#include <iobb.h> //includes GPIO I/O header files

#include <stdio.h> //includes standard I/O header files

#include <unistd.h> //includes POSIX API library for adding delay in operations

#define GreenLED 8,16 //Green led connected to pin 16 of header P8

#define RedLED 8,15 //Red led connected to pin 15 of header P8

#define LMcheckDoorOpened 9,30 //Limit switch for door open connected to pin 30 of header 9

#define LMcheckDoorClosed 9,12 //Limit switch for door close connected to pin 12 of header 9

int main(void) // main function

{

iolib\_init(); // initializing GPIO I/O library

iolib\_setdir(GreenLED, DigitalOut); //setting GPIO pin for Output

iolib\_setdir(RedLED, DigitalOut);

iolib\_setdir(LMcheckDoorOpened, DigitalIn); //setting GPIO pin for Input

iolib\_setdir(LMcheckDoorClosed, DigitalIn);

while(1) //continuous loop

{

if (is\_low(LMcheckDoorOpened)) //if pin 30 of header is low

{

printf("Door is open \n"); //print on terminal

pin\_high(RedLED); //Red LED will glow

usleep(1200000); //delay operation

}

else if (is\_high(LMcheckDoorOpened)) //if pin 30 of header is high

{

pin\_low(RedLED); //Red LED will not glow

}

if (is\_low(LMcheckDoorClosed)) // if pin 12 of header is low

{

printf("Door is Closed \n");

pin\_high(GreenLED); //LED will glow

usleep(1200000);

}

else if (is\_high(LMcheckDoorClosed)) //if pin 12 of header is high

{

pin\_low(GreenLED); // LED will not glow

}

}

iolib\_free(); //end of program (freed library resources)

return(0); //return a value

}