System

Web Camera
+
Microphone
[Lenovo
Essential FHD
Webcam
4XC1B34802]

ESP8266-12F   PAM8403   3W 4ohms x 2
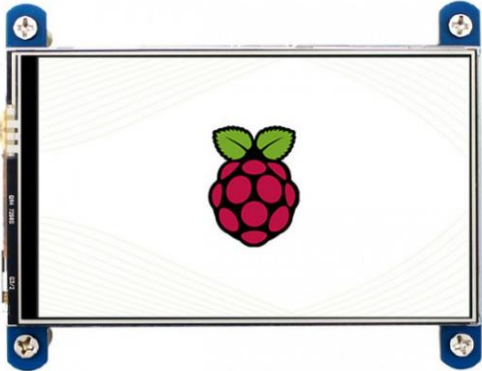
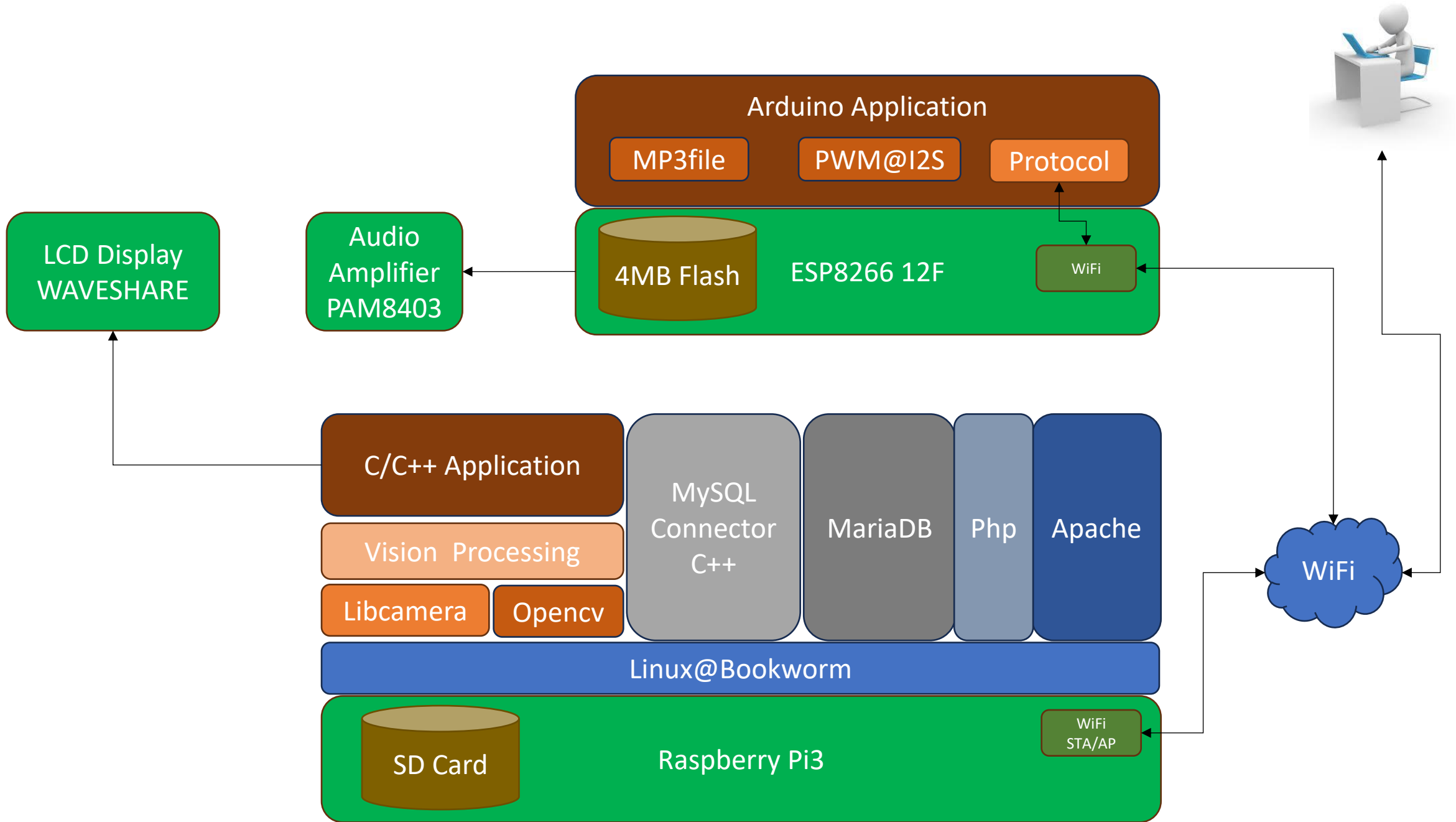5V 2A

