

OurWeather Installing the Blynk App

> December 2018 Version 1.2



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What is OurWeather?



<u>OurWeather</u> is an ESP8266 based connected weather station containing 7 different sensors that will teach about electronics, software and the weather. It contains all the sensors and wires to make a fully functional, WiFi weather station. No software programming is required, it works right out of the box. However, if you want to change the way OurWeather works, add your own software or do something entirely different, we have the Open Source software available. And what is one of the coolest features of OurWeather? **Building the kit requires NO SOLDERING. It uses Grove Connectors.** It is all plug and play based building, with a full step-by-step photograph based instruction manual. It is a safe and educational way to learn about weather, electronics and science topics. You can watch our successful kickstarter video here: https://youtu.be/pw6hSNSQnsM







Installing the Blynk OurWeather App

What is Blynk

Blynk is a digital dashboard for your iOS or Android device that allows you to easily build graphical interfaces by dragging and dropping widgets. Blynk runs on iOS and Android apps to control Arduino, Raspberry Pi and the likes over the Internet.

It's a digital dashboard where you can build a graphic interface for your project by simply dragging and dropping widgets.



Step by Step Install (for iPhones – Android is very similar)

Step 1) Install the Blynk app on your mobile phone

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Q blynk		\otimes	Cancel



Blynk - IoT for Arduino, ES...

ESP8266, Raspberry Pi, Node...





Step 2) Open the Blynk app and create an account



Step 3) Now click the button to scan a QR (see arrow)



4) Scan the QR Below (this is OurWeather V002), you will then see the screen below the QR code



OurWeather V002



Step 5) Add Energy. OurWeather V002 requires a total of 7700 Blynk energy. You start your account with 2000, so you need to purchase 5700 Blynk Energy. As of this writing, it will cost \$5.99. It varies.

📲 AT&T Wi-Fi 🤝	>	11:31		⊕ 45%) , /
×	Energ	gy Sto	re		
YOUR ENERGY E	3400				
Choose	Energy	Раск			
x 2	1,000		\$0.99	Buy	
 × 2	2,400		\$1.99	Buy	
	5,000		\$2.99	Buy	
— @ × ′	13,000		\$5.99	Buy	
(x a	28,000		\$7.99	Buy	

Step 6) Scan the QR code above again. You will now see the OurWeather on your screen. You can always check the version by at the title (as of V002, the version is included after "OurWeather" in the header below).

••• AT&T Wi-Fi	? 20):04	● 97% ● ∮
(←)	OurWeat	ther V002	
 → OUT TEMP 73 0.39 725 0.388 1 72 1.386 71.5 20.384 05 71 30.382 70.5 30.38 	 A BARO PRESSURE 29.5 29 28.5 28 27.5 		A OUT HUMID
Live <u>1h</u>	6h 1d 2d	1w 1M	••• 🔼
CURRENT OUTSIDE	TEMPERATURE	CURRENT OUTSIDE HU	JMIDITY
70.3F		29.80%	
WIND DIRECTION	WIND SPEED	TOTAL RAIN	
45/NE	0.0mph	0.00in	
BARO PRESSURE	B TREND	AIR QUALITY	
30.39in		Fresh Air	
INSIDE TEMP		LGHTN SOLAR BAT	
79.3F		88.5	9%
STATUS			
OurWeat	her Versior	n V035 Starl	ted
OVERVIEW	/ ST/	ATUS	SOLAR

Step 7) Click in middle of the project to select the project. Then click the indicated button to go to project settings. Note: You can always see the App Version number of the project setting (V003). Now copy and paste or email yourself the authentication token (AUTH TOKEN) as we will be putting this in the OurWeather Admin Page in the next section. The one below WILL NOT WORK. You need your own.

📲 AT&T Wi-Fi	२ 15:	:08	80%	III AT&T	Wi-Fi 🗢	15:1	10	81%
(←)	OurWeat	her V002	\odot \triangleright		F	Project S	Settings	ОК
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180/S	0.0mph	0.00in	49.8⊢			How it v	works	
BARO PRESSURE 30.62in INSIDE TEMP V21 81.0F		AIR QUALITY Fresh Ai LGHTN SOLAR BA 83.6	v7 TTERY V57		OurW ESP8266	Veather		>
STATUS			V31	AUTH TOK				
OurWeath	ner Version	V035 Star	ted		7de5509	9ff6c14e728	89ff0ad2ada2	24e8
OVERVIEW	STA	TUS	SOLAR		Refre	sh	E-M	ail

You have completed the Blynk OurWeather App installation.

Installing the Blynk Authentication Codes into OurWeather

The final step to connecting the OurWeather Software and Hardwar to the OurWeather App is to copy your Authentication Token (AUTH TOKEN above) to the OurWeatherAdmin page. NOTE: OurWeather needs to be running at least V035 of the OurWeather Software. For instructions on how to update, go to the OurWeather Page (<u>https://shop.switchdoc.com/products/ourweather-complete-weather-kit</u>) and download the Assembly and Operations Manual.

