

I put my farm on the Internet



Now what?

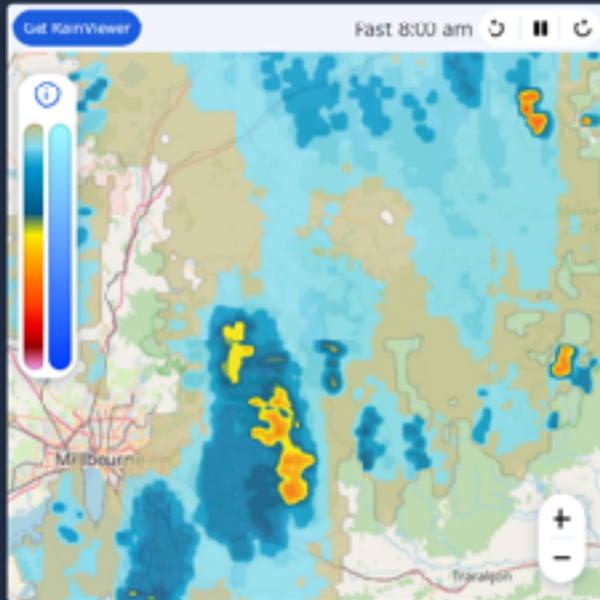




7.4 °C

NW 3490 km/h
1010 hPa
00:25:37

09:00 AM	10:00 AM	11:00 AM	12:00 PM	01:00 PM	02:00 PM	03:00 PM
7°C	7.4°C	6.9°C	6.6°C	6.2°C	5.9°C	5.7°C
0.8 mm	0.1 mm	0.2 mm	0.2 mm	0.4 mm	0.4 mm	0.2 mm
100 %	100 %	54 %	66 %	83 %	83 %	85 %