Wi-Fi

USB

2.4
Ghz

2.4Ghz RF
Mouse

4inch Resistive Touch Screen LCD,
480×800, HDMI, IPS, Low Power
SKU: 12030
Part Number: 4inch HDMI LCD
Brand: Waveshare

HDMI
GPIO

5V 2A

System

ESP 8266 -12F

J1
USB_B_Micro

VBUS 1
Shield
GND
D+ 3
D- 2
ID 4
6 5

1000uf
C_Polarized

U1
ESP-12F

8 VCC

1 RST
3 EN
2 ADC
9 CS0
10 MISO
11 GPIO9
12 GPIO10
13 MOSI
14 SCLK

15 GND

GPIO0 18
GPIO1/TXD 22
GPIO2 17
GPIO3/RXD 21
GPIO4 19
GPIO5 20
GPIO12 6
GPIO13 7
GPIO14 5
GPIO15 16
GPIO16 4

R1
2.2K

10uf
C_Polarized

C1
0.022uf

D1
BLED

D2
WLED

U2
PAM8403D

6 4
VDD PVDD

7 INL
8 VREF
10 INR
12 SHDN
5 MUTE

GND PGND
11 2

LOUT+ 1 1
LOUT- 3 2

ROUT- 14 1
ROUT+ 16 2

LS1
Speaker

LS2
Speaker

ESP 8266 -12F

```
┌──────────────┐
│     Boot     │◄──────────────────────┐
└──────┬───────┘                        │
       │                                │
       ▼                                │
┌──────────────┐                        │
│     Load     │                        │
│ configurations│                       │
│ from config.txt│                      │
└──────┬───────┘                        │
       │                                │
       ▼                                │
     ◇◇◇◇◇                              │
