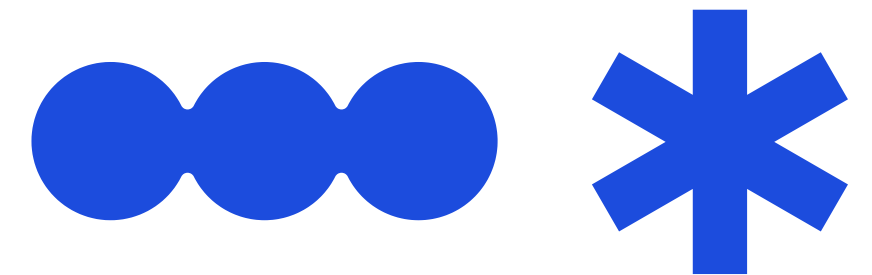


Mobile Remote Car & Controller

2024.08.12

Lee Jaepyeong



CONTENTS

Mobile Remote Car & Controller

01 Introduction

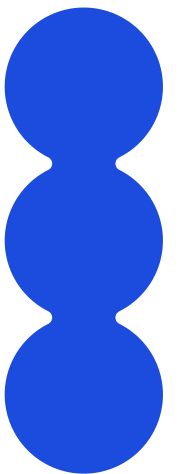
02 Goal & Timeline

03 HW Design

04 SW Design

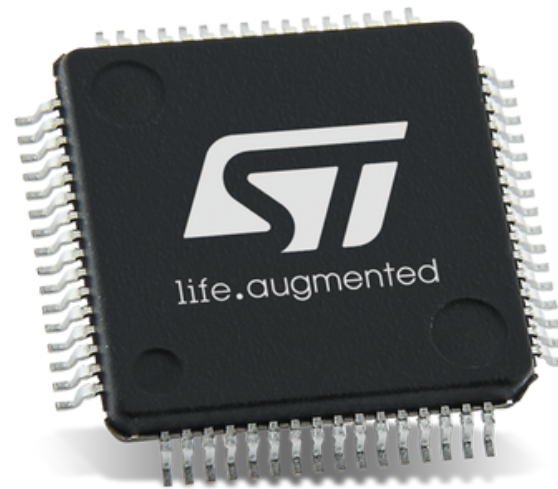
05 Demo. Video

06 Q & A

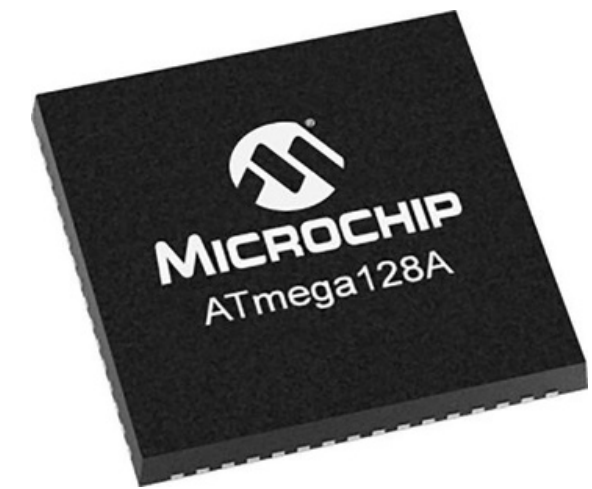


Why STM32 ?

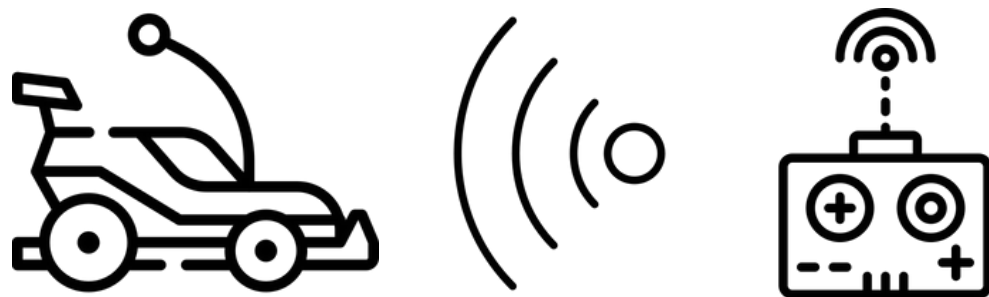
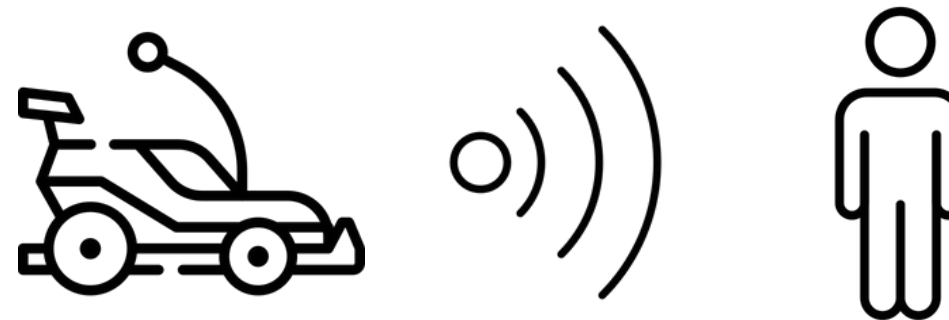
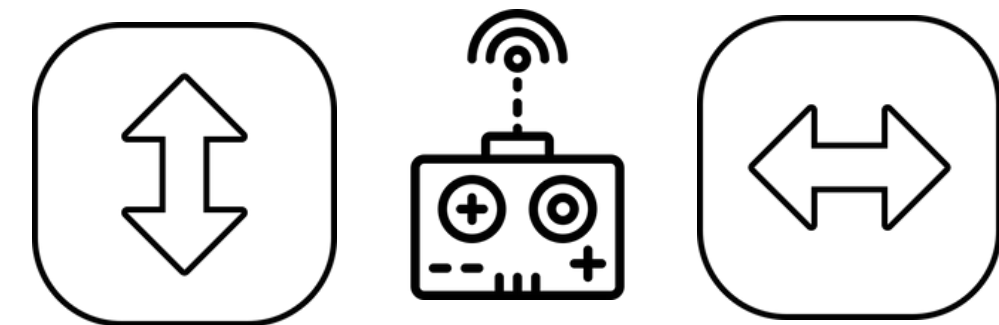
STM32F4 (ARM)



