



xDrip4iOS

User guide

Dexcom® G4 needs xBridge **Wixel**, G5, G6 only 80 and 81 series 

FreeStyle **Libre** 

With Blucon / Miaomiao 1 and 2 / Bubble / Watlaa / Droplet / GNSentry

FreeStyle **Libre 2** 

With Miaomiao 1 and 2 / Bubble

FreeStyle **Libre 14 day** 

Ver 4.2.12 release 8/7/2020

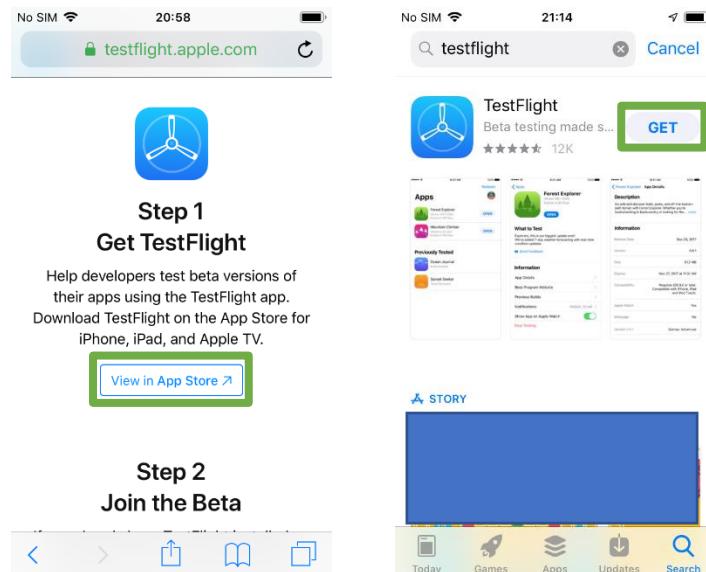
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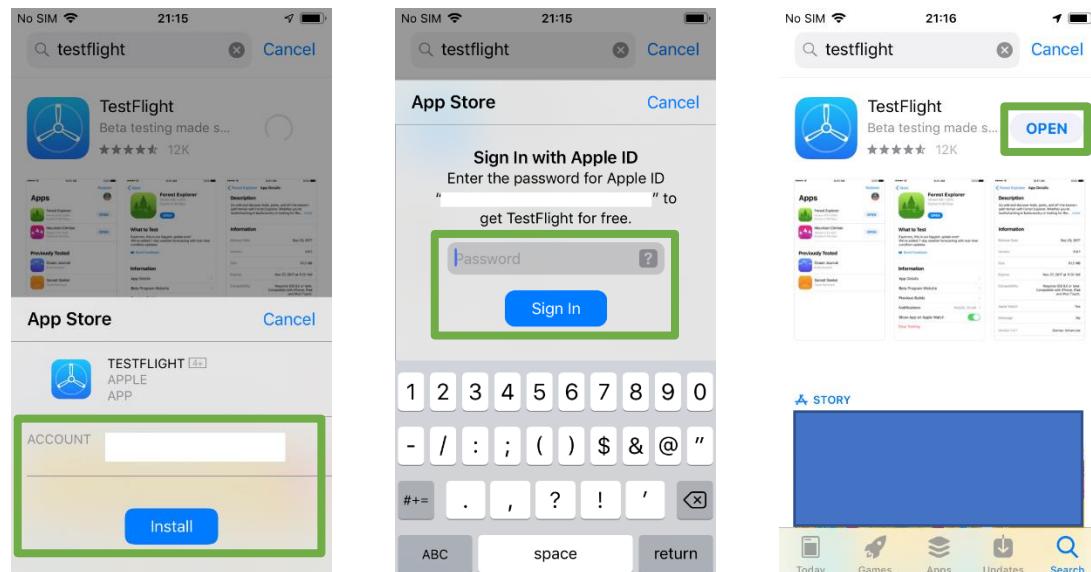
1. Install with TestFlight

Using the phone on which you want to install xDrip4iOS, touch this invitation link, <https://testflight.apple.com/join/6ZqKUGpm>

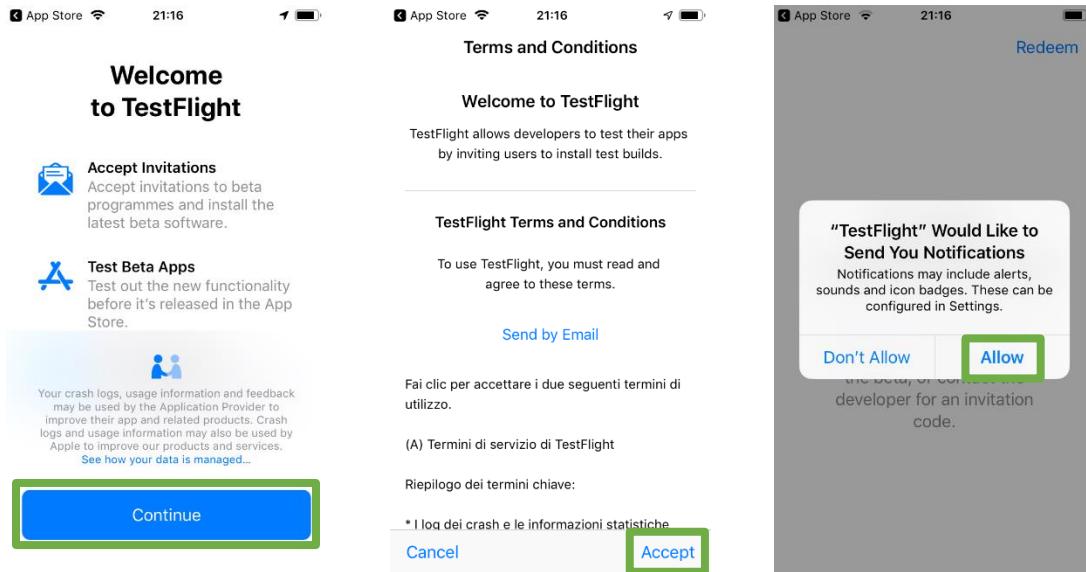
In Step 1 Get TestFlight, touch **View in App Store** and proceed to install TestFlight.



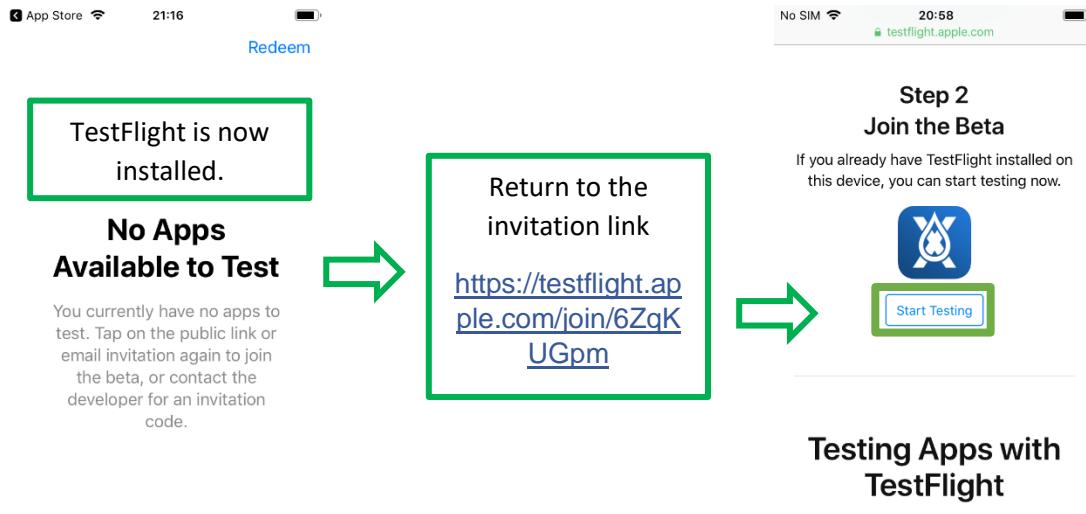
Sign In if necessary. Open the app to finish setup.



Touch continue, accept the terms and conditions, Allow notifications.