Outdoor Temperature 7.3 °C

Humidity 96%

Rain Rate 1.3 mm

Event Rain Rate 176 mm

Absolute Pressure 977.6 hPa

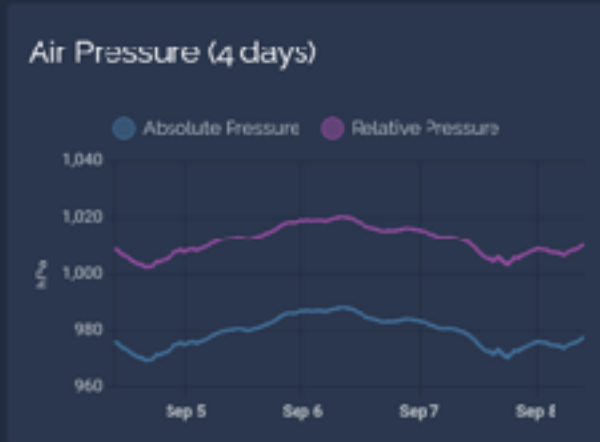
Wind Direction 338 °

Wind Gust 5.5 km/h

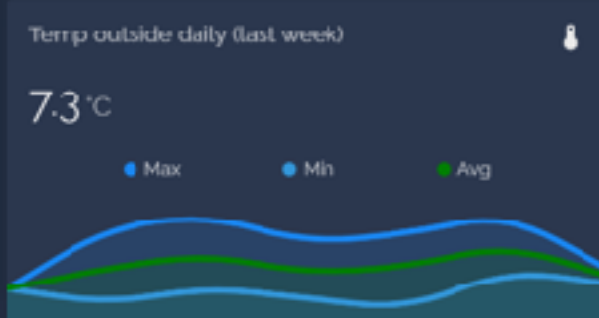
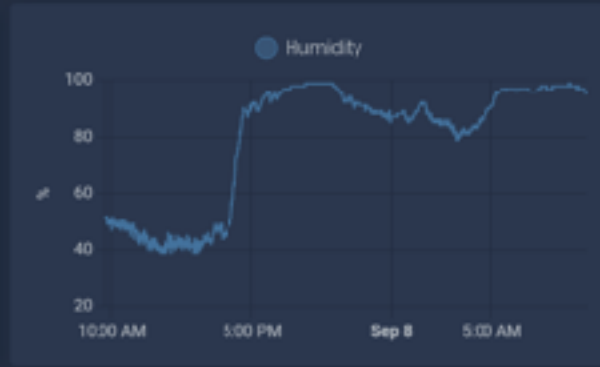
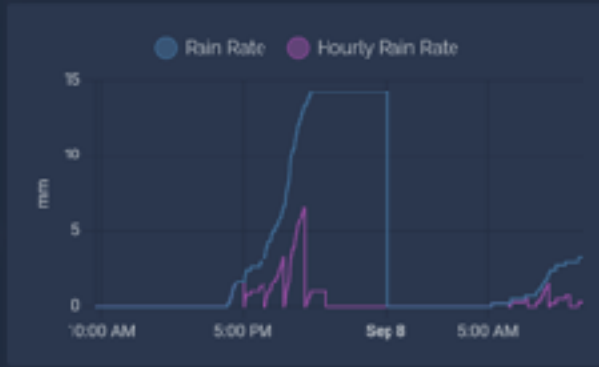
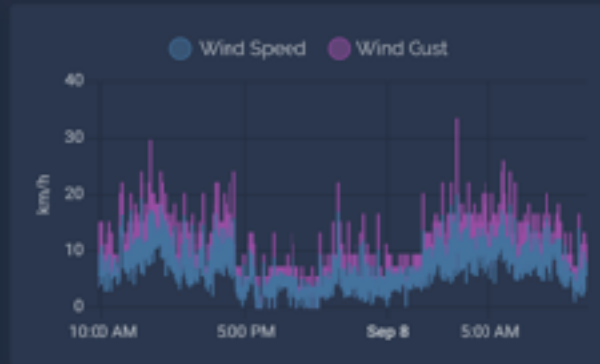
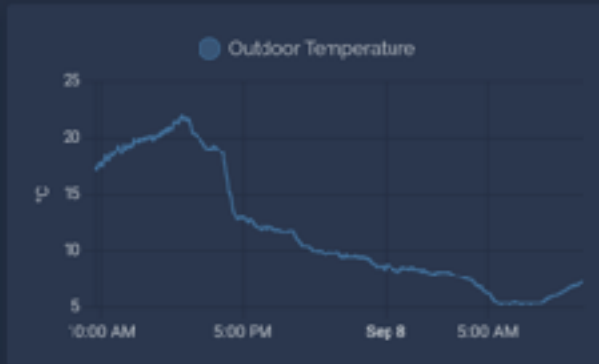
Wind Speed 5.5 km/h