ATMEGA128A (AVR)

**Performance****32-bit****8-bit****Accessability****Experts****Beginners****Market price****Relatively High****Low****Utility****Complex Application****Simple Application**

GOAL : IMPLEMENTATION OF MRC

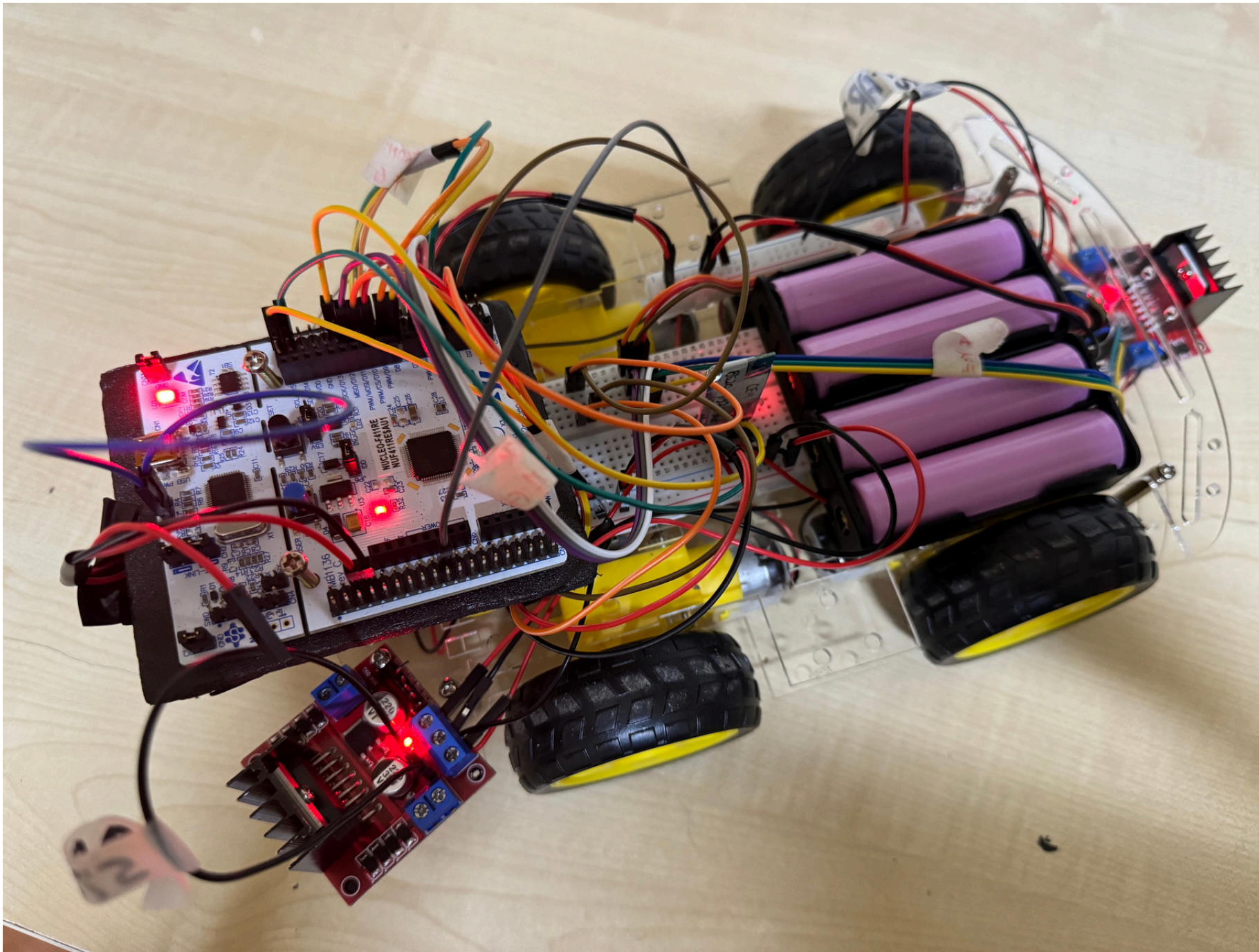
**FULLY-WIRELESS
REMOTE CONTROL****OVERRIDING
EMERGENCY BRAKE****CONTINUOUS 2-AXIS
CONTROL**

