

```
#define sample_freq 11025.0
//get and set the frequency
from wav conversion tool GUI
int i=0;
//interrupt routine to play
next audio sample from array
in flash
void
lamp_plug_on_off_from_latch(void);
void temp_buzzer(void);
void apply_uart_states(char
state);
void display_temp(void);
void door_open_pin(void);
void playAudio ( uint16_t
Index , uint16_t volume);
void stopAudio (void);
void doorOpened();
//Global variables
//lamp and plug variables
char
previous_latch_lamp_state=0;
char
previous_latch_plug_state=0;
char
current_latch_lamp_state =
0;
char
current_latch_plug_state =
0;
char current_door_flag = 0;
char door_door_flag = 0;
bool lamp_state = 0;
bool plug_state = 0;
DigitalIn door_pin(PTE5);
//
//
DigitalIn
latch_lamp_pin(PTE4); //
//
DigitalOut
relay_lamp_pin(PTD6); // in2
//
DigitalIn
latch_plug_pin(PTA17);
DigitalOut
relay_plug_pin(PTA16); // in1
//
DigitalOut buzzer(PTC16);
//InterruptIn Door(PTD4,
PullUp);
DFPlayerMini speaker
(PTE22,PTE23);
//temp variables
float temp = 0;
float open_value = 200.0;
float closed_value = 300.0;
LM35 temp_sensor(PTB0);
char temp_value;
char door_open_value;
char* door_closed_value;
//uart
Serial
uart(PTD0,PTD1,9600); //
char state = 0 ;
```