Solar Radiation 90.16 W/m²

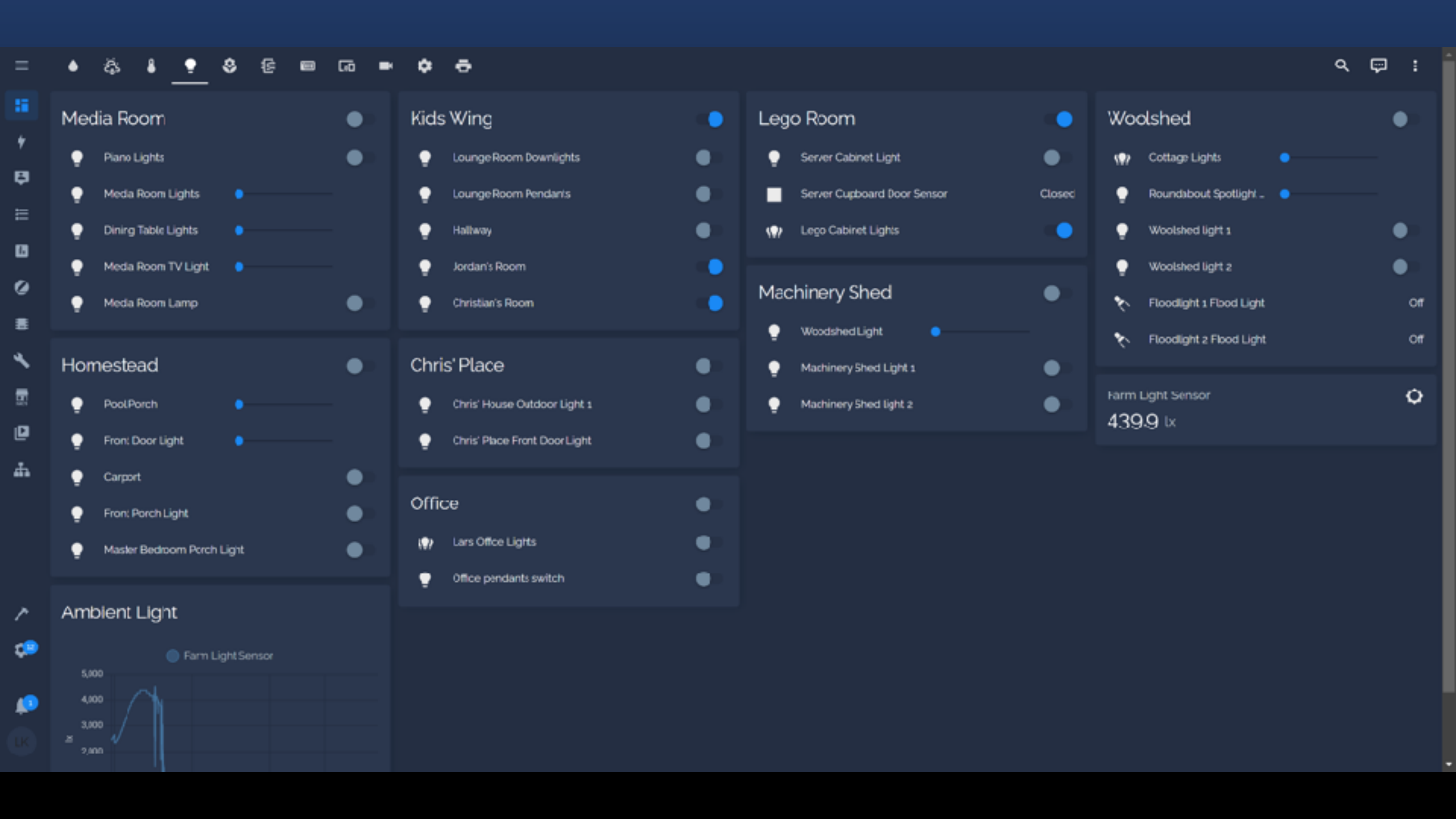
Solar Lux 11,412.7 lx



Solar Lux 11,412.7 lx







Media Room

- Piano Lights
- Media Room Lights
- Dining Table Lights
- Media Room TV Light
- Media Room Lamp

Homestead

- PoolPorch
- Front Door Light
- Carport
- Front Porch Light
- Master Bedroom Porch Light

Ambient Light



Kids Wing

- Lounge Room Downlights
- Lounge Room Pendants
- Hallway
- Jordan's Room
- Christian's Room

Chris' Place

- Chris' House Outdoor Light 1
- Chris' Place Front Door Light

Office

- Lars Office Lights
- Office pendants switch

Lego Room

- Server Cabinet Light
- Server Cupboard Door Sensor
- Lego Cabinet Lights

Machinery Shed

- Woodshed Light
- Machinery Shed Light 1
- Machinery Shed light 2

Woolshed

- Cottage Lights
- Roundabout Spotlight
- Woolshed light 1
- Woolshed light 2
- Floodlight 1 Flood Light
- Floodlight 2 Flood Light

Farm Light Sensor

439.9 lx



What does this have to do
with building better
products?



Lars Klint



LARS KLINT

(MOSTLY) SOBER TECH

Panta



Lars Klint | 🚚 🥑 🏠 🔒

@larsklint

...

What does a llama say?



8:00 AM · Sep 12, 2018



Shimon Das @shimonips · Oct 13, 2018

What do you call a laughing llama?

