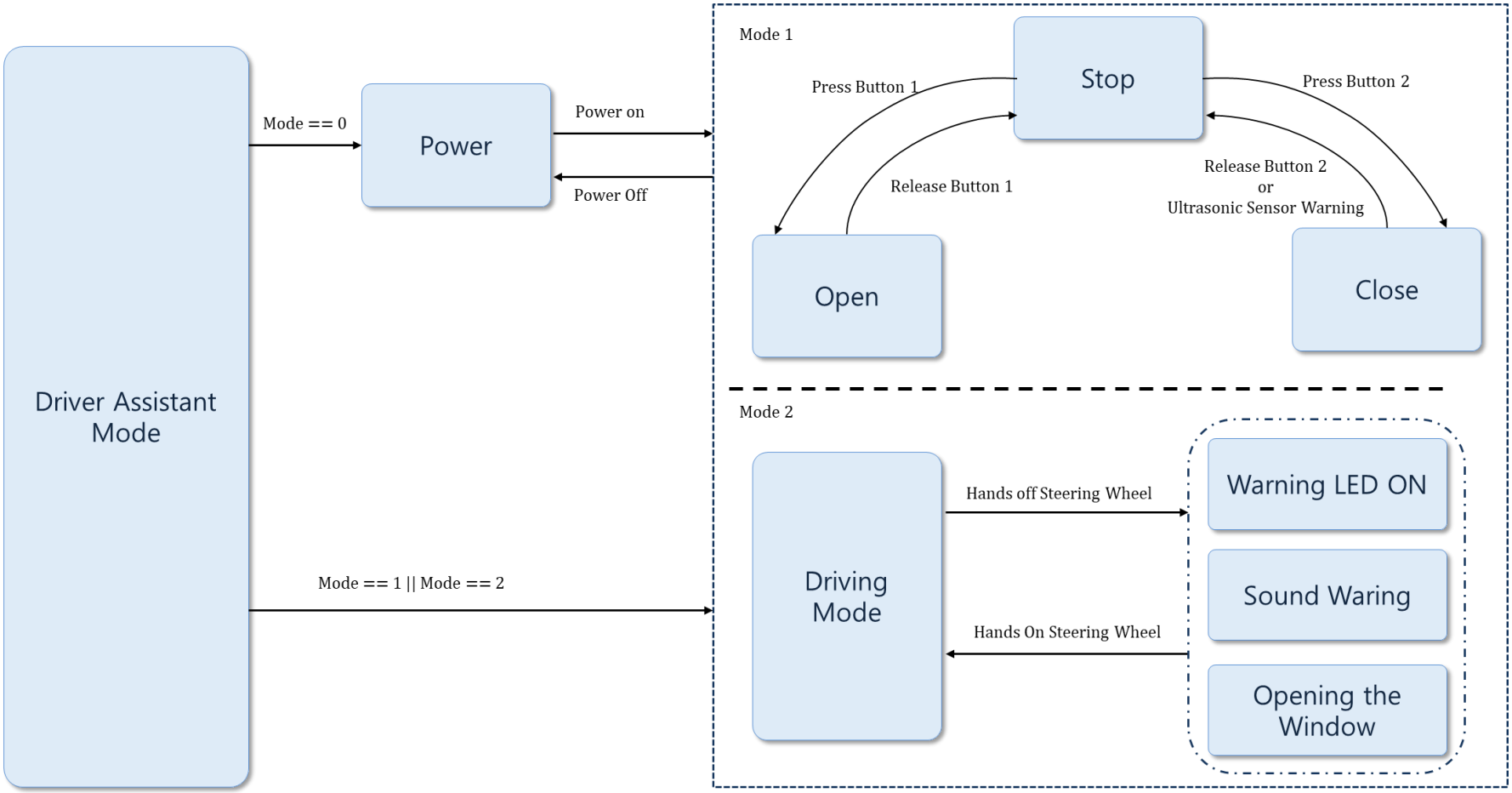
2 System Architecture

2. System Architecture



Mode 0 : Power Standby Mode
Mode 1 : Smart Window Mode
Mode 2 : Driver State Warning Mode

