Contents

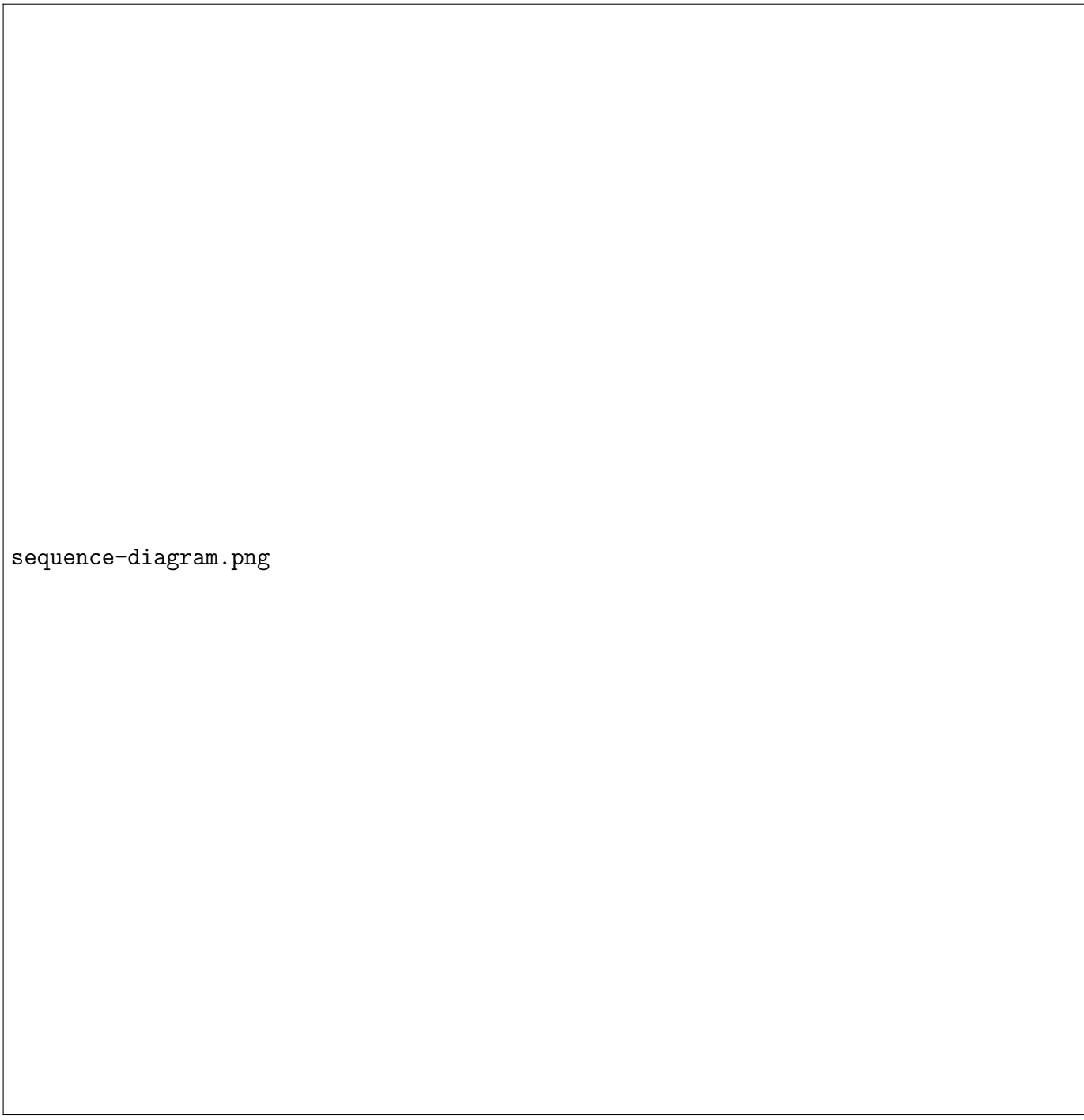
1 Block Diagram

This is where block diagram will be put. Depict inputs and outputs to the embedded system.

block-diagram.png

2 Sequence Diagram

Sequence Diagram would be here. You should show the relationships between modules (by sending variables, commands etc.) clearly and thoroughly. Explain each module as in previous lab reports.