    ◇      ◇                            │
   ◇ Able to ◇      No      ┌───────────────────────────┐
   ◇ connect ◇─────────────►│         AP mode           │
   ◇ to WiFi? ◇             │  Web server @10.10.10.1   │
    ◇      ◇                │      ECSYS_AP(ssid)       │
     ◇◇◇◇◇                  │  ECSYS_PASS(password)     │
       │                    │       webkey(key)         │
       │ Yes                └───────────────────────────┘
       ▼
┌──────────────┐
│    Normal    │
│  Operation   │
└──────────────┘
```
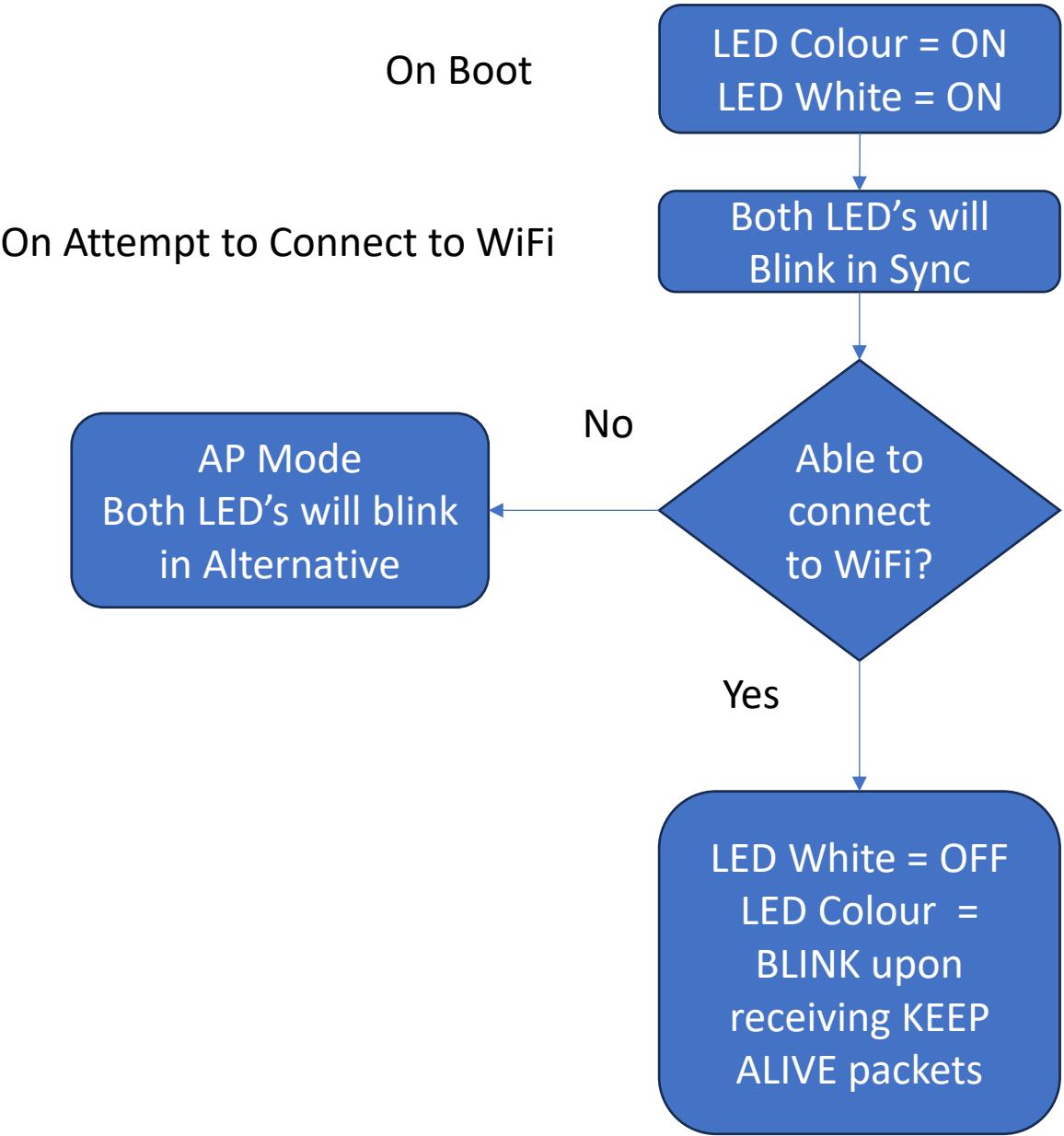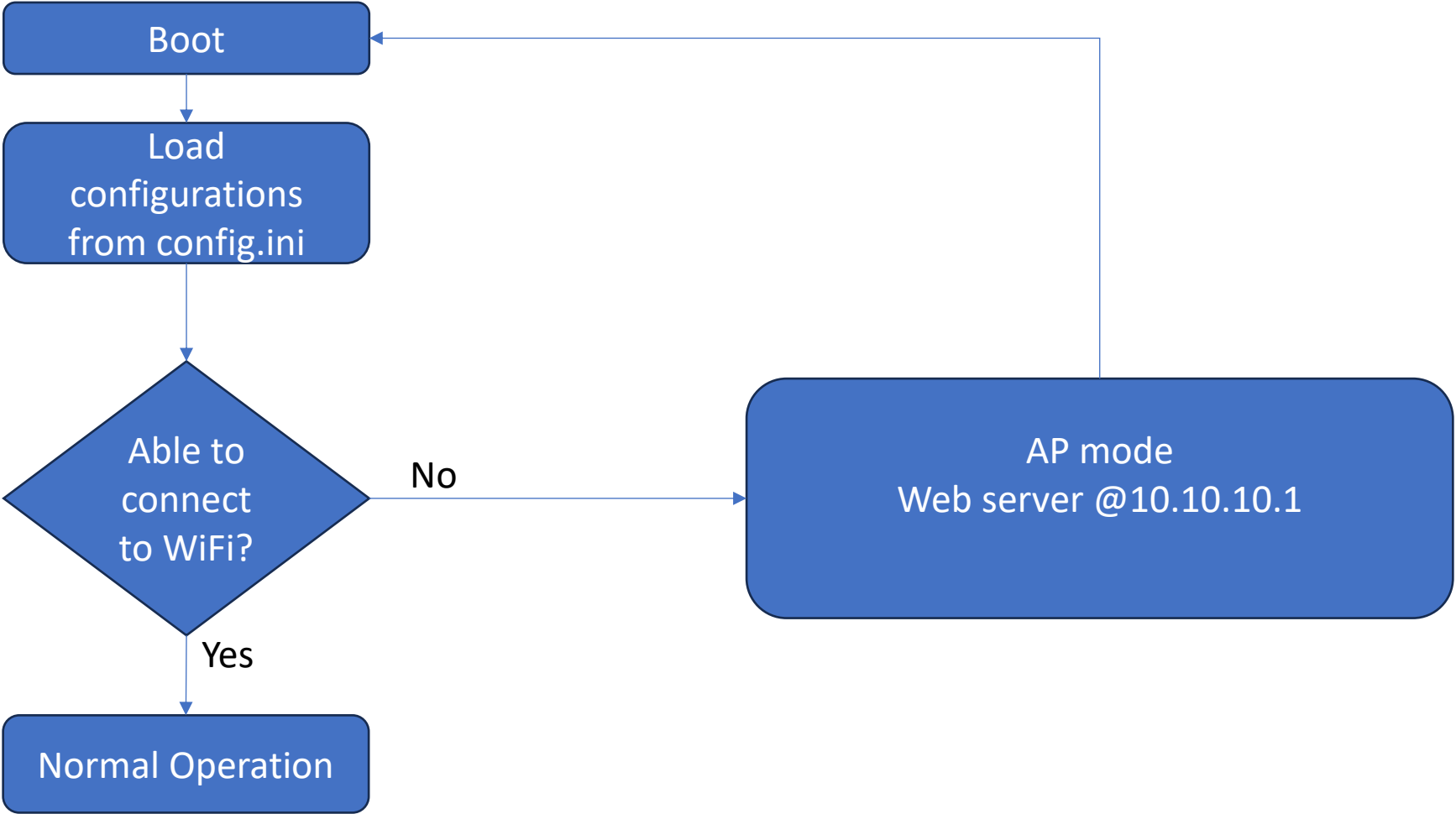
ESP 8266 -12F