FULLY-WIRELESS
REMOTE CONTROL

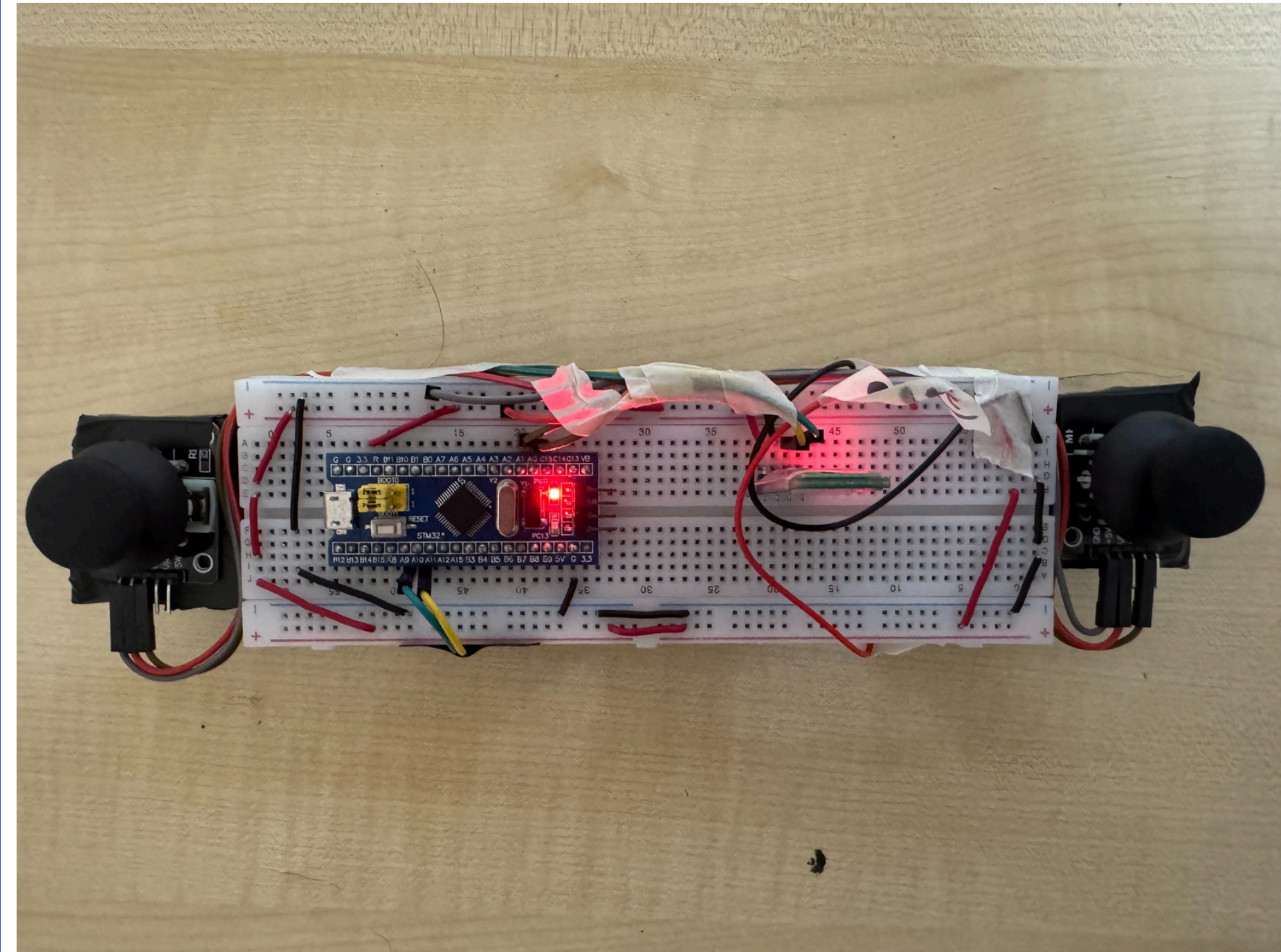
OVERRIDING
EMERGENCY BRAKE

CONTINUOUS 2-AXIS
CONTROL

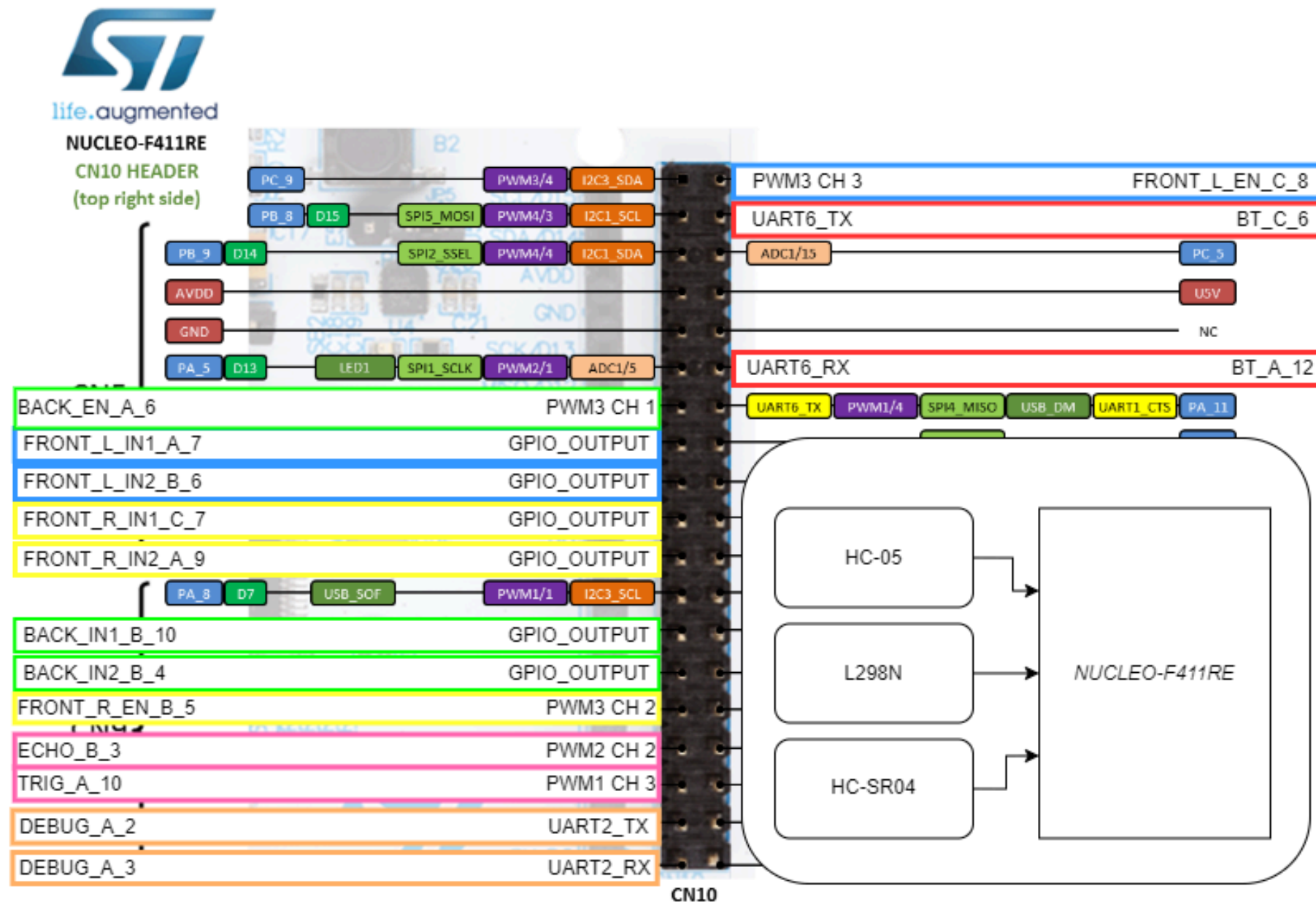
	07/30 (TUE)		07/31 (WED)		08/01 (THU)		08/02 (FRI)		08/03 (SAT)	
HW Design	MRC Assembly						Controller	Power Source Seperation	System Integration	OFF-PROJECT
SW Design		Ultrasonic with PWM	Joystick with DMA	DC Motor with PWM	Implementation of Steering Logic		Migration to STMF103			
Circuitry Design		HW-504, HC-SR04		DC Motor, 18650 BAT			HC-05, HC-06			
Test & Debug		HW-504, HC-SR04		DC Motor, L298N		Logic Test	BT Tx/Rx Test		Test Drive	