LLAMAO



Amy 🍷 🍷 🍷
@Amys_Kapers



1:13 PM · May 20, 2020 from Perth, Western Australia



colin.traverse_
@AbstractCode

Ice Llamas, steeds of the Ice Giants in the final battle to destroy humanity





The product reveals itself



Lars Klint | 🚚 🥑 🏠 🔒

@larsklint



Llama cam is live. @ubnt

2020-07-04 07:15:43

Pump Shed



5:32 AM · Jul 4, 2020



llamacam.com.au

Follow The Llama Drama

[Llama Cam](#)

[About](#)

[Support Llamas](#)

Llamacam going live in...

14 09 54

Hours

Minutes

Seconds

2023-09-28 18:00:00



llamacam.com.au

Follow The Llama Drama



Product Constraints

1. 100 GB of Internet data per month.




























Total.



















2. No self hosting the stream.

3. No budget.

4. Minimise maintenance.

The product matures and
improvements are needed

22 devices				
Type ^	Name v	Status v	Model v	
	Merlewood UDM SE	Online	UDM-SE	
	Chris' Place Switch	Online	US-8-150W	
	Lounge Room Switch	Online	USW-Industrial	
	Machinery Shed Switch	Online	USW-Flex	
	Office 48-Port Switch	Online	USW-48-PoE	
	Primary 24-Port Switch	Online	USW-24-PoE	
	Pump Shed Switch	Online	USW-Flex	
	Bedroom	Online	UAP-nanoHD	
	Broadcast	Online	UAF-AC-M	
	Carport	Online	UAP-AC-M-Pro	
	Chris' Place	Online	U6-LR 	
	Chris' Place Outside	Online	UAF-AC-M	
	Gate	Online	UAF-AC-M	
	Guest Cottage	Online	UAP-nanoHD	
	Jordan's Room	Online	UAP-nanoHD	
	Kitchen	Online	U6-Enterprise 	
	Lego Room	Online	UAF-AC-LR	
	Lounge Room	Online	UAP-IW-HD	
	Media Room	Online	U6-LR 	
	Office	Online	U6-Pro 	
	Pump Shed	Online	UAF-FlexHD	
	Woolshed	Online	U6-Mesh 	

18 devices				
Type ^	Name v	Status v	Model v	
	Carport	Online	UVC G3 Flex	
	Carport 2	Online	UVC G4 Dome	
	Chris front Dcor	Online	UVC G3 Flex	
	Driveway	Online	UVC G4 Bullet	
	Floodlight 1	Online	UFP-SFL	
	Floodlight 2	Online	UFP-SFL	
	Front Garden	Online	UVC G3 Flex	
	Front Porch	Online	UVC G3 Flex	
	Gate	Online	UVC	
	Gate Intercom	Online	UVC G4 Doorbell	
	Llama Cam 1	Online	UVC G3 Flex	
	Llama Cam 2	Online	UVC G3 Flex	
	Llama Cam 3	Online	UVC G3 Flex	
	Llama Cam 4	Online	UVC G4 Bullet	
	Machinery Shed	Online	UVC G5 Bullet	
	Merlewood-UNVR	Online	UNVR	
	Office	Online	UVC G5 Pro	
	Pool	Online	UVC G4 Pro	

