

# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "WiFi" tab



### Title Pane

**The Beast**  
Esparto v3.3.0.1

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

D3 D4 D2 D1 D6 D7 D5 D8 D0 AD

"raw" state

"cooked" state

gpio number

### GPIO Pane

"arduino" digital number

### WiFi Details

Admin User: admin  
Password: .....

Device: airtight  
Alexa Name: The Beast  
SSID: XXXXXXXX secure Ch: 6 -62dbi  
Password: .....

Update Details

### Status

MQTT OK NOT OK  
ALEXA OK NOT OK

factory reset!

reboot



click to switch tabs



blinkrate 100  
bwf BWF  
debounce 10

Date Wed Jul 17 2019  
Server 1 0.fr.pool.ntp.org  
Server 2 192.168.1.4  
GMT Offset 2  
Change NTP

Scheduled Alarms  
14:00 Daily  
13:00:00  
14:00:00  
00:00:00

17/07/2019 12:34:38 SS  
17/07/2019 12:34:35 HT  
17/07/2019 12:34:24 Vi  
17/07/2019 12:34:17 SS  
17/07/2019 12:33:34 SS  
17/07/2019 12:33:22 S/  
17/07/2019 12:33:02 HT  
17/07/2019 12:32:54 Vi  
17/07/2019 12:32:32 HT  
17/07/2019 12:31:01 Viewer 3fff5ba4 now on mqtt  
17/07/2019 12:31:01 HTTP: /ajax/mqtt/ from 192.168.1.20  
17/07/2019 12:31:01 HTTP: /ajax/ping/ from 192.168.1.20  
17/07/2019 12:30:09 SSE Client 3fff4adc n=3447039

cmd/config/get  
cmd/config/get  
cmd/config/set  
cmd/echo/listen  
cmd/echo/rename  
cmd/factory  
cmd/help  
cmd/info  
cmd/mqtt  
cmd/ntp  
cmd/pin/cfg  
cmd/pin/choke  
cmd/pin/flash  
cmd/pin/get  
cmd/pin/pattern  
cmd/pin/pwm  
cmd/pin/set  
cmd/pin/stop  
cmd/reboot  
cmd/rename  
cmd/switch

Set real time schedule

run any command without MQTT!

MQTT IP: 192.168.1.4  
Port: 1883  
MQTT User:  
Password:  
Will Topic: lwt  
Will Msg: Esparto has crashed!  
Change Broker

Device Board: airtight  
Wemos D1 Mini  
wemosd1mini  
17D848  
192.168.1.104

STABLE-2.1.2 RELEASE  
SDK 2.2.1(cfd48f3)  
Core 2.5.2=201902000

4194304  
40MHz  
DIO

SPIFFS 1048576  
OTA 522232  
452960 (86%)

1  
Software/System restart



add your graphs easily

"over-the-air" (OTA) updates or manual upload

Updates

SPIFFS Choose file No file chosen  
"Update SPIFFS"

Firmware Choose file No file chosen  
"Update Firmware"

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You define what the on/off switch does

## The MQTT tab

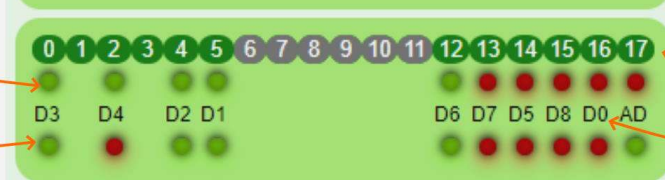


### Title Pane



"raw" state

"cooked" state



gpio number

### GPIO Pane

"arduino" digital number

### Tabs menu

mqtt-spy

File Configuration Connections

Control panel blackbox pi

Publish message

Topic

Data

Scripted publications

Subscriptions and received messages

New All airtight/stats/#

Message 1 / 114

Topic airtight/stats/Loops

Time 2019/07/17 13:24:38:686

Data [{"a": "36032", "c": "38170", "m": "Loops", "n": "1", "x": "41858"}]

Received messages summary [search topics: ]