Mobile Remote Car

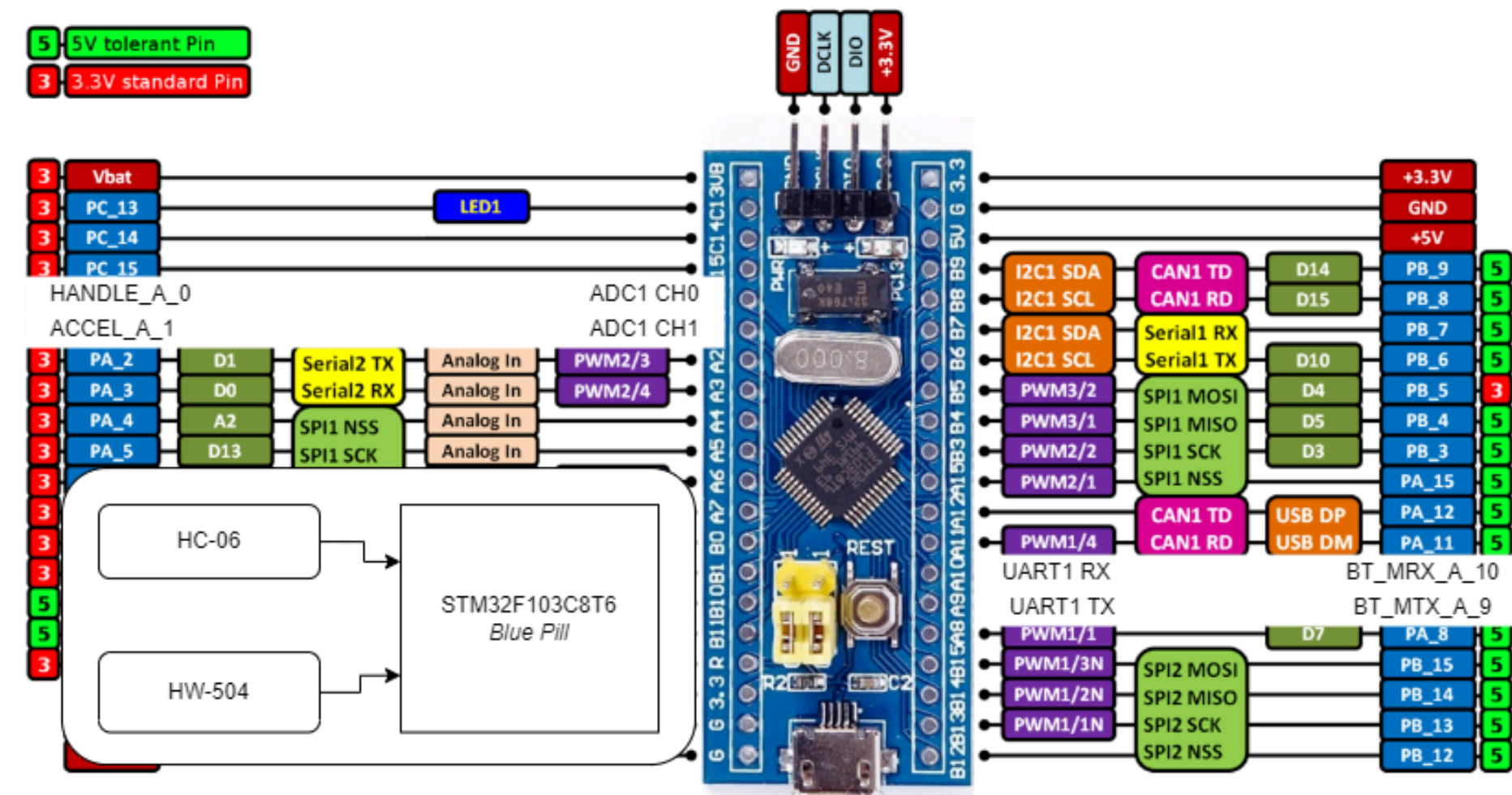


Mobile Remote Car Controller



