**Design document for Toy Car**

Library

#include <SoftwareSerial.h>

GPIO definition

//Define motor pins

const int motorFrontA = 8; // Pin 8 of L298

const int motorFrontB = 9; // Pin 9 of L298

const int motorBackA = 10; // Pin 10 of L298

const int motorBackB = 11; // Pin 11 of L298

//Bluetooth Receive, Transmit (RX, TX)

const int bt\_RX = 5;

const int bt\_TX = 6;

//Buzzer & Speaker to Arduino UNO

const int buzzer = 2 ;

//LEDs

const int LED\_L = 3;

const int LED\_R = 4;

//Ultrasonic sensor

const int UTSN\_TRIG = 12;

const int UTSN\_ECHO = 13;

Global variables

int btData; //to contain Bluetooth data

long utsnData; // to contain Ultrasonic Sensor data

Features definition

a:

Light on

b:

Light off

c:

Buzzer on

d:

Buzzer off

e:

Go Straight

f:

Turn Left

g:

Turn Right

f:

Go Forward

i:

Go Backward

j:

Stop

Note:

* Data from Ultrasonic sensor is received as cm.
* Not decide how to deal with sensor data yet.