On Boot

On Attempt to Connect to WiFi

WiFi_SSID:
WiFi_PASSWORD:
KEY: [Reboot]

```
LED Colour = ON
LED White = ON
```

```
Both LED's will
Blink in Sync
```

```
Able to
connect
to WiFi?
```

No →

```
AP Mode
Both LED's will blink
in Alternative
```

Yes ↓

```
LED White = OFF
LED Colour  =
BLINK upon
receiving KEEP
ALIVE packets
```

Raspberry Pi3

```
          ┌──────────────┐
          │     Boot     │◄──────────────────────────────┐
          └──────┬───────┘                               │
                 │                                        │
                 ▼                                        │
          ┌──────────────┐                                │
          │     Load     │                                │
          │configurations│                                │
          │from config.ini│                               │
          └──────┬───────┘                                │
                 │                                         │
                 ▼                                         │
           ◇──────────◇                     ┌──────────────────────────────┐
          ╱  Able to   ╲        No          │                              │
         ╱   connect    ╲──────────────────►│        AP mode               │
         ╲   to WiFi?   ╱                    │   Web server @10.10.10.1     │
          ╲            ╱                     │                              │
           ◇──────────◇                     └──────────────────────────────┘
                │
               Yes
                │
                ▼
          ┌──────────────┐
          │Normal Operation│
          └──────────────┘
```
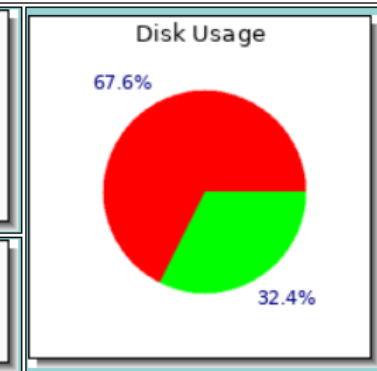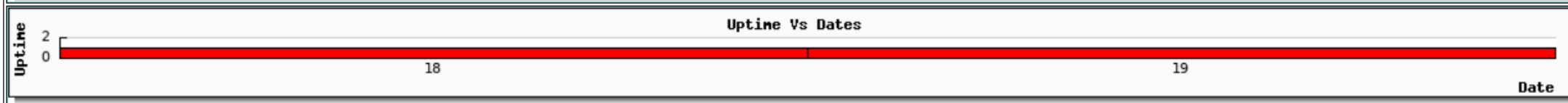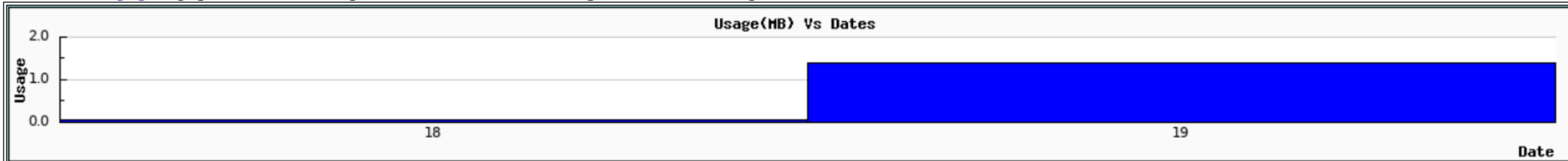
This is a private web site, any unautherized attempt to access will be prosecuted to the maximum permitted by the law.
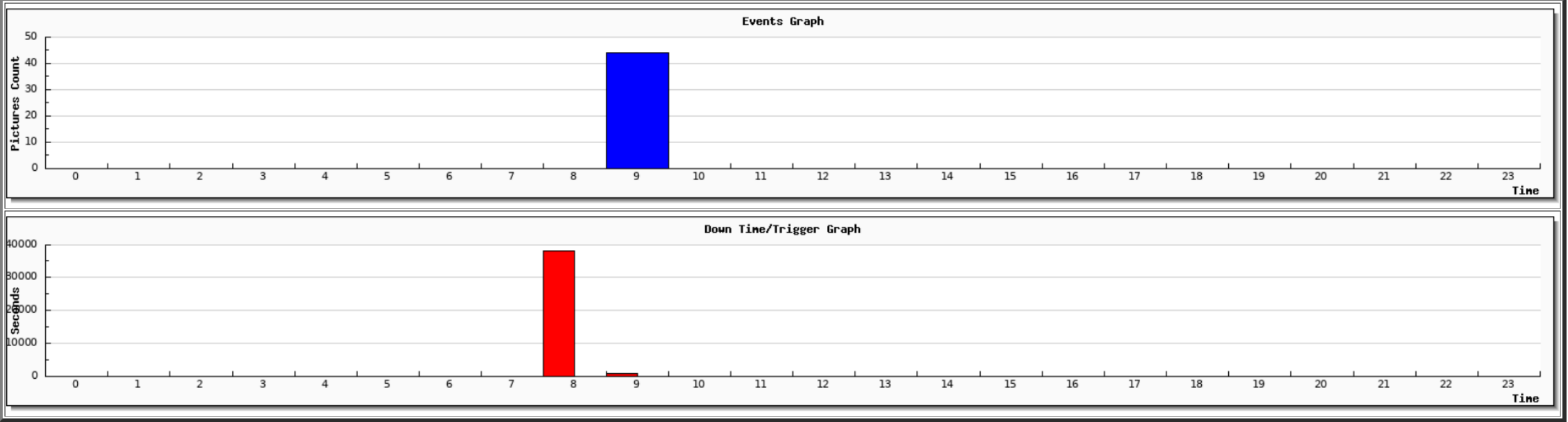
LOGIN