Nucleo F441RE

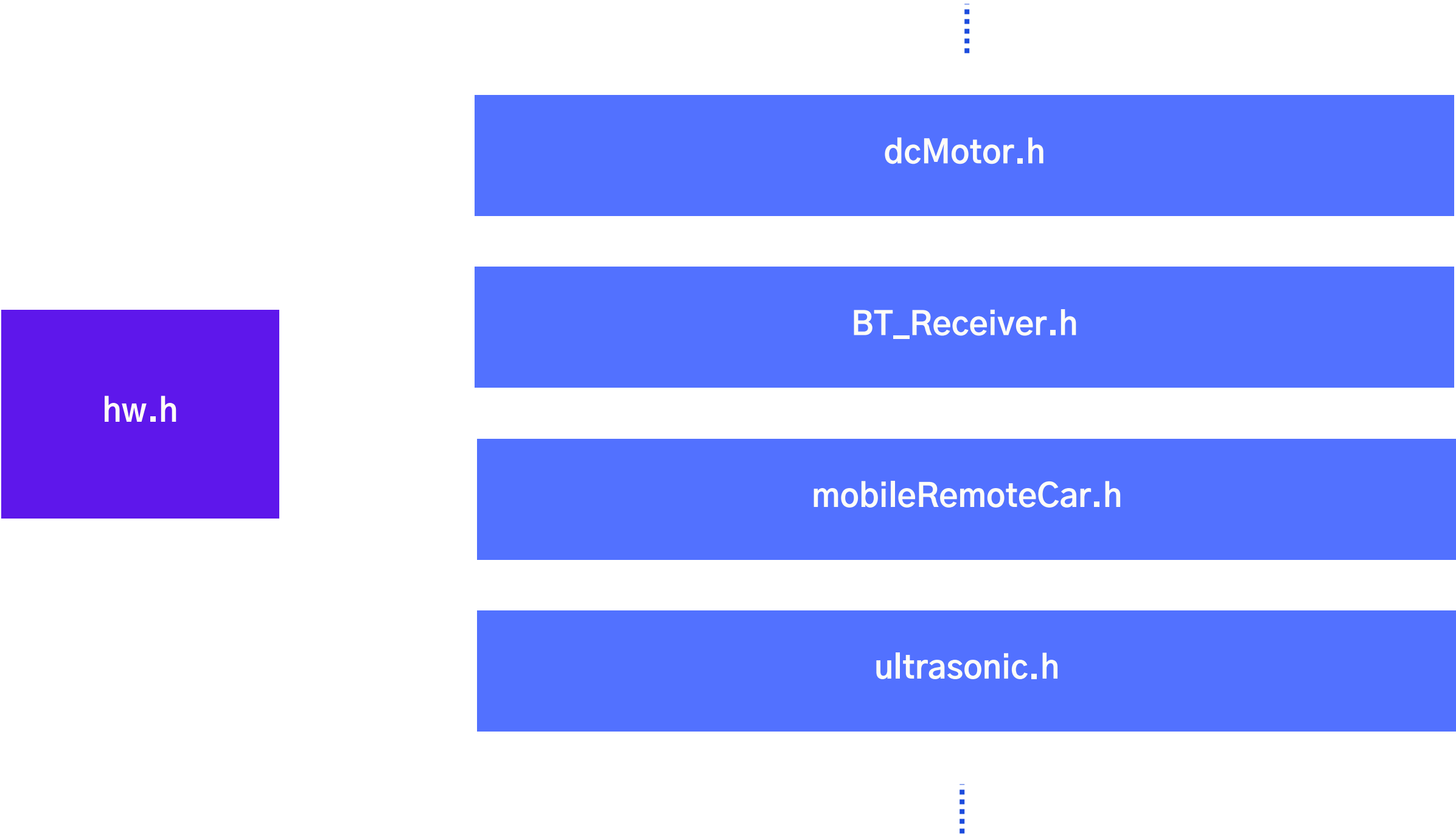
Mobile Remote Car