VLANs



Firewalls

SSIDs

Measuring Water Tank Levels with Home Assistant

Llama

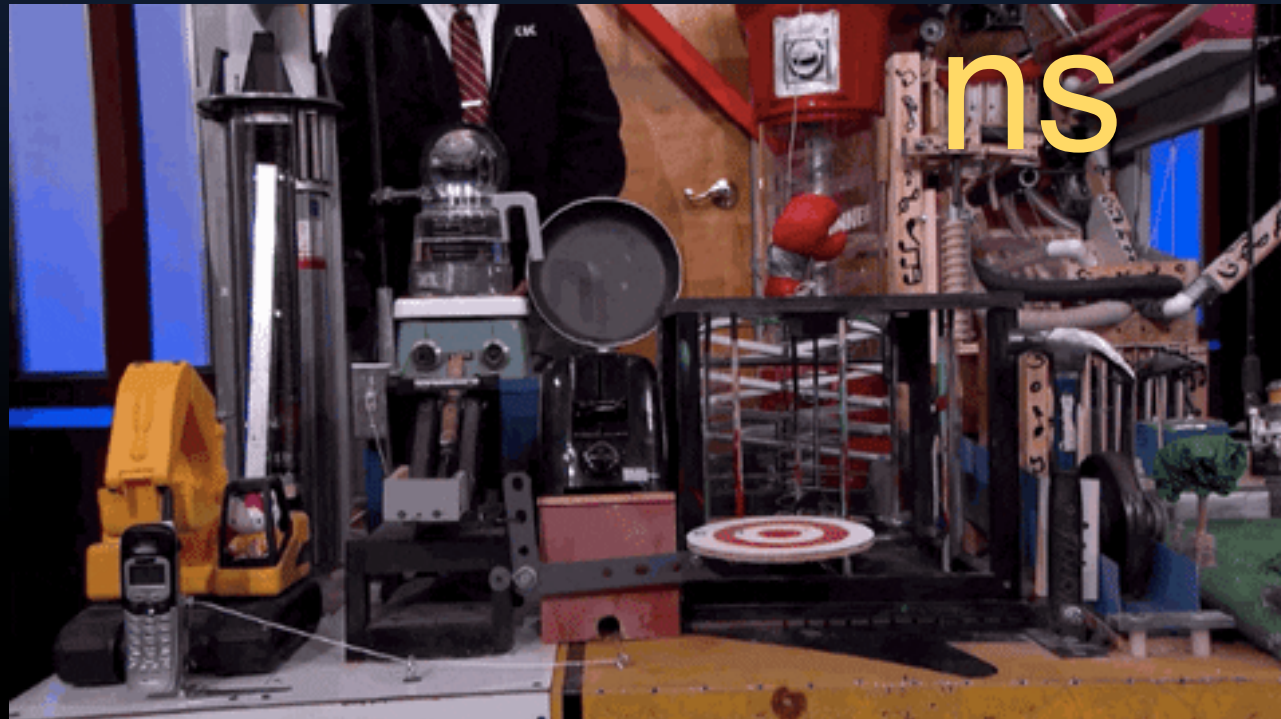


```

... house_tank_litres_shelly:~
...   value_template: >~
...     {% set voltage = states('sensor.house_water_tank_level_median_voltage') | float %}~
...     {{ ((voltage / 2.7) * 45804) | round(0) }}~
...   unit_of_measurement: l~
...   friendly_name: House Tank Litres~
... chris_tank_volume:~
...   value_template: >~
...     {% set radius = 1.75 %}~
...     {% set height = 2.5 %}~
...     {{ ((3.14159265359 * radius ** 2 * height) * 1000) | round(0) }}~
...   unit_of_measurement: l~
...   friendly_name: Chris' Tank Volume~
... woolshed_tank_volume:~
...   value_template: >~
...     {% set radius = 2.4 %}~
...     {% set height = 2.3 %}~
...     {{ ((3.14159265359 * radius ** 2 * height) * 1000) | round(0) }}~
...   unit_of_measurement: l~
...   friendly_name: Woolshed Tank Volume~
- platform: statistics~
- name: "House water tank level median voltage"~
- entity_id: sensor.shelly_uni_house_tank_adc~
- state_characteristic: median~
- max_age:~
-   hours: 2~
- precision: 4~
- platform: statistics~
- name: "Woolshed water tank level median voltage"~
- entity_id: sensor.shelly_uni_woolshed_tank_adc~
- state_characteristic: median~
- max_age:~
-   hours: 2~
- precision: 4~

```


Let us look at products
Automation















What defines a successful
ROI?