Enter Password

Login

094015@0:0:25[Alarm Disconnected]

2024-11-19 09:40:15

DEVICE CAMERA

2024-11-19 08:51:01
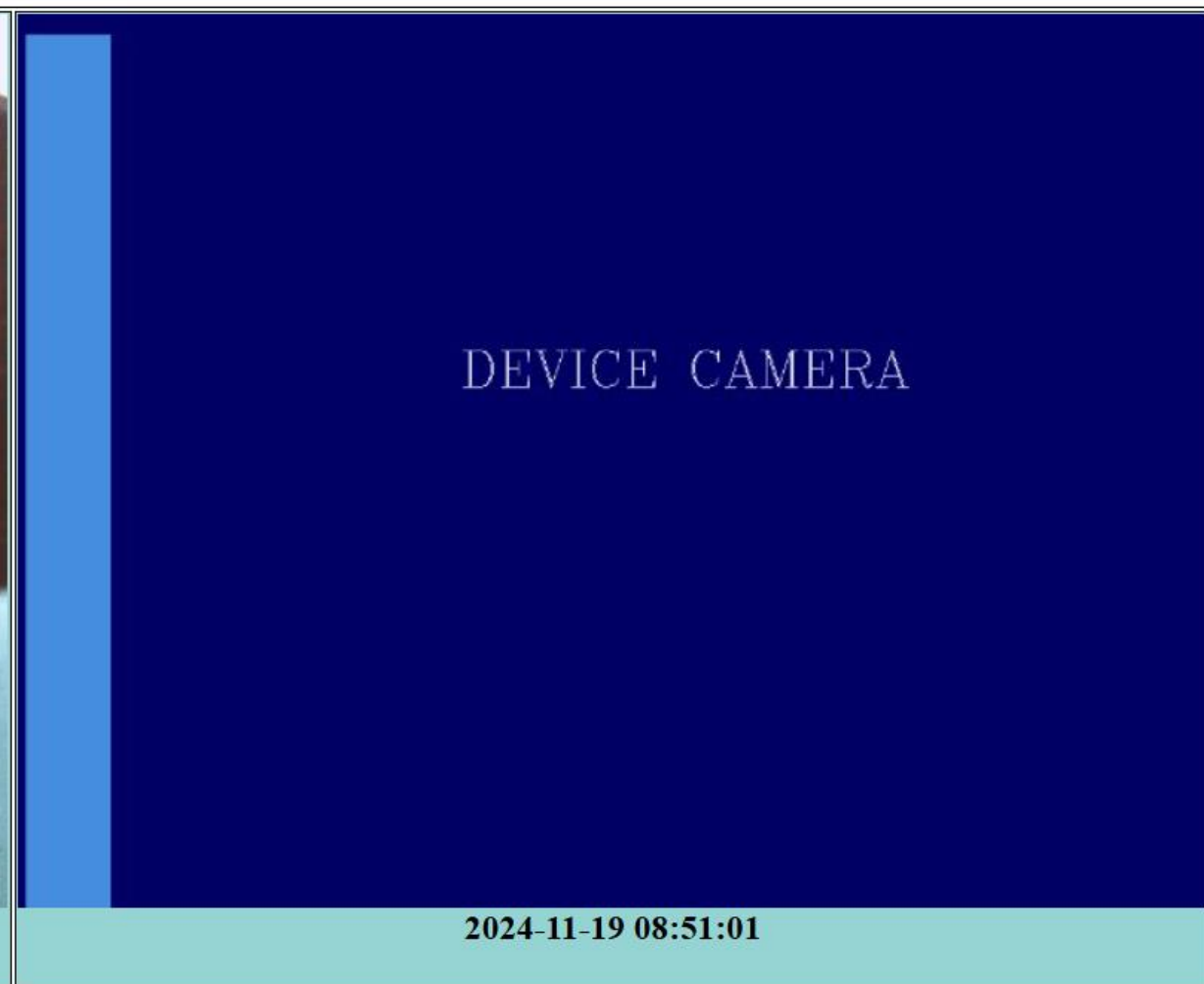
Show Summary
Show Configuration