Topic Content Browse Me

airtight/stats/ADC {"a": "283", "c": "302", "...}

airtight/stats/Heap {"a": "24128", "c": "2356", "...}

airtight/stats/Loops {"a": "36032", "c": "3817", "...}

Heap

Loops

min 17032 min 1

max 36552 max 41858

CMA

CMA

24086 37028

Bytes Per Second

Moving Average

Moving Average

24,200 41,000

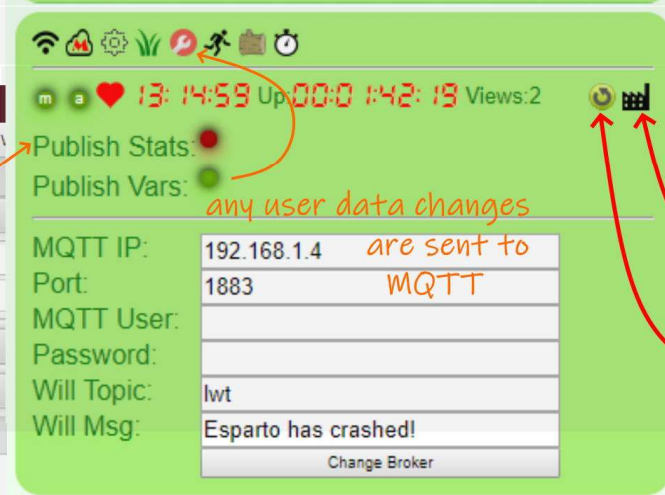
24,100 39,000

24,000 37,000

23,900 36,000

13:29:33 13:29:43 13:29:56

13:29:33 13:29:43 13:29:56



any user data changes

are sent to

MQTT

### Status

MQTT OK NOT OK

ALEXA OK NOT OK

factory reset!

reboot

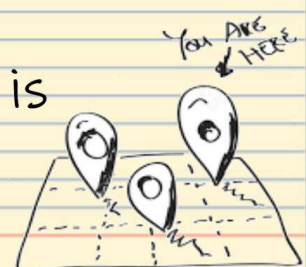


click to change to green to send stats to MQTT

Server can IP or domain name - can be switched at any time without a reboot

Username and password are optional

NODE-RED is great for stats!





# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "Gear" tab



### Title Pane



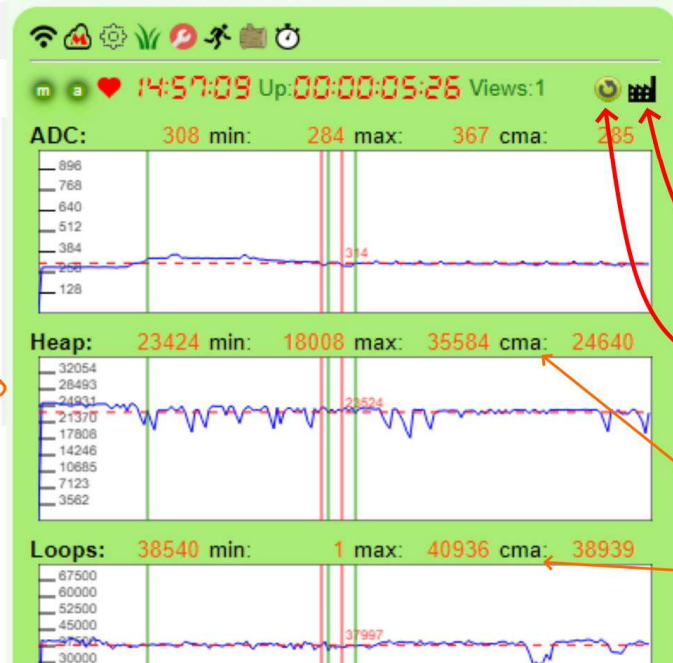
"raw" state

"cooked" state



### GPIO Pane

### Tabs menu



### Status

- m MQTT OK NOT OK
- a ALEXA OK NOT OK

you can choose which graphs to include...

...and even add your own with 1 line!

```
163 |
164 void setupHardware
165 ESPARTO_HEADER(S
166 Esparto.graph("Rand",1000,10,0,[]){ return ran
167 Esparto.graph("NOTB",1000,10,0,[]){ return 666
168
```

heap & loops are the best indicator of mcu health. If they slope down you are in ~~star~~ trouble.

nifty "vbar" puts a colored stripe so you spot when things go bump in the night



# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "ESP" tab



### Title Pane

**The Beast**  
Esparto v3.3.0.2

"raw" state

"cooked" state

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

D3 D4 D2 D1 D6 D7 D5 D8 D0 AD

gpio number

### GPIO Pane

"arduino" digital number

### Tabs menu

Wi-Fi MQTT Settings GPIO (active) OTA Reboot Status Clock

18%

progress bar

ha! ha! because every single gpio socket has a plug in it!