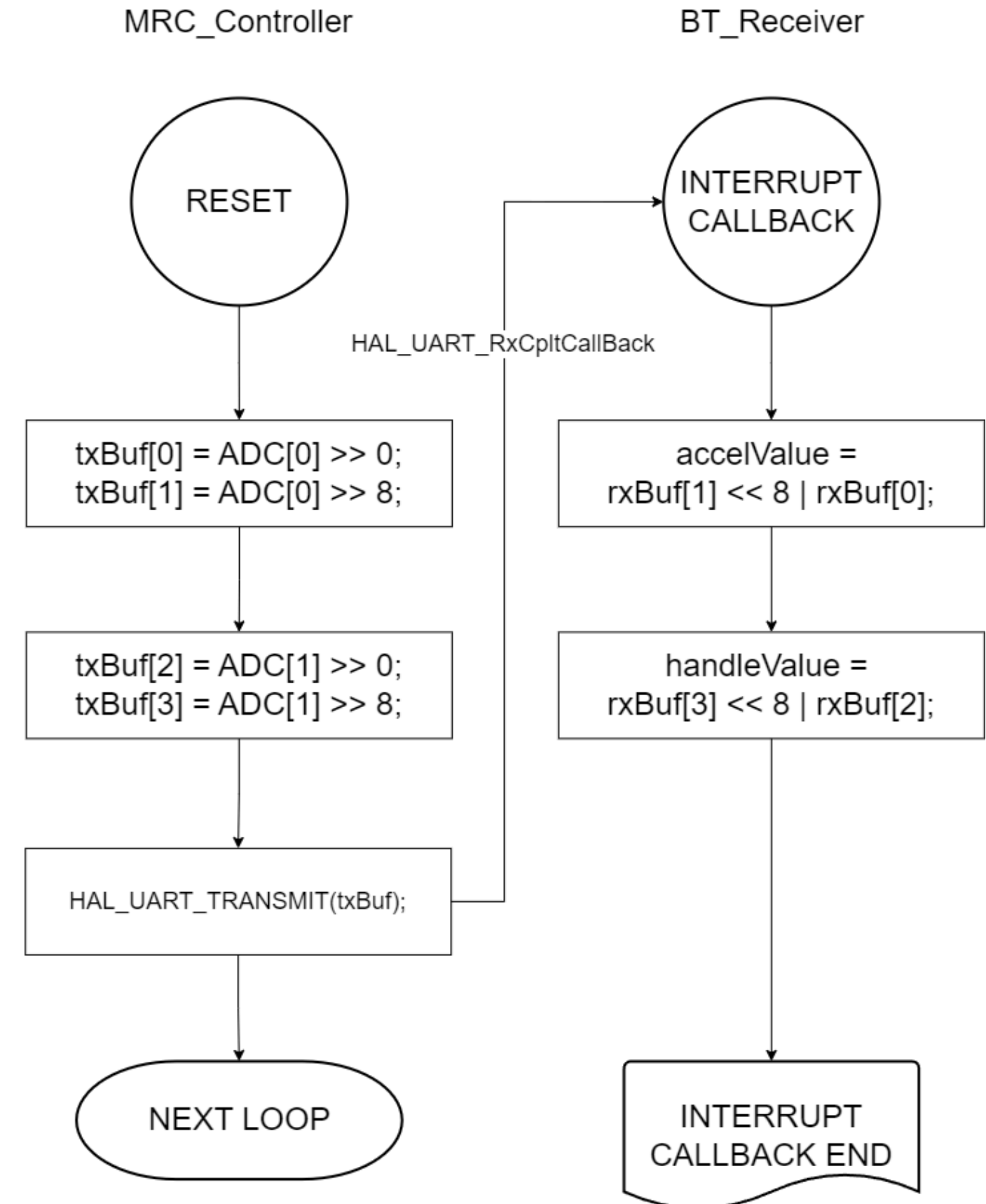
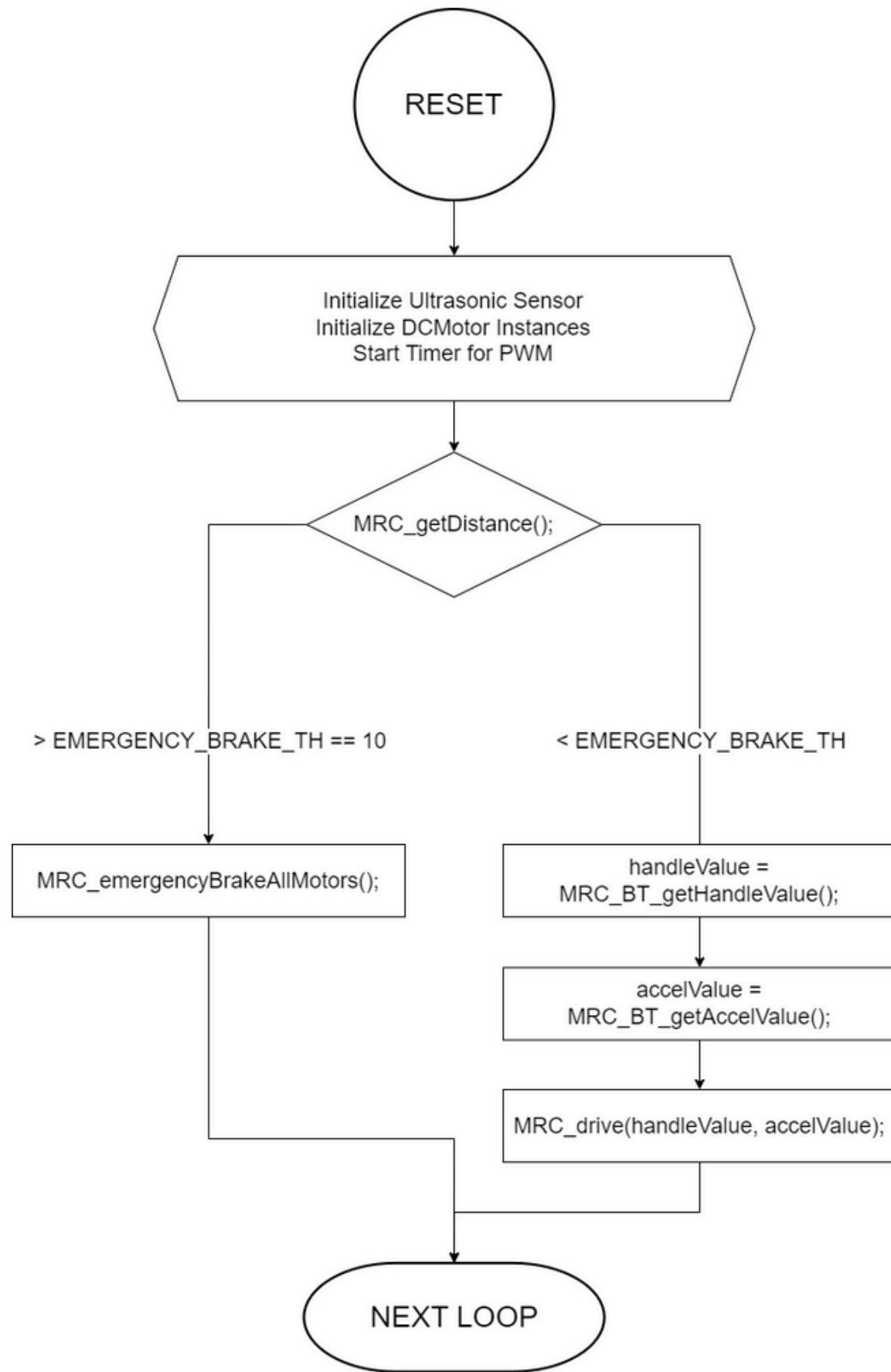