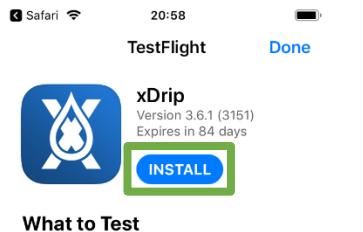


Go back to the invitation link and scroll down to Step 2 Join the beta. Touch **Start Testing**



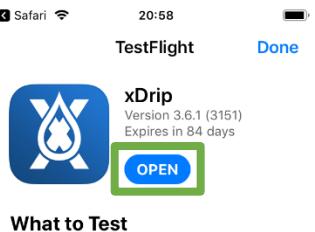
Note: If you need to setup xDrip for a child under 13, you must change the phone account to an adult (i.e. your own) in order to start testing. Once installed, return to the child account.

If you want to install the [latest version](#) touch Install then open xDrip.



What to Test

If you have problems with Dexcom G5, then please reinstall a previous build : go to TestFlight, click on [more](#)



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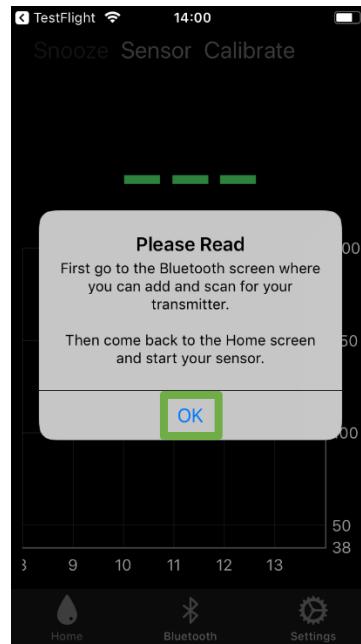
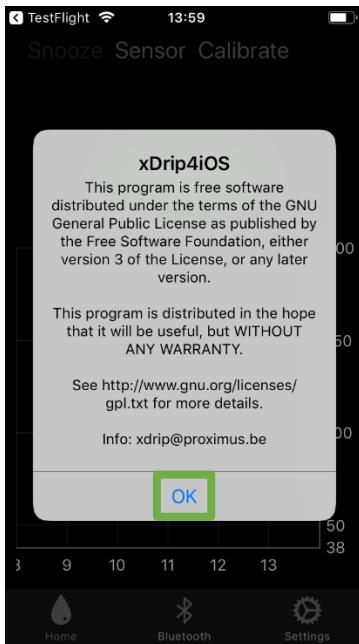
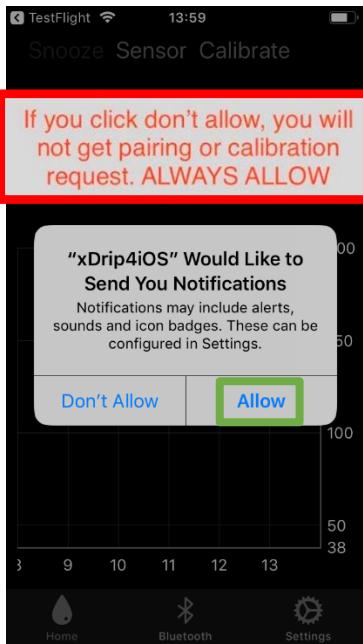
Terms of Service

When you use xDrip, your crash logs, usage information and feedback will be sent to Apple and Johan De [more](#)

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Allow notifications, accept the license and read the info, touch Ok

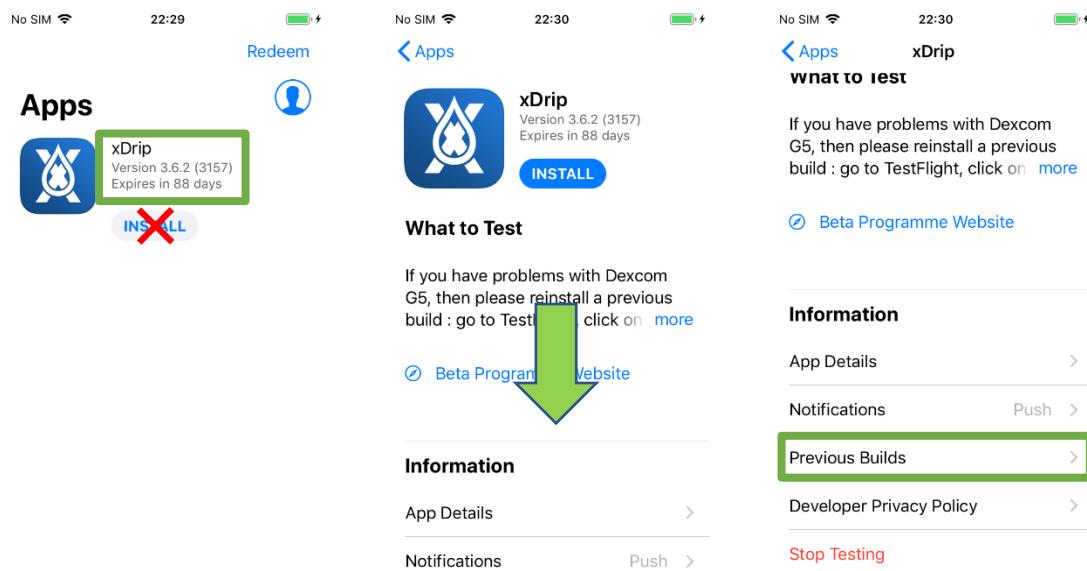


You have completed xDrip installation.

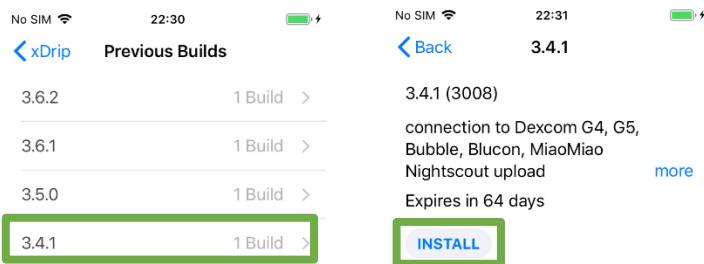
a. Downgrade

In some cases, you might want to install an older version of xDrip.

Open TestFlight. Touch xDrip (not INSTALL) and scroll down the next screen in Apps down to Previous builds.



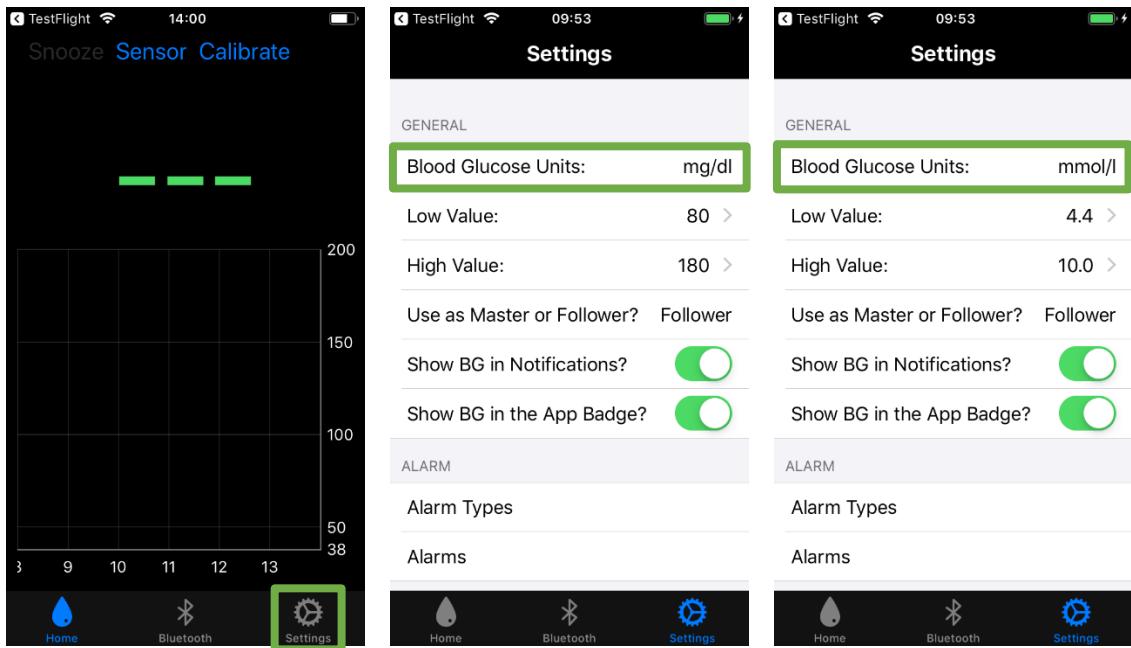
You can then select the version you want to install. For example, 3.4.1...