15:33:12 Up:00:00:41:29 Views:1

Device	airtight
Board	Wemos D1 Mini
Topic	wemosd1mini
Chip	17D848
IP	192.168.1.104
Lwip	STABLE-2_1_2_RELEASE
Sdk	SDK 2.2.1(cfd48f3)
Core	Core 2.5.2=20502000
Flash	4194304
Flash Freq	40MHz
Flash Mode	DIO
Max SPIFFS	1048576
Max OTA	522232
Sketch	453504 (86%)
NBoot	2
Code	External System

### Status

MQTT OK NOT OK

ALEXA OK NOT OK

factory reset!



reboot



you can use OTA from the arduino IDE or upload stuff yourself

**Updates**

**SPIFFS**  
Choose file spiffs\_\_4M.bin  
"Update SPIFFS"

**Firmware**  
Choose file No file chosen  
"Update Firmware"

does pretty much what it says on the tin





# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "Tool" tab

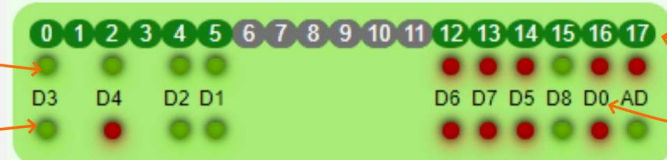


### Title Pane



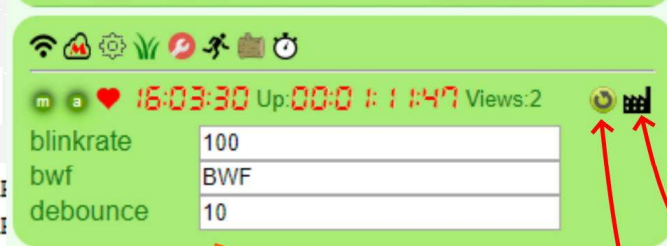
"raw" state

"cooked" state



### GPIO Pane

### Tabs menu



### Status



```
78 {CONFIG(ESPAI
79 {CONFIG(ESPAI
80 //
81 // Add your own configuration name/value pairs here:
82 //
83 {"blinkrate", "100"},
84 {"debounce", "10"},
85 {"bwf", "BWF"}
86 };
87 ESParto Esparto(cb);
88 #define PIR D0
89 #define ENC_A D1
```

you define these  
you can do what you want  
with them...

factory reset!



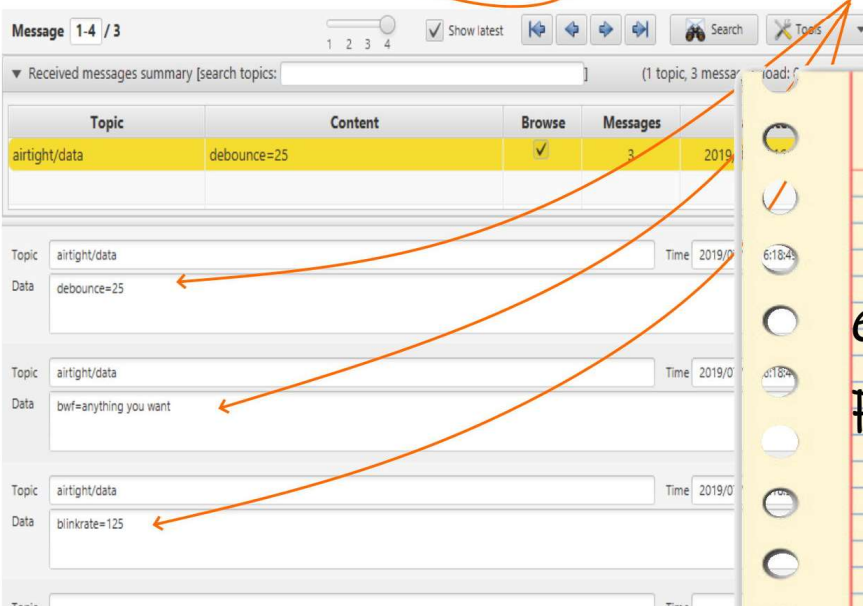
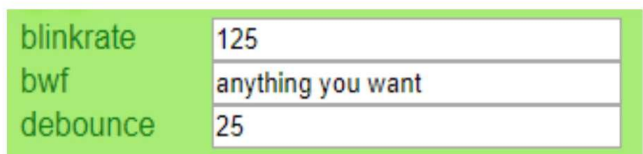
reboot



..if you click this:



the new values get sent to MQTT  
when they change



your code gets told  
if they change

even if some other  
process does it!



# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "Run" tab

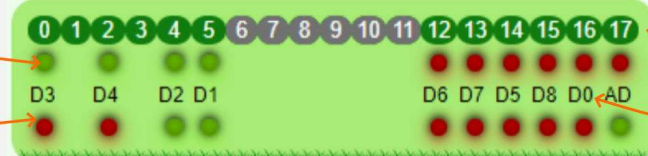


### Title Pane



"raw" state

"cooked" state

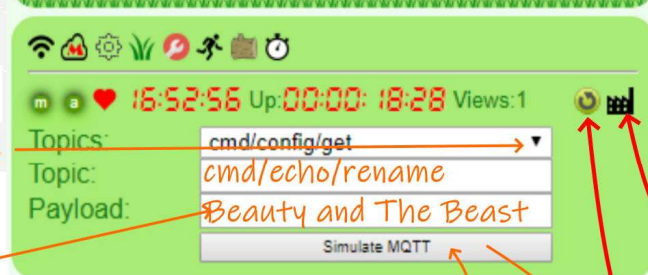


gpio number

### GPIO Pane

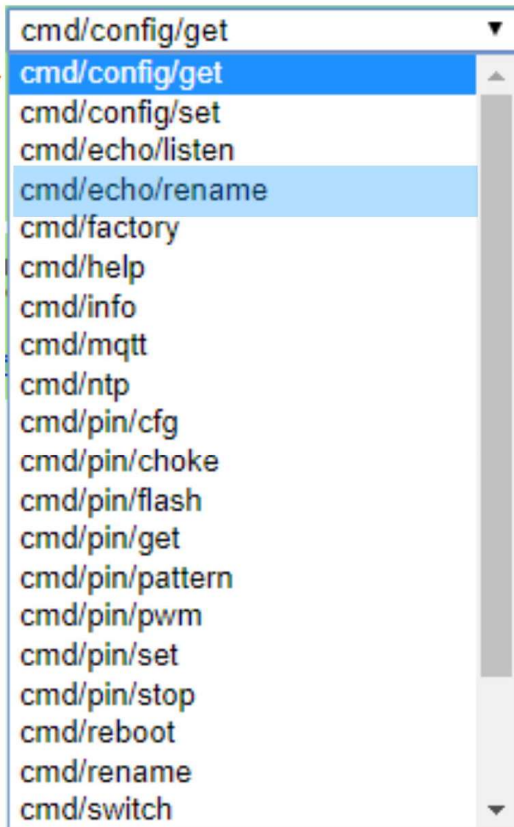
"arduino" digital number

### Tabs menu



1. drop down the list

2. enter other data e.g. payload... and hit the button



### Status

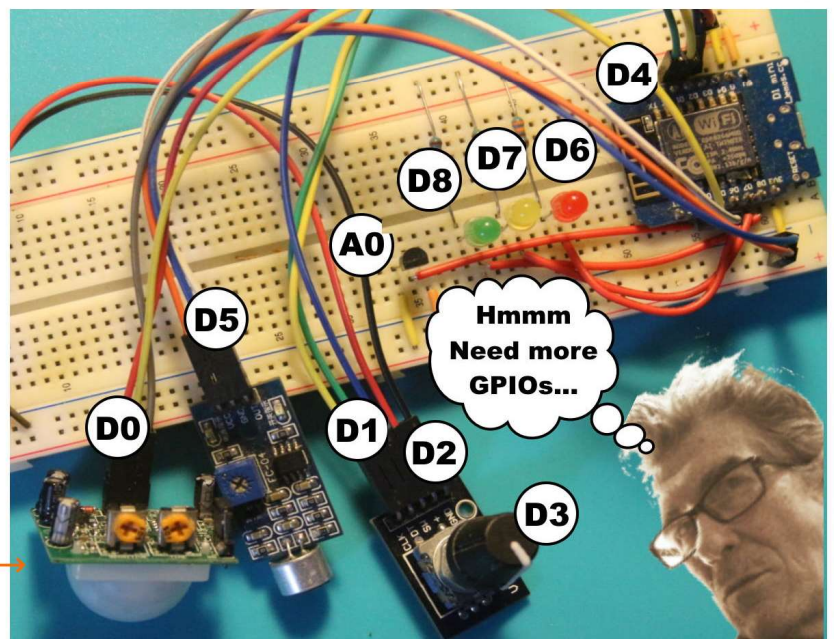


factory reset!