3 Function

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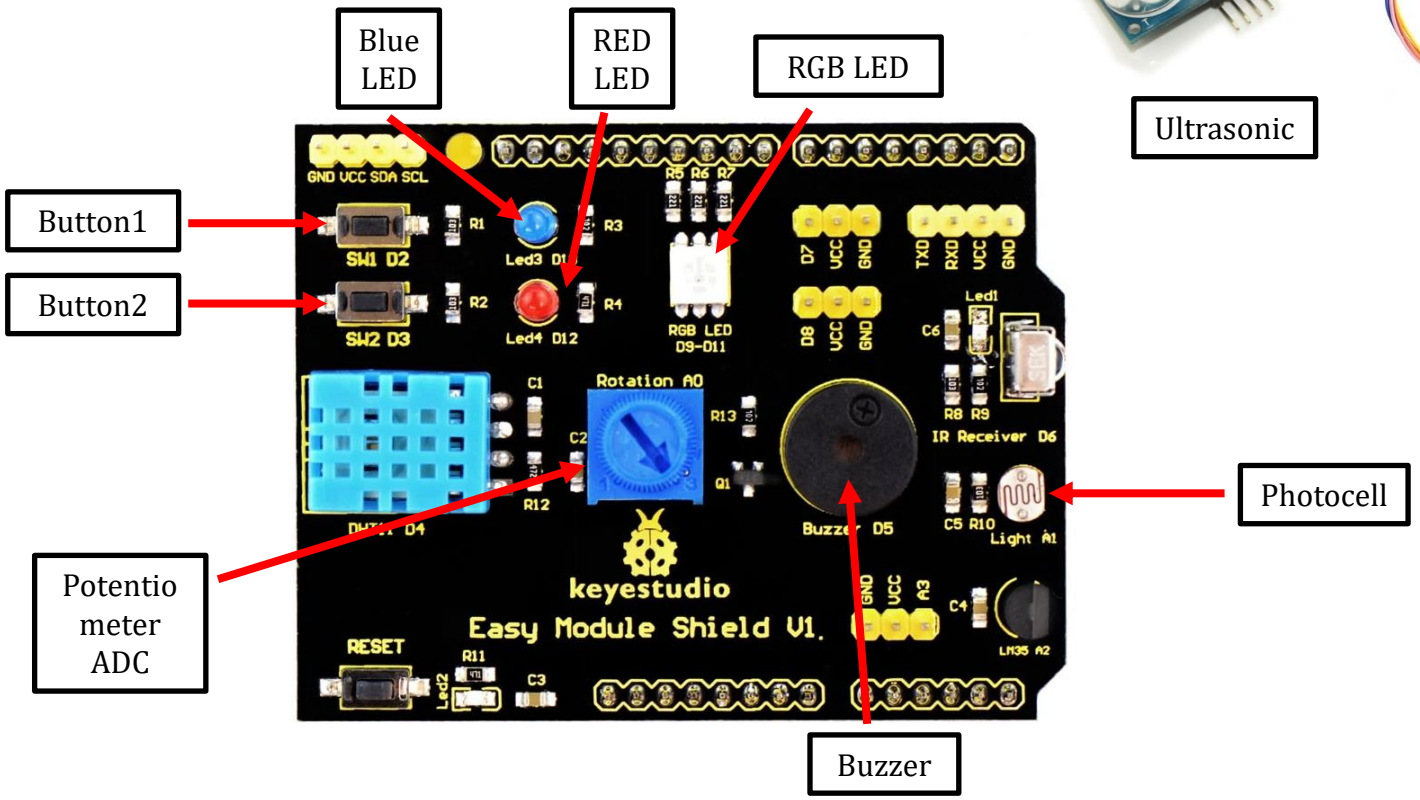
2-1. Main Function

Ultrasonic

Motor



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2-1. Main Function

	ADC	RGB LED	Button1	Button2	Red LED	Blue LED
Function	Select Mode	ADC mode	Window	Power/ Window	Danger	Power ON
	RGB LED	Ultrasonic	Photocell	Motor	Buzzer	
Function	Condition	Window detection	Handle detection	Window	Danger	

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2-2. Detailed Function

Mode 1: Smart Window

	ADC	Button1	Button2	Ultrasonic	Red LED	Blue LED
Function	Mode 1: Smart Window	Open the Window	Close the Window	Distance between Window and object	Ultrasonic detects an object (Dangerous state)	(Power ON)
	Motor	Buzzer	RGB LED			
Function	L: open R: close	The object is close to the window (Dangerous state)	Mode 1: G			

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2-2. Detailed Function

Mode 2: Driver state Warning Mode

	ADC	Photocell	Red LED	Blue LED	Motor	Buzzer
Function	Mode 2: Driver state Warning	Handle detects the hands	Not holding the handle (Dangerous state)	(Power ON)	Open the window (Dangerous state)	Sound every 10sec & (Dangerous state)
	RGB LED					
Function	Mode 2: B					

Thank you