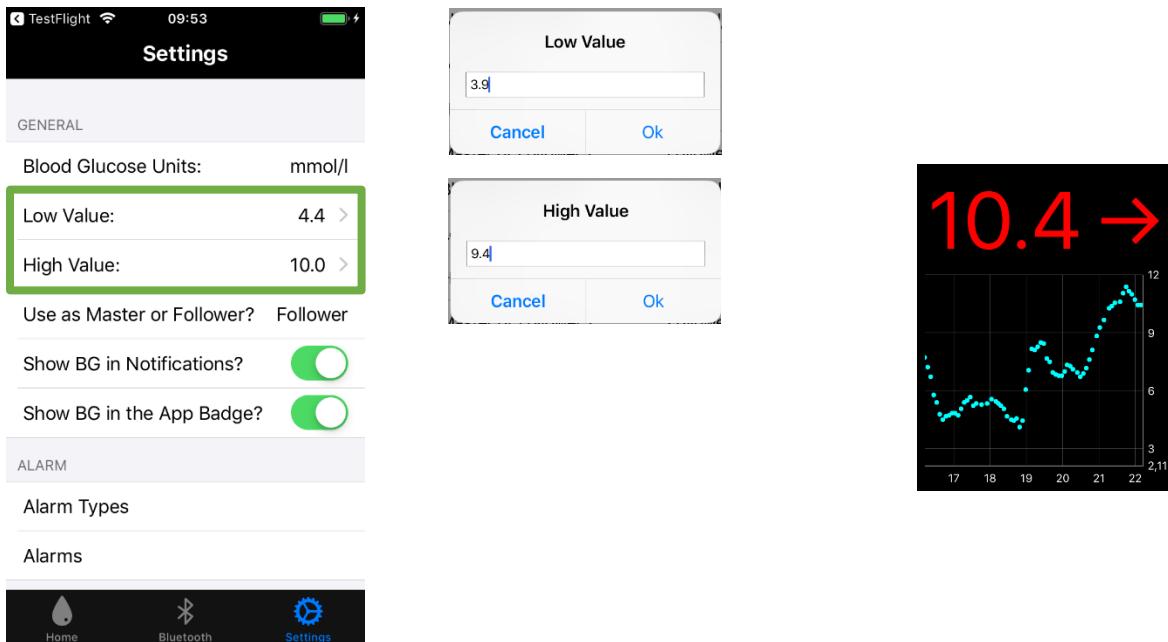
Restart your phone if necessary.

2. Settings

Touch the gear icon, select your BG unit: mg/dL or mmol/l



Set up your low and high values preferences, when out of range the BG numbers will show with a different color to show if you are in or out of your selected range

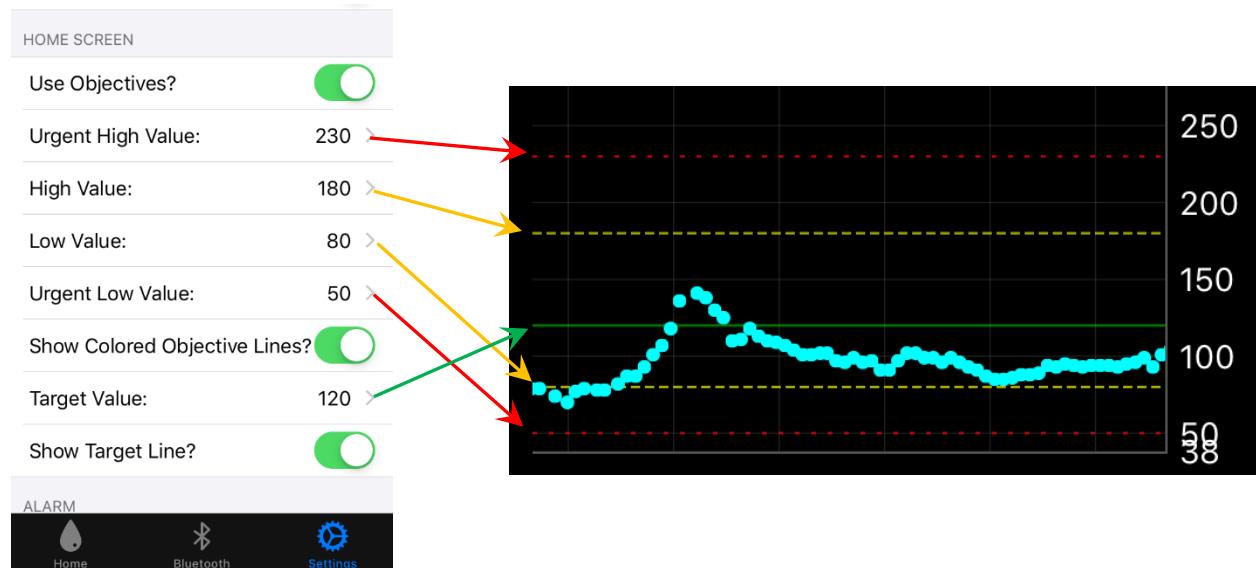


A crossed BG value means it's not current. Check above to understand if it's due to data source signal loss (minutes passed since last reading) or it shows the date corresponding to the value (browsing in the past).

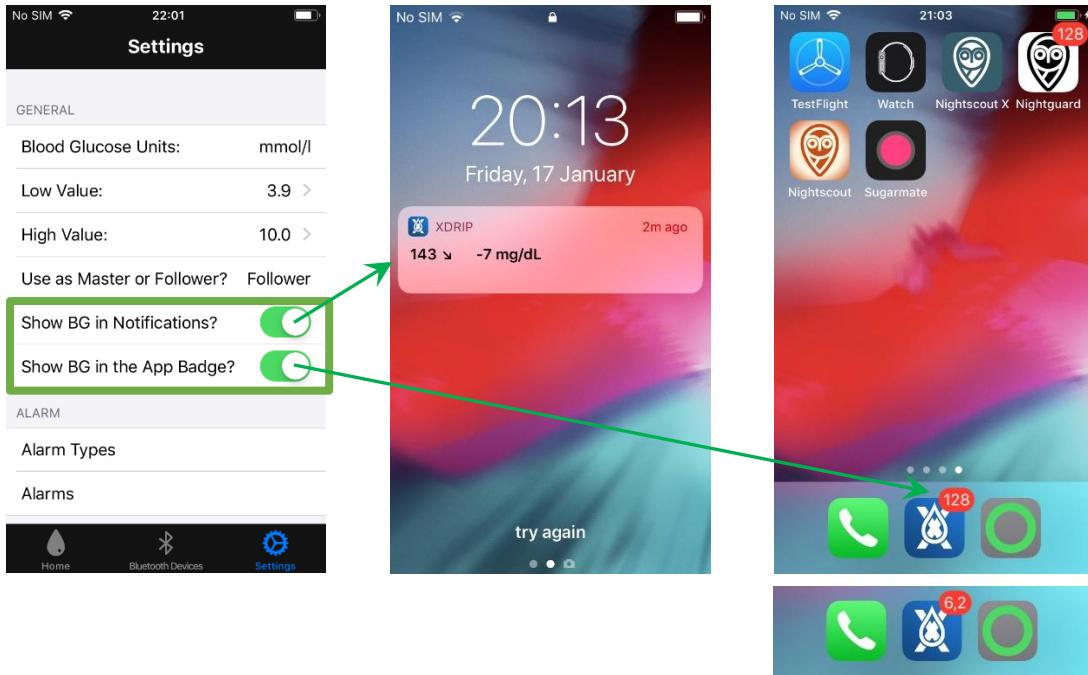


You can setup objective lines on your display

This feature is enabled by switching on Use Objectives.