sequence-diagram.png

3 LED Connection

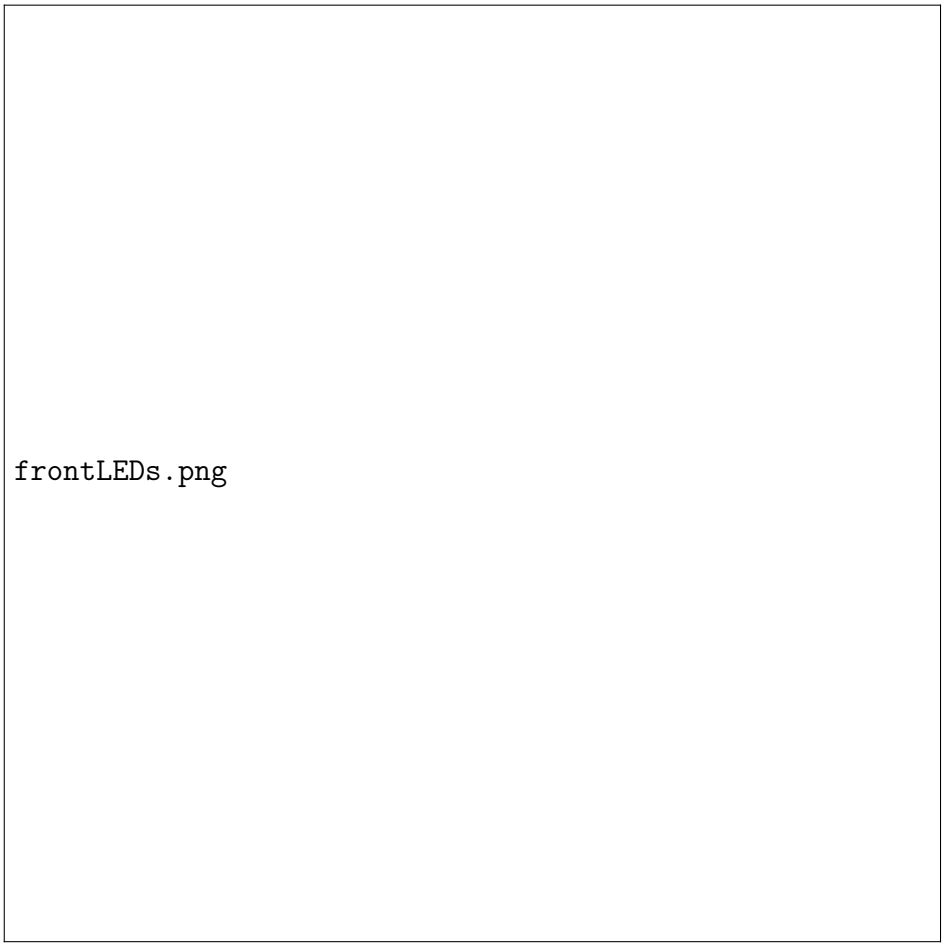
LED connection material described in the report (Section 4) definition goes here.

3.1 Table

	LPC4088 Pin	**Pin Functionality**	**Reason**
Front-left LED	P1.3(P30)	PWM0[2]	Pulse width modulation
Front-right LED	P1.2(P29)	PWM0[1]	Pulse width modulation
Back-left LED	P1.5(P28)	PWM0[3]	Pulse width modulation
Back-right LED	P1.6(P27)	PWM0[4]	Pulse width modulation