Usage(MB) Vs Dates

Uptime Vs Dates

Disk Usage

67.6%

32.4%

18   19

Events Graph

Down Time/Trigger Graph

Select Hour: [0 ▾]

Submit
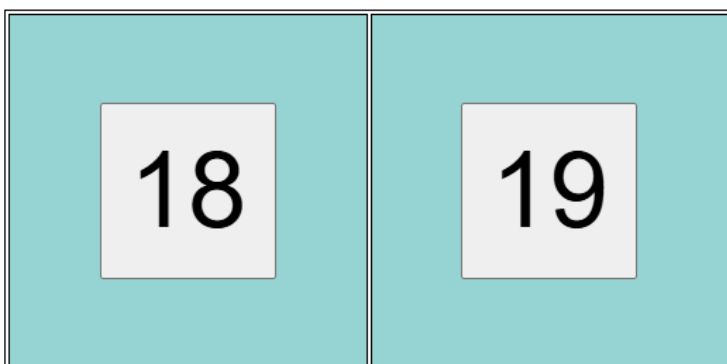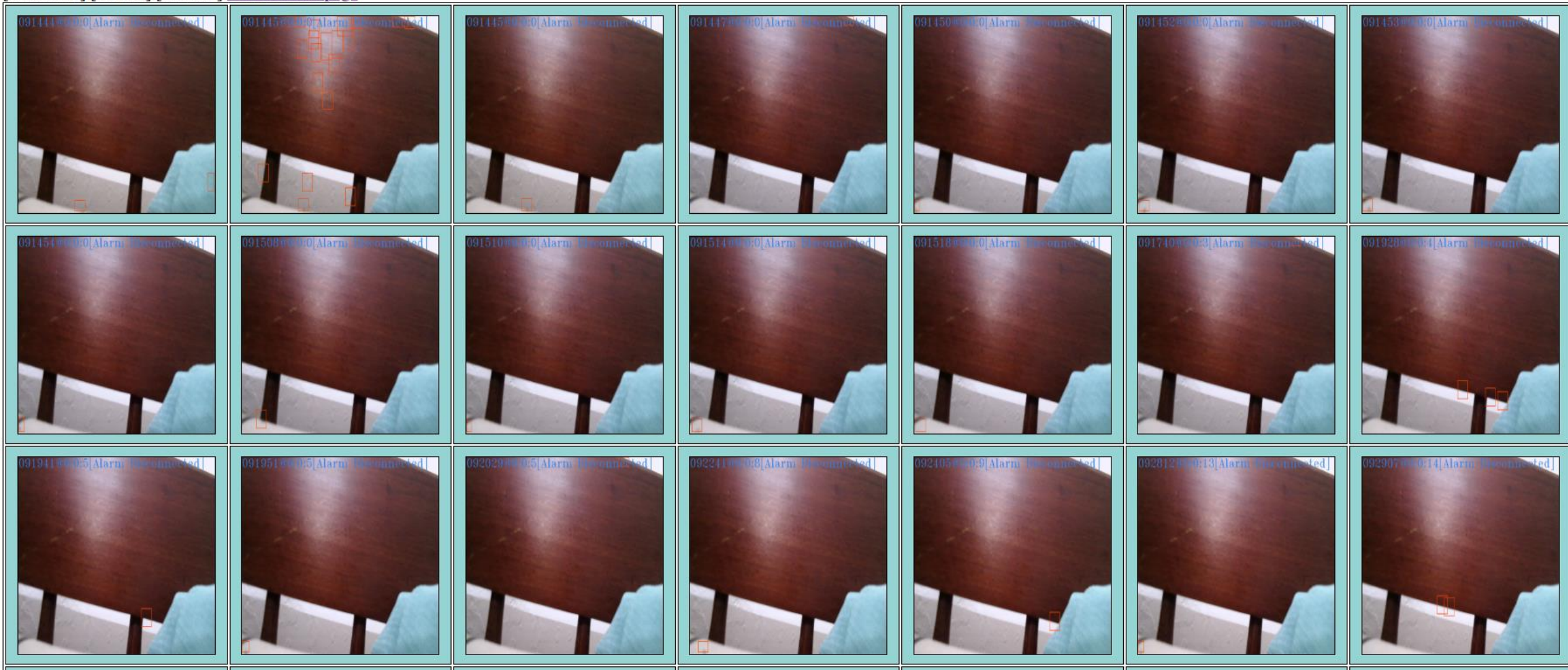
[Back to main page](#)