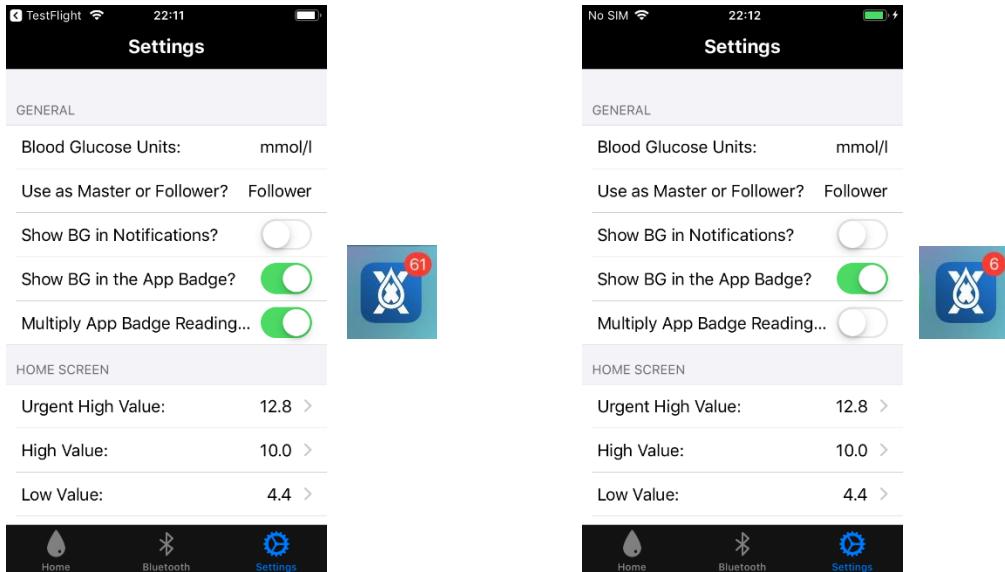


You can enable BG values on your home screen or in the app badge.



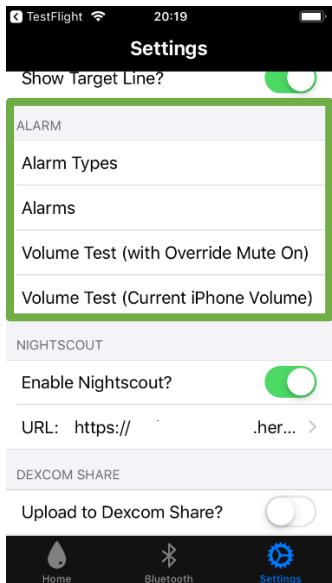
Note:

When using mmol/l the App Badge will display decimals only if Show BG in Notifications is enabled. If you disable Notifications you can use multiply by 10 to show the full value.

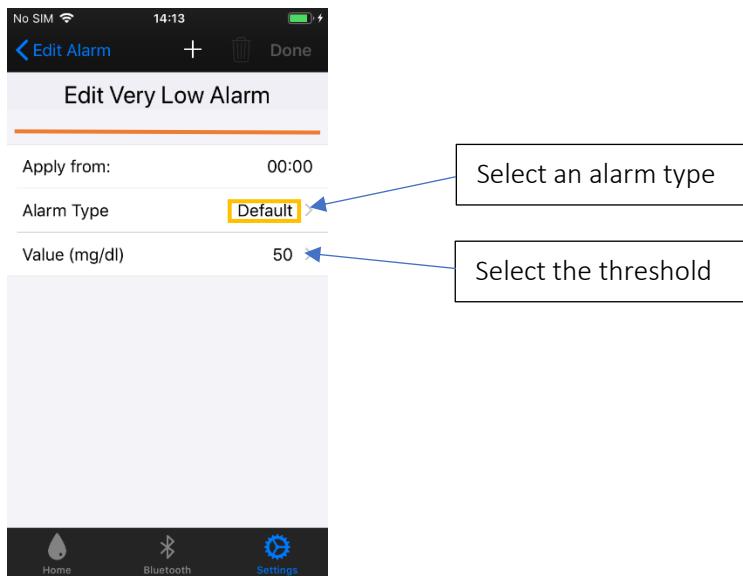
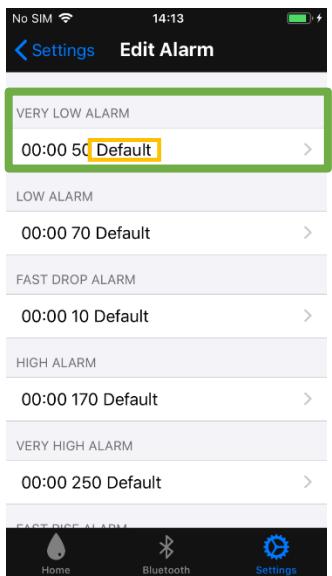


a. Alarms

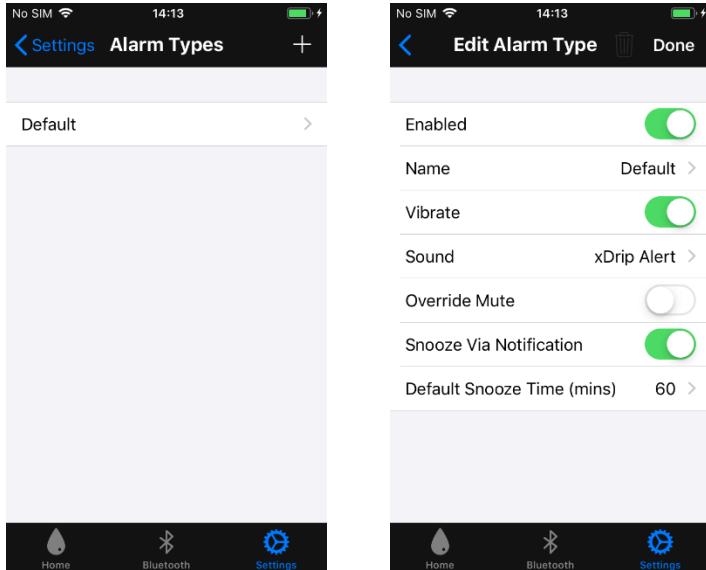
You can define Alarm types and set Alarms.



Edit the alarm to define which alarm type will be used and what BG level will trigger it.



You can customize the alarm type and create new types:



Override mute

Alarms volume is as set for notifications (alarm sound is added in notifications) iOS will decide whether it will be played or not: depending on the phone being muted or not and on the volume.

Override mute

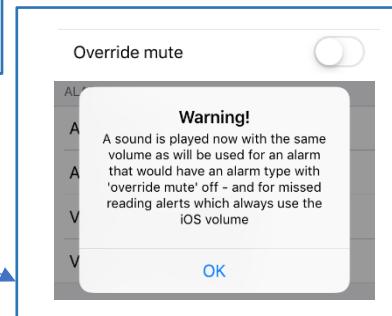
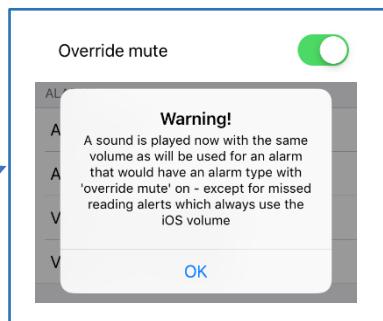
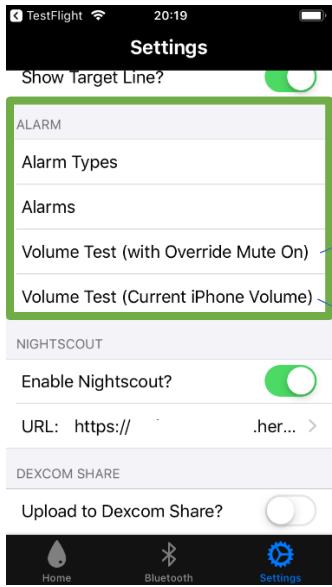
Alarm sound is played through a soundplayer. The volume used is the one that was set while the app was open. To modify it you can have an alarm go off, open the app, and then adjust the volume. Or you can select a sound for an alarm type and let it play, then adjust the volume.