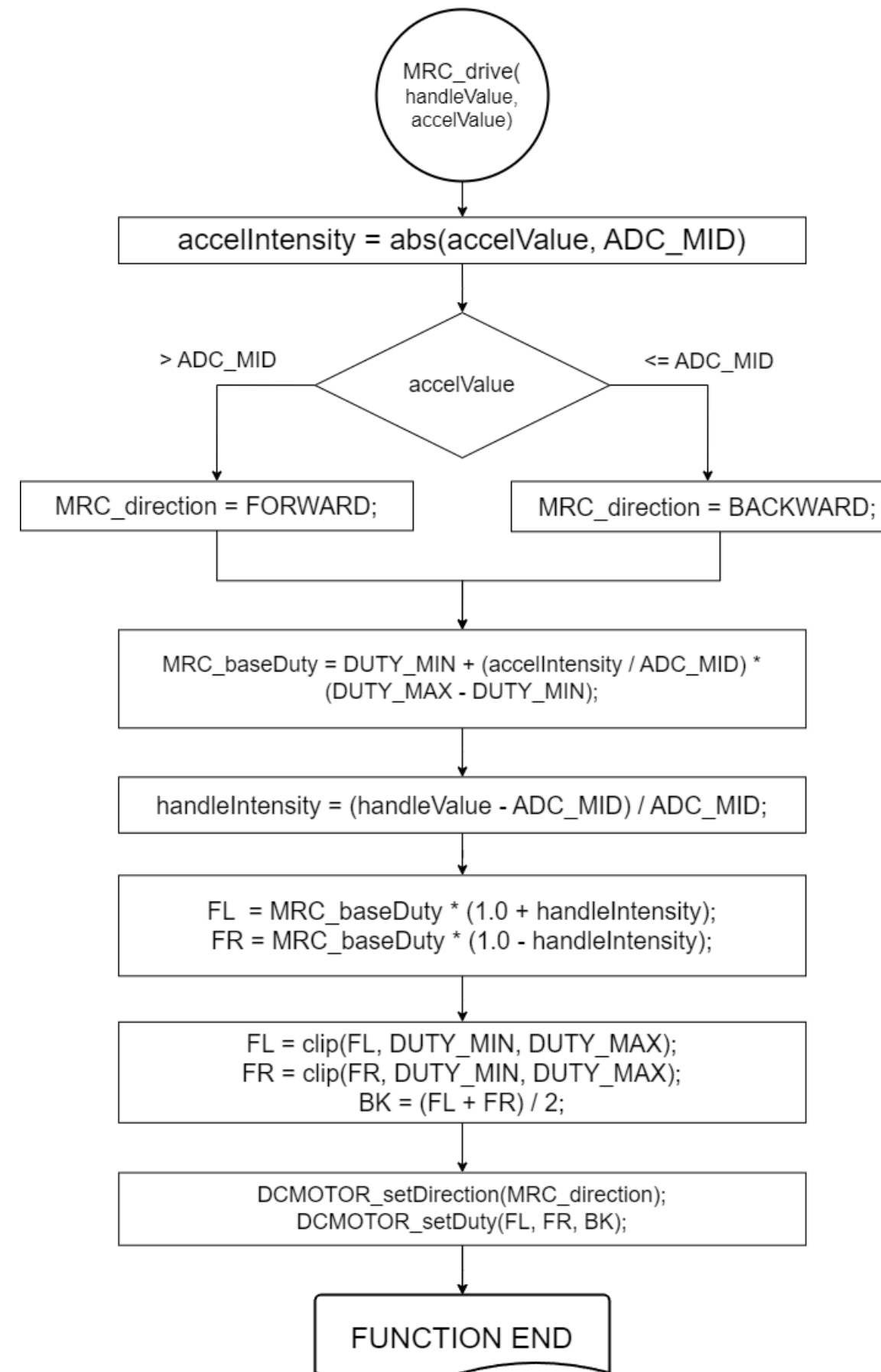
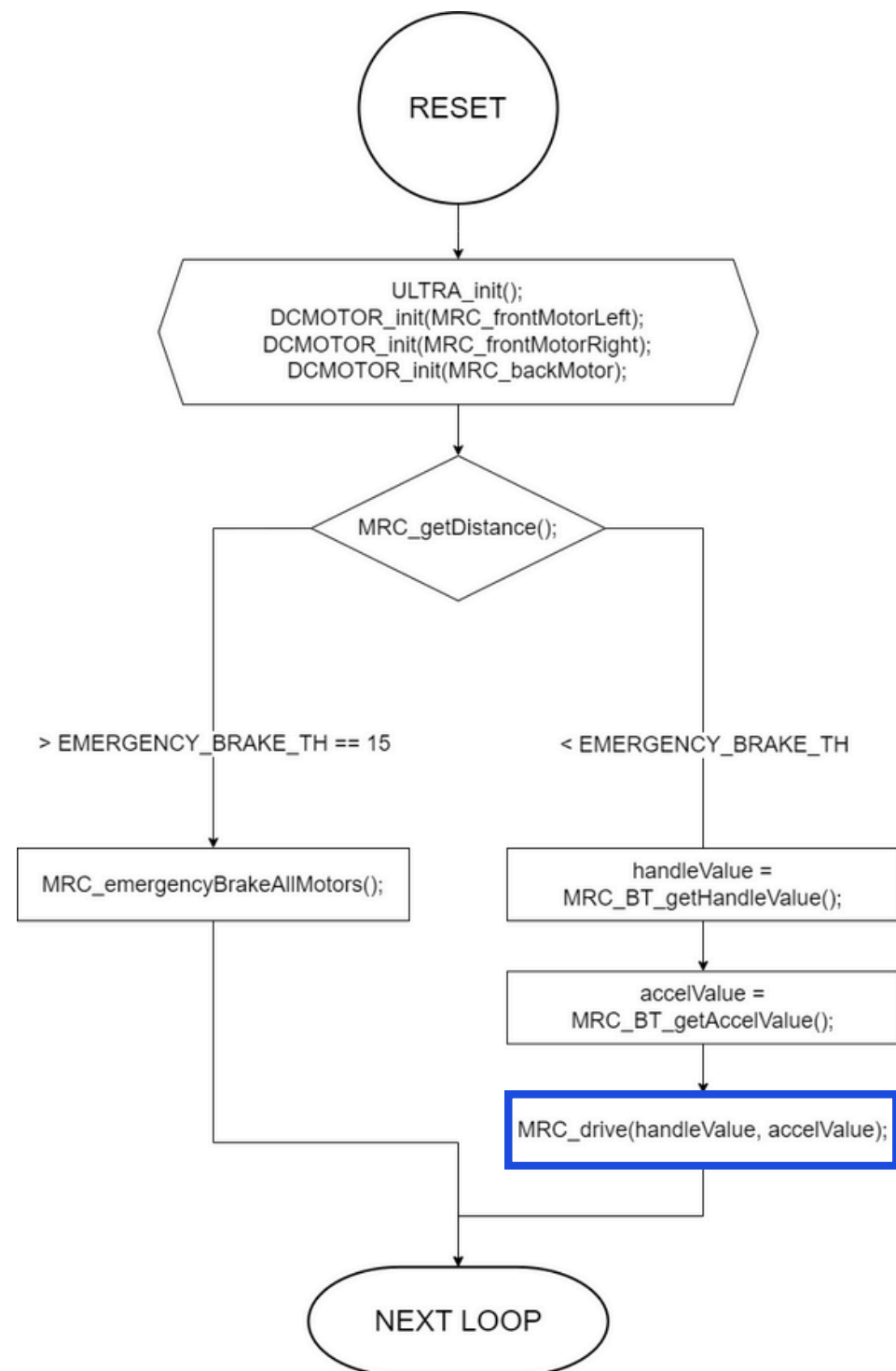
STM32F103C8T6 Blue Pill