Network Configuration		Mouse Configuration		Camera Configuration		Microphone Configuration	

Mouse Configuration

ID	NAME
0	RAPOO Rapoo 2.4G Wireless Device
1	RAPOO Rapoo 2.4G Wireless Device System Control
2	RAPOO Rapoo 2.4G Wireless Device Consumer Control
3	RAPOO Rapoo 2.4G Wireless Device
4	ADS7846 Touchscreen
5	Lenovo FHD Webcam Audio: Lenovo

Network Configuration

NAME	STATUS
sarath_nivas_EXT	wlan0
ecsys_ap	--

Camera Configuration

ID	NAME
0	bcm2835-codec-decode
1	bcm2835-isp
2	Lenovo FHD Webcam Audio: Lenovo

Microphone Configuration

ID	NAME
2	Lenovo FHD Webcam Audio

Application Parameters	Value	Comments
mouse_level	0	0-5
mouse_name	RAPOO Rapoo 2.4G Wireless Device	name of mouse shown by mouse configuration
beacon_timeout	15	0-255 Seconds
dir_max	2	0-255 Directories
camera	Lenovo FHD Webcam Audio: Lenovo	no,name of the usb camera shown my camera configuration or pi_camera
micro	Lenovo FHD Webcam Audio	no,name of the microphone shown my microphone configuration
voice_threshold	100	< 90
voice_start	0	0-23 Hours
voice_duration	0	0-24 Hours
sec	seckey	secret key for communicating with WiFi Alarm
access	admin	password for accessing the web

Change Application Parameters		Change Application Parameters		Change Network Configuration	
MOUSE_LEVEL		VOICE_THRESHOLD			
MOUSE_NAME		VOICE_START		SSID	
BEACON_TIMEOUT		VOICE_DURATION		PASSWORD	
DIR_MAX		SEC		WiFi mode STA ADD	Submit
CAMERA		ACCESS	REBOOT		
MICRO					

WiFi Mode: STA

11:51:23

VOICE

UPTIME [0:0:0]

System Reboot in

29   Seconds

UPTIME [0:0:0]

WiFi Mode: STA

WiFi Alarm
Not Connected

VOICE

UPTIME [0:0:0]

WiFi Mode: STA

A L A R M

VOICE

UPTIME [0:0:0]