Table 1: LED Connection

3.2 Circuit Schematic




backLEDs.png

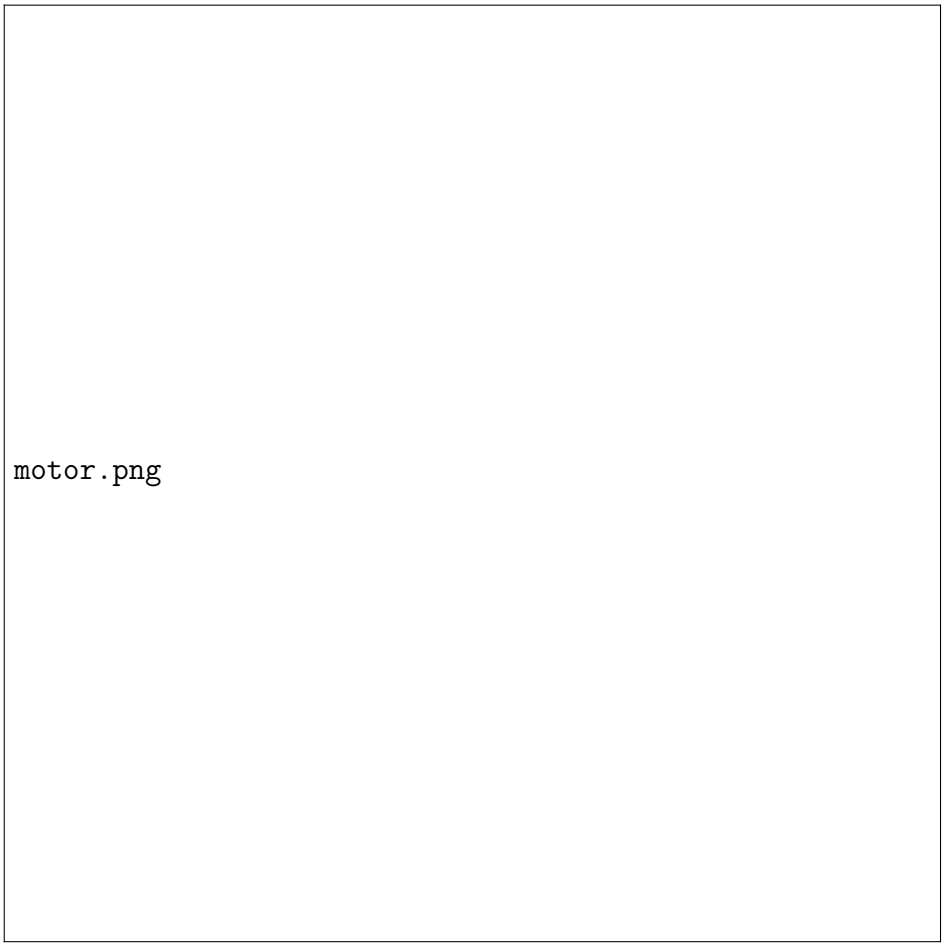
4 Motor - Driver Connection

Motor - Driver Connection material described in the report (Section 5) definition goes here.

4.1 Motor-Driver Connection Description

2 DC motors will be connected to the driver via input pins on the driver. A enable and B enable pins will be connected to pins on the LPC board that gives PWM function.

4.2 Basic Schematic for Connections



5 Driver - Board Connection

Driver - Board Connection material described in the report (Section 6) definition goes here.

	LPC4088 Pin	**Pin Functionality**	**Reason**
IN1	P1.24(P5)	P0[0]	GPIO
IN2	P1.23(P6)	P0[1]	GPIO
IN3	P0.7(P13)	P0[7]	GPIO
IN4	P0.8(P12)	P0[8]	GPIO
ENA	P1.7(P26)	PWM0[5]	Pulse width modulation
ENB	P1.11(P25)	PWM0[6]	Pulse width modulation

Table 2: Driver-Board Connection

6 Ultrasonic Sensor - Board Connection

Ultrasonic sensor - Board Connection material described in the report (Section 7) definition goes here.

	LPC4088 Pin	**Pin Functionality**	**Reason**
TRIGGER	P0.9(P11)	T2MAT3	Match event
ECHO	P0.24(P16)	T3CAP1	Capture event

Table 3: Ultrasonic Sensor-Board Connection

6.1 Basic Schematic for Connections

7 Left Light Sensor - Board Connection

Left light sensor - Board Connection material described in the report (Section 8) definition goes here.

	LPC4088 Pin	**Pin Functionality**	**Reason**
ADC	P0.26(P18)	ADC0[3]	Analog to digital conversion

Table 4: Left Light Sensor-Board Connection

7.1 Basic Schematic for Connections

8 Right Light Sensor - Board Connection

Right light sensor - Board Connection material described in the report (Section 9) definition goes here.

	LPC4088 Pin	**Pin Functionality**	**Reason**
ADC	P0.25(P17)	ADC0[2]	Analog to digital conversion

Table 5: Right Light Sensor-Board Connection

8.1 Basic Schematic for Connections

9 Trimpot

Trimpot is connected to P15 on the board.