Step 1) Using a browser, go to http://www.switchdoc.com/OurWeatherAdmin.html

OUR	IER				
OurWeather Admir	Functions V3.7				
192.168.1.246	Set OurWeather IP Address	s OurWeather (example: 192.168.1.115)			
Old Password	New Password	Set Admin Password			
Admin Password	WeatherUnderground Stati	Set WeatherUnderground Station ID			
Admin Password	WeatherUnderground Stati	Set WeatherUnderground Station Key			
Admin Password	Set OurWeather to Default	5			
Admin Password	Reset WiFi Access Point				
Admin Password	Mmm dd yyyy	(example: Jan 07 2016) hhummuss (example: 13:14:33) Set Date Time			
Check For Latest OurW	eather Version				
Admin Password	Update OurWeather Softw	are			
OurWeather Alexa	Admin Functions V3.7				
Admin Password	pub-c-xxxxx	Sub-e-xxxxx Enable Alexa			
Admin Password	Disable Alexa				
Our/Weather Blynk Admin Functions V3.7					
admin Zdsh55Q8ff8c14e22888ff0k Set Blynk Authorization Code					
OurWeather Thunc	erBoard Lightning Deter	ctor Admin Functions V3.7			
Fetch Current Thunder	loard Parameters				
Admin Password Admin Password					
7	Tuning Capacitor 0-15	5 (default 7)			
3 3	Watchdog Threshold Spike Rejection 0-15	0-15 (default 3) (default 3)			
	ndoor (default indoor)	Detection (default no disturber detection)			
No Disturber Detection or Disturber Detection (detault No disturber detection)					

Step 2) Make sure you have the OurWeather IP Number in the top of the page. Check the OurWeather Assembly and Operations manual for details of how to do this. To Download, go to the OurWeather Page (https://shop.switchdoc.com/products/ourweather-complete-weather-kit) and download the Assembly and Operations Manual.

12 Page Version 1.2 December 2018 Step 3) Put in your Blynk Authentication Code into the field on the OurWeatherAdmin page as shown above. Your code will look something like "7de5509ff6c14e72889ff0ad2ada24e8":. This code WILL NOT WORK. You need your own. Click the button Set Blynk Authorization code. Make sure you have your Admin password.

Using the Blynk OurWeather App

We will now go through a screen by screen discussion of the OurWeather App. This discussion is for SDL OurWeather V002. Once you have started the app in Blynk (by hitting the start button in the top right most corner of the app), you will start to see data after about 30 seconds.

Main Screen



Chart – Displays Outside Temperature, Outside Humidity, Air Quality and Barometric Pressure. As you get more data you will be able to see more and more data on the screen. The button on the right bottom of the chart switches to landscape mode to see even more data.

If you don't have the Air Quality extender, it will read zero. If you don't have the ThunderBoard Lightning Detector, you won't see any events from the ThunderBoard.

Status Screen

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(←)	OurWea	ather VC)02	•	
UNITS					
Fnalish					
Ligueir					
LAST SAMPLE					
2018-12-0	07 17:50:	24			
STATUS LOG					
2018-12-07	17:47:12:	OurWeather	r Vers	ion V03	3 5
Started 2018-12-07	17:47:12:	SunAirPlus	s Pres	ent	
2018-12-07 2018-12-07	17:47:12: 17:47:12:	WXLink Not Air Qualit	t Pres ty Sen	ent sor	
Present 2018-12-07	17:47:12:	BMP280 Pre	esent		
2018-12-07 2018-12-07	17:47:12: 17:47:12:	AM2315 Pre AS3935 Thu	esent underB	oard No	ot
Present 2018-12-07	17:47:12:	Units set	to En	glish	
OVERVIEW		STATUS		SOL AR	
OVERVIEW				JOLAN	

This screen shows the Status for the OurWeather system. These are:

UNITS – Shows what Units (Metric or English)

LAST SAMPLE – Shows the time of the last weather data sample (in whatever timezone you have set your Raspberry Pi)

The terminal window at the bottom shows a running report of what the OurWeather system is currently doing. This is where you will see any lightning or noise events for the ThunderBoard Lightning Detector system.

Upon startup, OurWeather checks for what devices it finds and lists them on the Status Log.

Solar Screen

uli at&t 🗢	14:07	€ 63%
(←)	OurWeather V00	2 📑 🗆
Solar Data solar volt 5 6 6 6 6 6 6 6 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	A SOLAR CUR A BATTERY VOLT	BATTERY CUR
Live <u>1h</u>	6h 1d 1w 1M 3M	••• [2
1.18V	0.0mA	
BATTERY VOLTAGE	BATTERY CURRENT 276.8 85	5.53%
LOAD VOLTAGE	192.8	
BATTERY POWER	SOLAR POWER LOAD POWER	
1.11W	0.00W 0.99W	
OVERVIEW	STATUS	SOLAR

This screen shows you the current status of the optional solar power system connected to OurWeather. Voltage displays are in Volts, while all the current screens are in milliamps (mA). The Battery Gauge is an estimate of the total available charge (not the total charge of the LiPo battery), but the

The Battery Gauge is an estimate of the total available charge (not the total charge of the LiPo battery), but the charge available to the OurWeather system.

This screen really lets you see the solar power system in action.

Support

As with all SwitchDoc Labs products, technical support is given through the forums on <u>forum.switchdoc.com</u> If you have issues that can be solved by our fabulous customer service department, please go to <u>www.switchdoc.com</u> and send your issues through our Contact page on the top menu.

Disclaimer

SwitchDoc Labs, LLC takes no responsibility for any physical injuries and possession loss caused by those reasons which are not related to product quality, such as operating without following the operating manual and cautions, natural disasters or force majeure.

SwitchDoc Labs, LLC has compiled and published this manual which covers the latest product description and specification. The contents of this manual are subject to change without notice.