...et voila!

reboot



"the beast" - love the Arduino-color workmat!



# Esparto v3.3

# Web User Interface

You define what the on/off switch does

## The "Log" tab



### Title Pane



"raw" state

"cooked" state

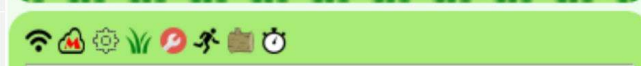


gpio number

### GPIO Pane

"arduino" digital number

### Tabs menu



### Status



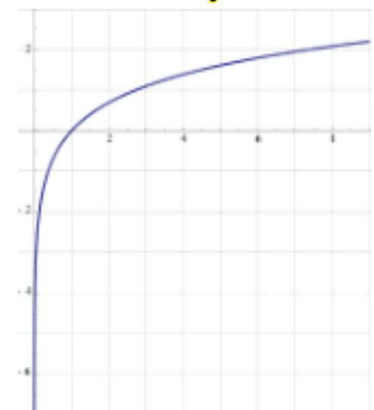
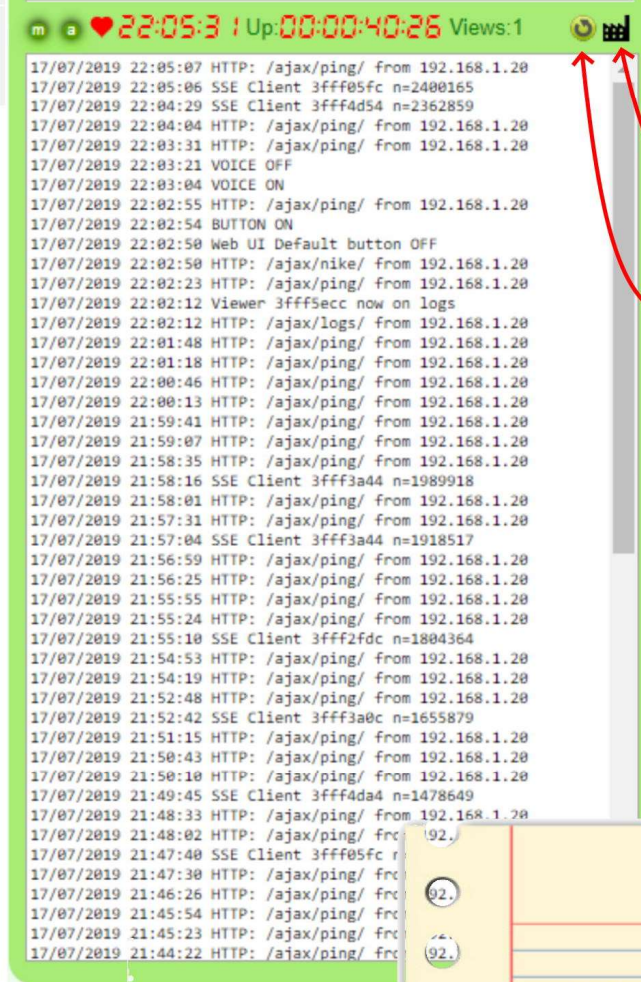
factory reset!



reboot



it's a log



er...it's a log

# Esparto v3.3

# Web User Interface

## The "RTC" tab



You define what the on/off switch does

### Title Pane



### The Beast

Esparto v3.3.1.15

"raw" state

"cooked" state

gpio number

### GPIO Pane

"arduino" digital number

### Tabs menu

whatever the switch does...

...will go on at 1pm

...and off again at 2pm

### Status

MQTT OK NOT OK  
ALEXA OK NOT OK

factory reset!



reboot



add alarm

cancel alarm

daily alarm



re-sync automatically with NTP server every 2 hours (configurable)

GMT offset can be -ve of course!



no 1/2hr or 45mins though yet, sorry



ran flag

and