That's the volume that will be used, no matter if you have your phone mute, and no matter the volume of the phone notifications.

Be careful if you change (for example) the volume of a WIFI speaker through an app, that may also change the volume of the alarms in xDrip.

Always test before going to sleep.

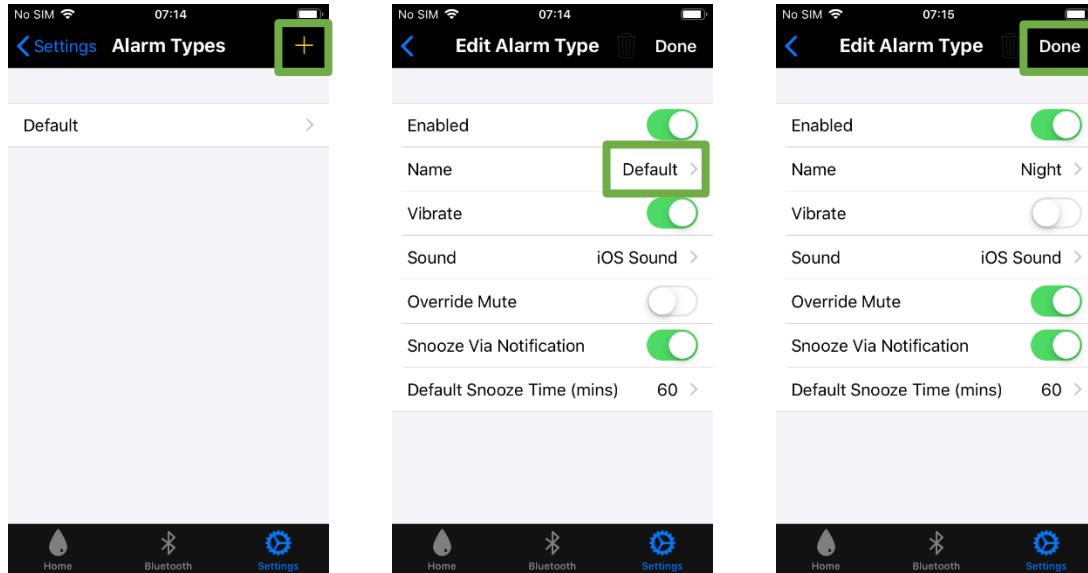
You can test the volume for both Override mute options:



Remember changing the volume level on your phone will also change your alarms volume.

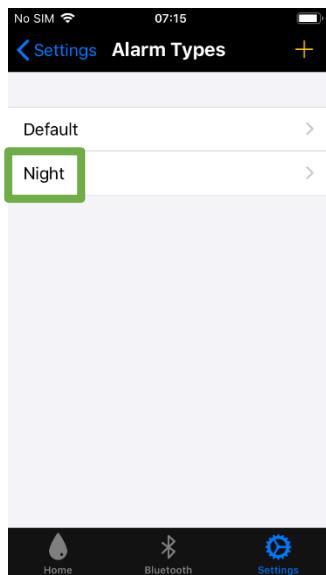
b. Alarms: example

In Alarm Types, touch  to create a new alarm type. Rename it as you wish (here: Night).

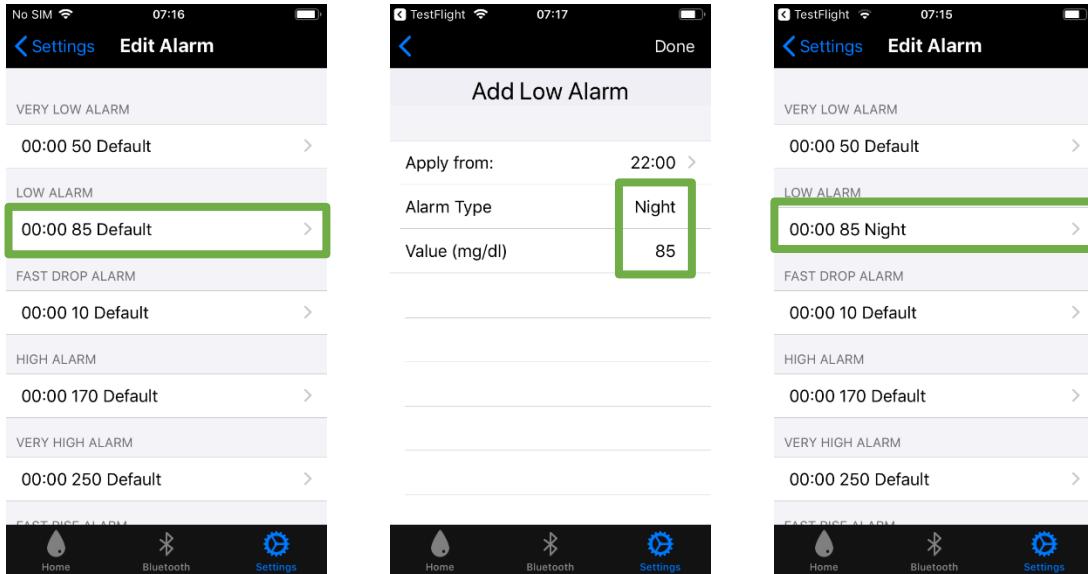


Define the ringtone, setup as you like. Then touch Done when finished.

Now you have another Alarm Type.

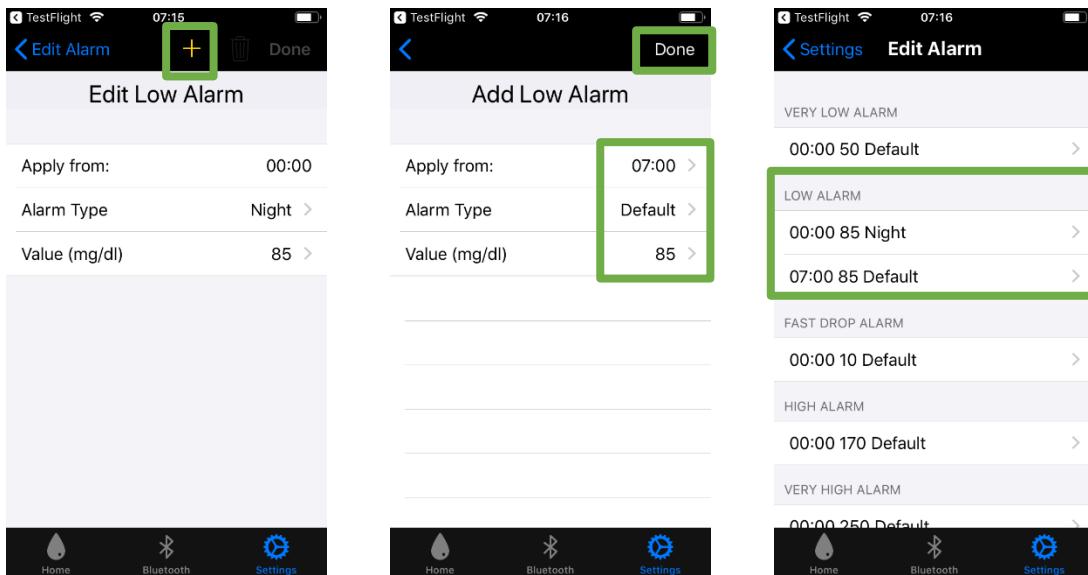


Always in settings, go to Alarms and change (for example) your Low Alarm to "Night" at 85 mg/dl



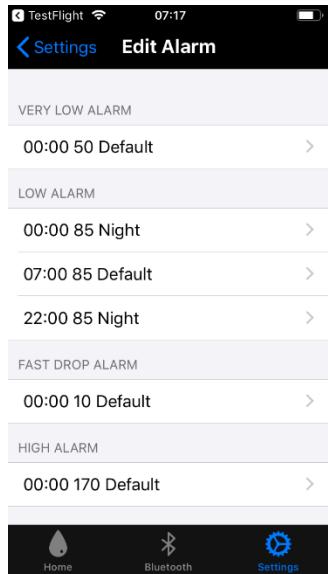
If you want this alarm to trigger only during night time, edit again you Low Alarm and touch

Add a new alarm starting at 7:00 for example, set type, threshold, and touch Done.