Automation Criteria

1. Parent test
2. Offline capabilities
3. Save time or save money

Community

 <p>SwitchBot Curtain 3 - Is it really that quiet? 2.2K views · 3 days ago</p>	 <p>Unifi G5 Bullet - Is it better than G4 Bullet? 8K views · 11 days ago</p>	 <p>Unifi Switch Flex - The outdoor Unifi switch 12K views · 3 weeks ago</p>	 <p>Unifi G5 Pro - Is it better than the G4 Pro? 9.6K views · 1 month ago</p>
 <p>Unifi Switch 48 PoE - Fixing my power issues 2.9K views · 1 month ago</p>	 <p>airMAX Gigabeam Plus - 1.5 Gbit wireless connection 34K views · 1 month ago</p>	 <p>Zosil PTZ camera - Is it worth it? 1.6K views · 1 month ago</p>	 <p>Bulbie Ryee WiFi - The range is insane! 4.9K views · 2 months ago</p>
 <p>Home Assistant automated backups - using Synology NAS 1.5K views · 2 months ago</p>	 <p>My farm water infrastructure automation - complete walkthrough 1.8K views · 2 months ago</p>	 <p>BestJoy Super Remote - A remote for Home Assistant using MQTT 1.3K views · 3 months ago</p>	 <p>Wall mounted Home Assistant dashboard - Using Lenovo Tab P11 6.7K views · 3 months ago</p>

Hi Lars. Probably the most anticipated YouTube video ever on my part haha.... Thanks for the video and opening another can of worms for me... 😊 I have the Shelly uni's ready to go (in fact it looks like I can use just the one to do two of my tanks). The pressure sensor looks solid so Aliexpress, here I come. Cheers.

Hi Lars, Great video, and I just got the components, and the voltage dat is flowing into HA.
But I just can't get my configuration.yaml to work with the statistics and Template sensor for converting to litre. .
So I assume it would help me a lot, if I could get a copy of your files as examples. ...

Great video. A test of you walking in view of the cameras would be helpful to see how much detail they can pull out of a person as well as how they handle motion, especially at night.

When you do your night comparison, be sure to compare each camera one at a time using only the infra red from each camera, otherwise you're reviewing it with light coming from all three cameras at the same time.

Hope this makes sense! Otherwise good comparison :)...

Very good Lars, but how
does this relate to
development?

