```
/*****************************************************************************
 * Name:   Smart Robot Car
 * Description: STM32 microcontroller and ENEL384 Board
 * Output interface systems: PWM; GPIO
 * ADC take analogy input
 * Two Digital sensors and One Analogy sensors
 * Authors: Li Pan
 *
 *****************************************************************************/
#include <stdio.h>
#include "stm32f10x.h"
#include "GPIO.h"
#include "LCD.h"
#include "CLOCK.h"
#include "ADC.h"
#include "PWM.h"


int main(void)
{
            int i;
            int j;
            clockInit();

            PWM_INIT(  );
            PWM2_INIT(  );

            led_IO_init();

            LCD_IO_PC();
            INIT_LCD();
            ADC_INIT();


            while(1)
            {

                  BRIGHT2LCD();

                  CMD2LCD(LCD_LN2);

                  LED();
                  //check the left sensor output
                  if((!read_LSensor( ))&&read_RSensor( ))
                  {
                        SetDutyCycle( 95 );
                        SetDutyCycle2( 10 );
                        STR2LCD("Turn right");
                        RIGHT_LED();

                  }
                  //check the right sensor output
                  else if((!read_RSensor( ))&&read_LSensor( ))
                  {
```

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                        SetDutyCycle( 10 );
                        SetDutyCycle2( 85 );
                        STR2LCD("Turn left ");
                        LEFT_LED();

                  }
                  //check the both sensor output
                  else if((!read_RSensor( ))&&(!read_LSensor( )))
                  {
                        SetDutyCycle( 0 );
                        SetDutyCycle2( 0 );
                        STR2LCD("Stopping  ");
                        STOP();
                  }
                  //both sensor without output
                  else
                  {
                        SetDutyCycle( 60 );
                        SetDutyCycle2( 60 );
                        STR2LCD("Driving    ");
                        NO_TURN();
                  }


            }

}
```