Now you have two different time segments with 2 different alarm types.

Add another one and you have defined your low alarm to use the “Night” alarm type from 22:00 to 7:00 and “Default” the rest of the day.



In this example you've set the threshold to 85, but you could set your Low value different for night and day.

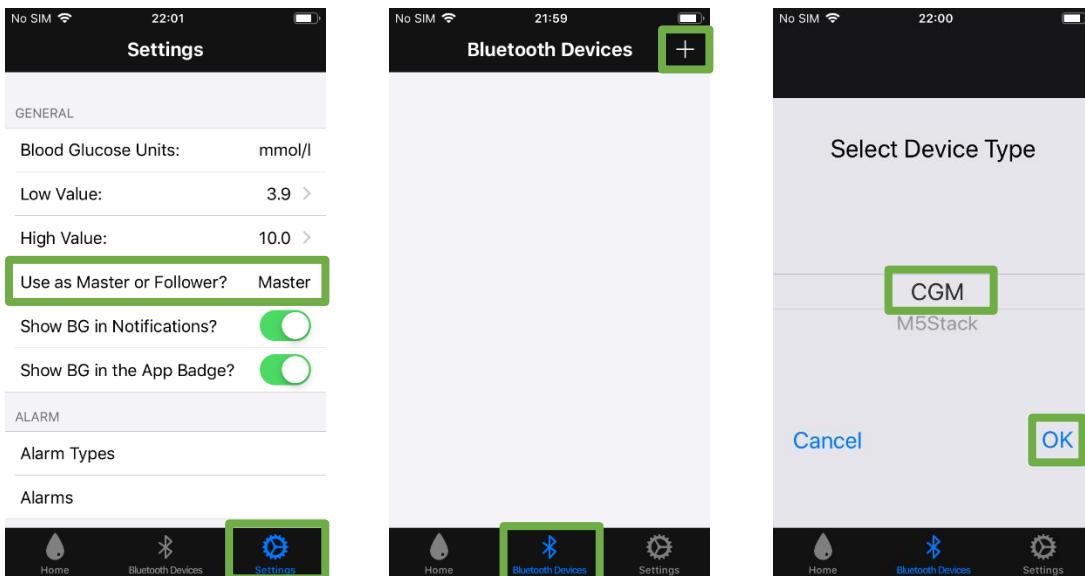
c. Data source

Do NOT try to pair your sensor/transmitter with the phone Bluetooth settings!

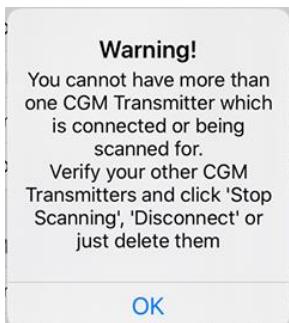


If you will use xDrip with an actual sensor, select Master in the settings menu.

In the Bluetooth menu, add the transmitter type you're using: touch + and select CGM, Ok.



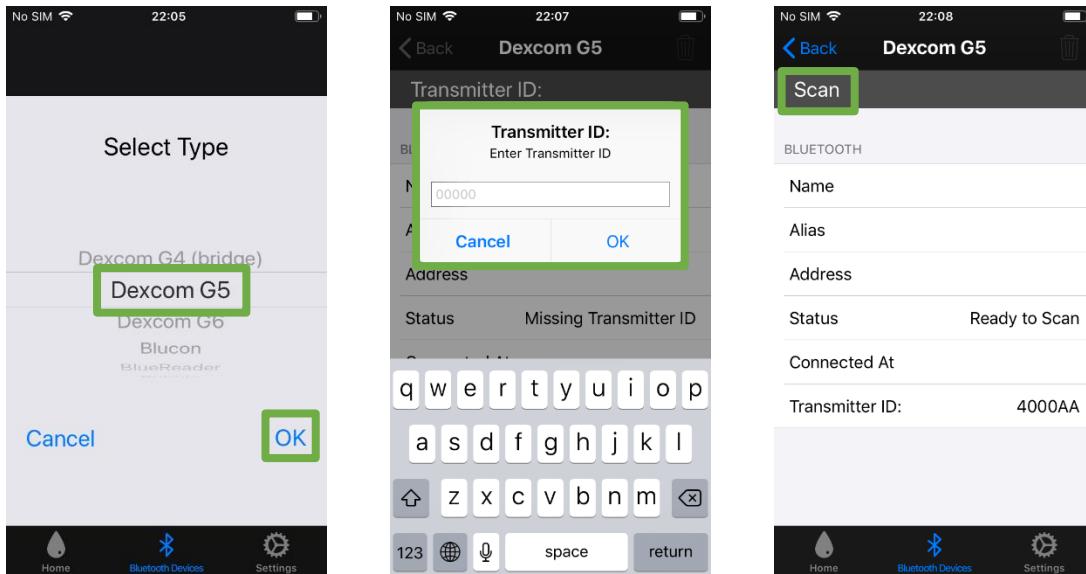
You can add several CGM devices but only one will be connected at a time: select stop scanning, disconnect or delete it before adding another one.



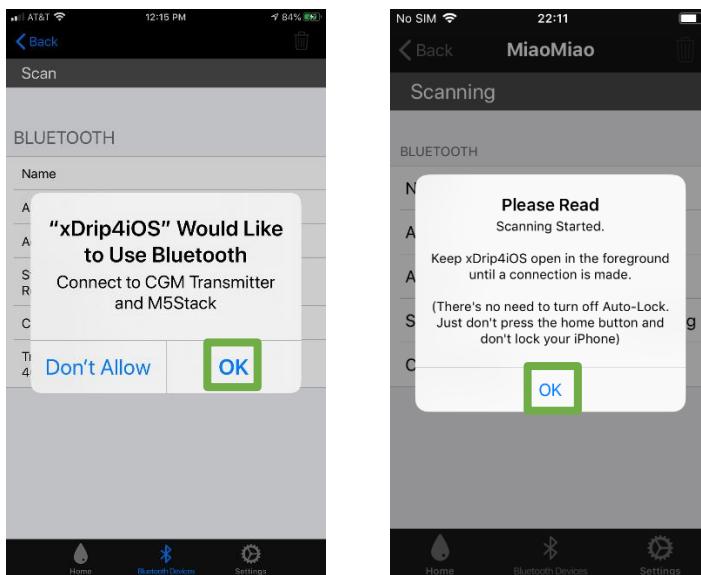
Dexcom

Dexcom G4 needs an [xBridge](#) to connect.
Dexcom G6 versions 8G (Firefly) and above are not supported.

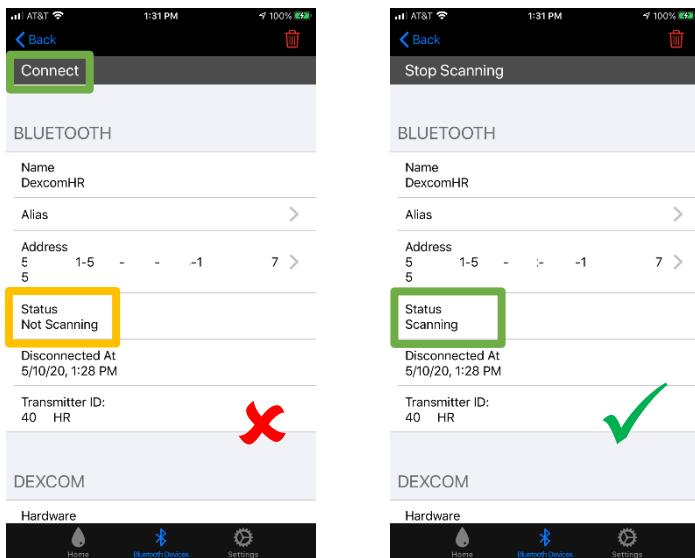
Select type, enter the ID as indicated on the back of the device.
Then touch Scan.