Mobile Remote Car Controller

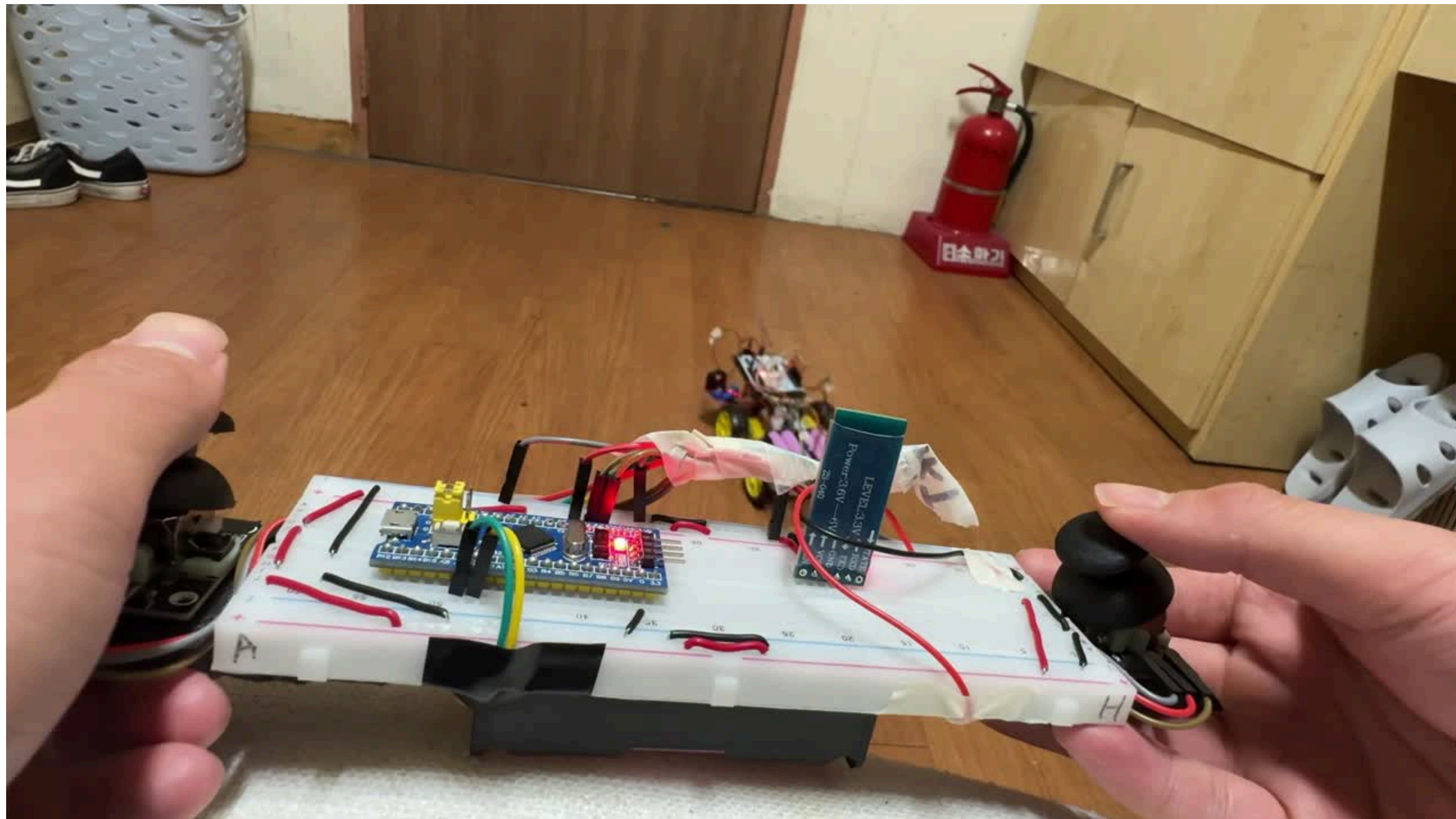
Firmware Hierarchy







Demo. Video (37s)



Q&A

Mobile Remote Car & Controller

Conducted by

Lee Jaepyeong

01 Introduction
(Why STM32?)

02 Goal & Timeline
(Objectives)

03 HW Design
(Block Diagram, PinMap)

04 SW Design
(Hierarchy, FlowChart)

05 Demo. Video

06 Q & A