Listen



Lars Klint | 🚚🥑🏠🔒
@larsklint

Llama cam is live. @ubnt

2020-07-04 07:15:43
Pump Shed



5:32 AM · Jul 4, 2020

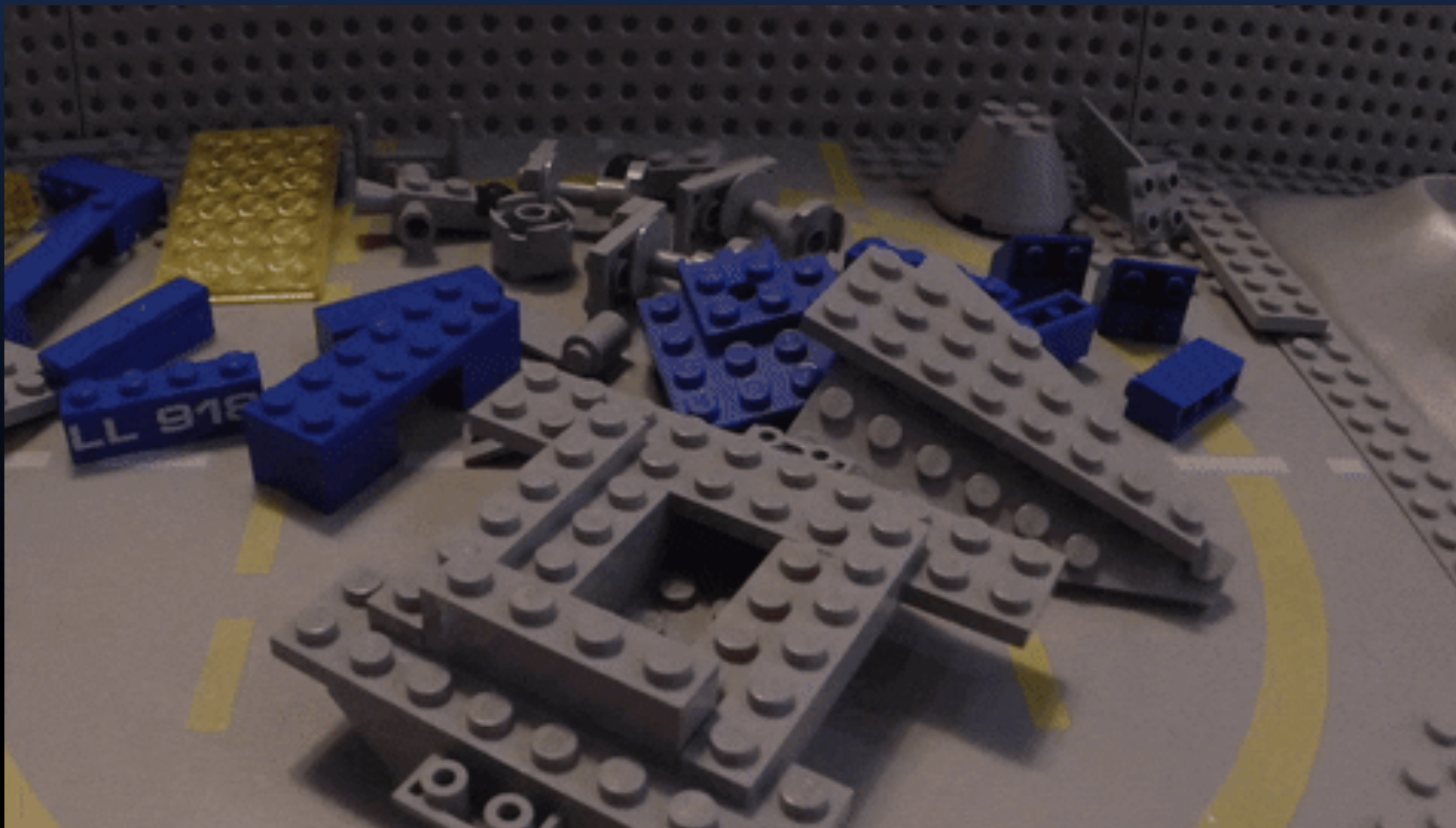


Daria Zh
Adorable



down under 🦏🦏

Build it



Refine Reiterate Reuse



Value



SwitchBot Curtain 3 - Is it really that quiet?

22K views · 3 days ago



Unifi G5 Bulet - Is it better than G4 Bullet?

8K views · 11 days ago



Unifi Switch Flex - The outdoor Unifi switch

12K views · 3 weeks ago



Unifi G5 Pro - Is it better than the G4 Pro?

9.6K views · 1 month ago



Unifi Switch 48 PoE - Fixing my power issues

2.9K views · 1 month ago



airMAX Gigabeam Plus - 1.5Gbit wireless connection

34K views · 1 month ago



Zosil PTZ camera - Is it worth it?

1.6K views · 1 month ago



Buljle Ryee Wifi - The range is insane!

4.9K views · 2 months ago



Home Assistant automated backups - using Synology NAS

1.5K views · 2 months ago



My farm water infrastructure automation - complete walkthrough

1.8K views · 2 months ago



BestJoy Super Remote - A remote for Home Assistant using MQTT

1.3K views · 3 months ago



Wall mounted Home Assistant dashboard - Using Lenovo Tab P11

6.7K views · 3 months ago

Community



Take Aways



An aerial photograph of a rural farmstead. In the center, there is a cluster of buildings including a large white house, a dark barn with a corrugated metal roof, and several smaller outbuildings. The farm is surrounded by lush green fields and numerous trees. To the left, a red and white structure is visible. In the lower right, a green tractor is working in a field. A small pond is located near the center-left. The text 'Thank You' is overlaid in a large, bold, yellow font across the middle of the image.

Thank
You