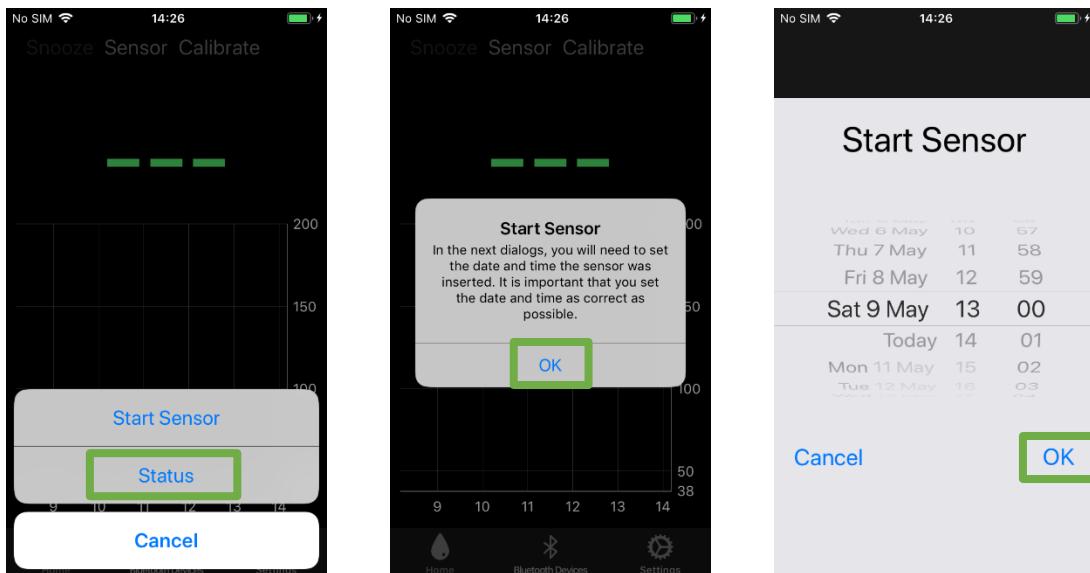
Be patient: the transmitter communicates only every 5 minutes.
Keep the app open until your transmitter is found.



In order for xDrip to communicate correctly with the sensor/transmitter you should disable any other app that will try to do the same:
Dexcom, Spike, etc.



Touch Start Sensor and enter the real date and time you started the sensor



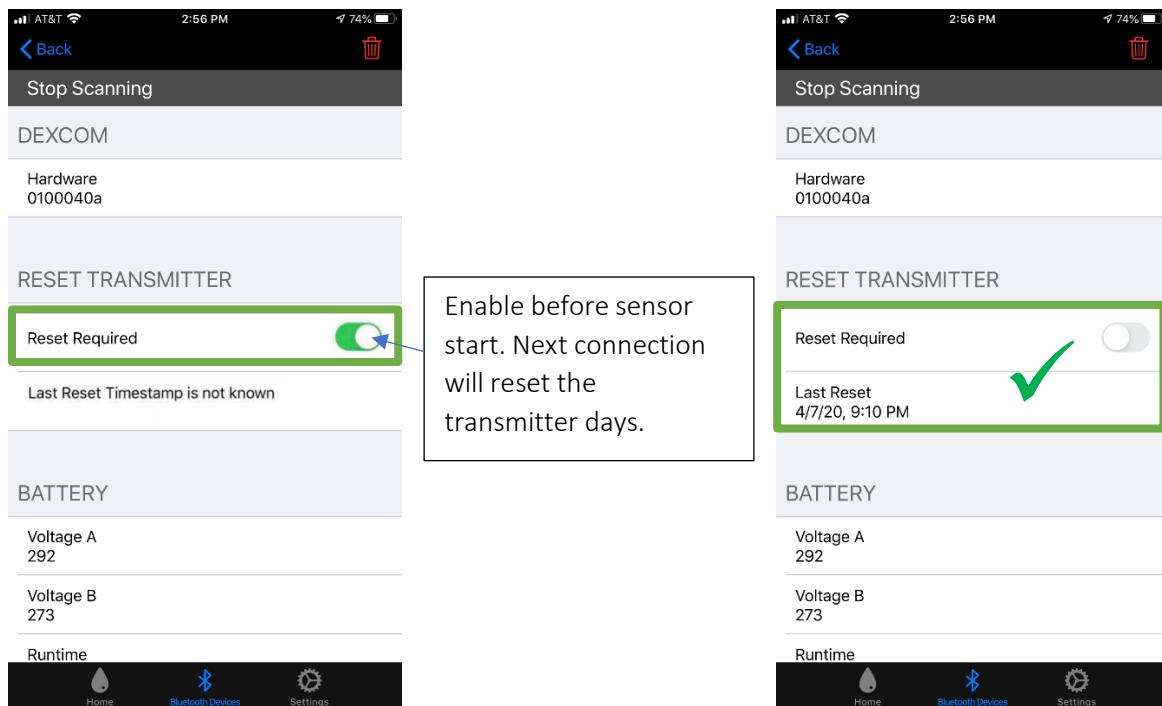
Be patient: the transmitter communicates only every 5 minutes and you'll need 2 measurement before calibration is requested. Could be 15 to 30 minutes...

Dexcom transmitter reset

You can request a Dexcom transmitter reset in order to roll back the internal clock to 0 days hence increase its lifetime past the limit. This is mandatory for rebatteried transmitters with the Dexcom app.

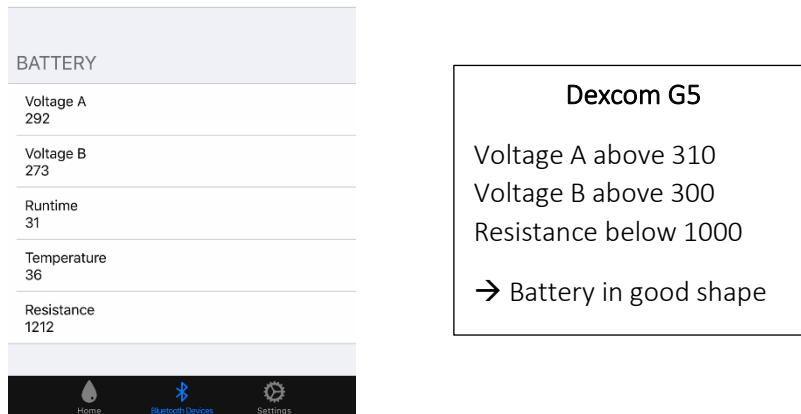
Dexcom G5 transmitters can work past the official 112 days and restarting them will usually allow some more time (2 months more or less).

Dexcom G6 (only 80 and 81 series) transmitters don't hold that long (unless they're rebatteried).



Once reset you can use the transmitter either with xDrip and the standard Dexcom app.

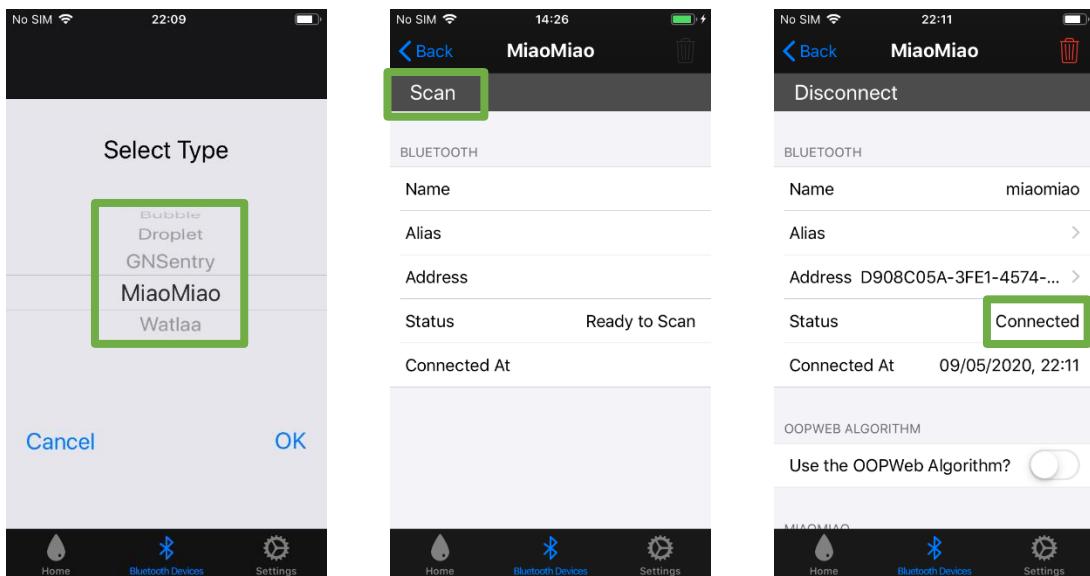
You will find more transmitter data below:



Freestyle Libre Transmitters

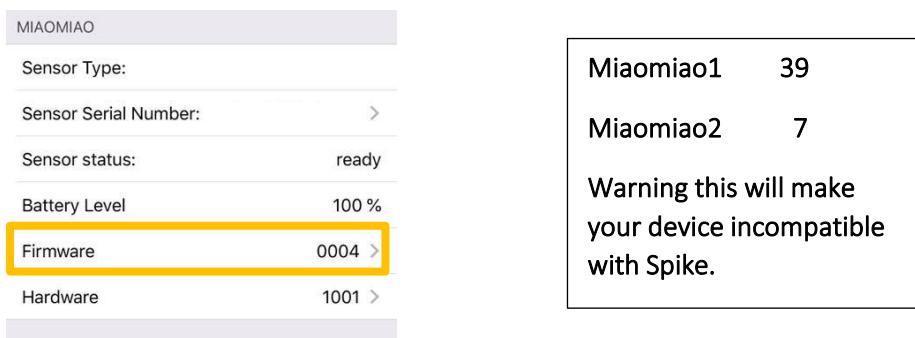
Only for Blucon: enter the ID indicated on the device to allow pairing.

Touch Scan.

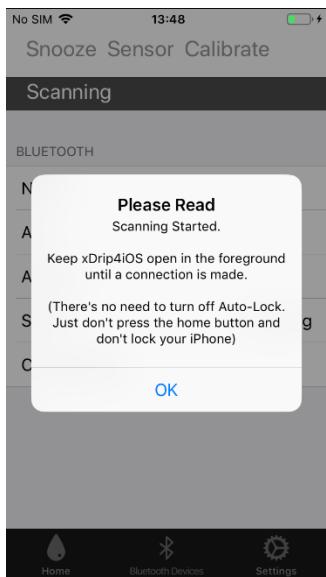


Important for Miaomiao 1 and 2:

For recent Libre 1 sensors and Libre 2 make sure you have a recent firmware on your device.



In order to upgrade the device firmware you need to remove it from xDrip4iOS and install Tomato. Once complete, uninstall Tomato, reset the transmitter and scan with xDrip4iOS.



In order for xDrip to communicate correctly with the sensor/transmitter you should disable any other app that will try to do the same: Tomato, Diabox, Spike, etc.

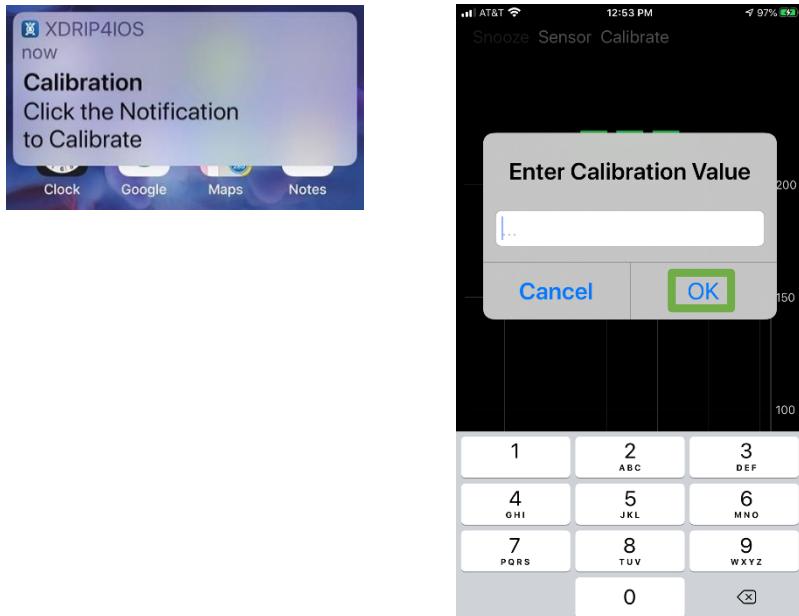
Be patient: if OOPWeb is not selected you'll need 2 measurement before calibration is requested. Could take up to 20 minutes...

If you have several transmitters make sure only the one you want to connect to is close to the phone and leave the others either far away or in a shielding bag (or microwave oven).

If you can't seem to find your transmitter, put it in charge and reset it.

3. Calibration

After a sensor startup, when required to, enter your actual BG.

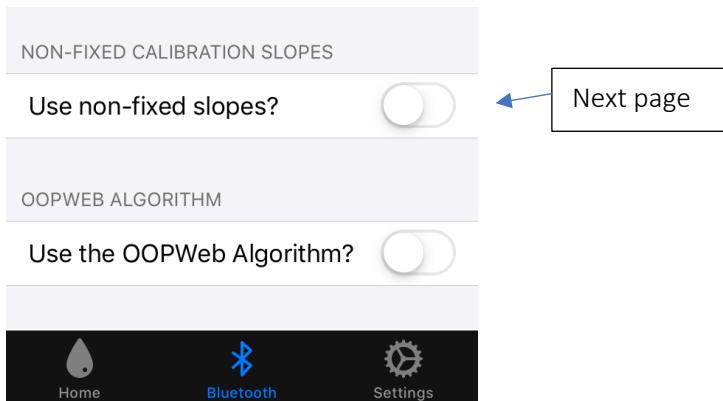


With a started sensor you can add a calibration value touching Calibrate.



Display developer tip: a long press on the value (wait for a vibration) will lock the screen on xDrip until you change app, go to the home screen or lock the phone.

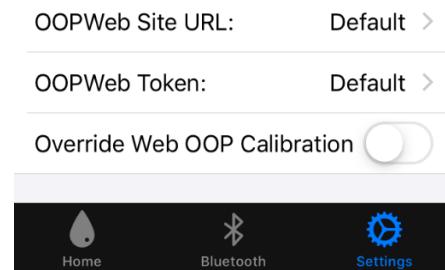
Libre specific calibration information:



Out of process web service:

The image compares two scenarios for enabling the OOPWeb algorithm. On the left, under "OOPWeb not enabled:", it says "You need to calibrate with blood tests. See below for more information." On the right, under "OOPWeb enabled:", it says "You don't need to calibrate and you can't calibrate (except with override). This feature requires internet access. When internet is not available, a message will show up on your phone to inform you readings are not available. Mandatory and enabled by default for Libre 2." Both sections have a switch at the top; the left one is off and the right one is on.

Note: If you've built your own OOPWeb server you can customize xDrip4iOS in Setting. If you don't own one, ignore this and leave Default.



Calibration strategy:

<p>Use non-fixed slopes? <input type="checkbox"/></p> <p>Simple calibration method, recommended</p> <p>Accuracy is better when BG is close to your calibration value. Calibrate in the low normal range. Don't rely on values for corrections when high.</p> <table border="1"><tr><td>16.7</td><td>300</td><td>Accuracy</td></tr><tr><td>13.9</td><td>250</td><td></td></tr><tr><td>11.1</td><td>200</td><td></td></tr><tr><td>8.3</td><td>150</td><td></td></tr><tr><td>5.6</td><td>100</td><td><- Calibration</td></tr><tr><td>2.8</td><td>50</td><td></td></tr></table> <p>Values will be more accurate close to your calibration: don't calibrate when high, best results when stable normal low range.</p>	16.7	300	Accuracy	13.9	250		11.1	200		8.3	150		5.6	100	<- Calibration	2.8	50		<p>Use non-fixed slopes? <input checked="" type="checkbox"/></p> <p>Advanced calibration method, more accurate</p> <p>Accurate range is larger. Calibrate in the low normal range first, then in the high normal range.</p> <table border="1"><tr><td>16.7</td><td>300</td><td>Accuracy</td></tr><tr><td>13.9</td><td>250</td><td></td></tr><tr><td>11.1</td><td>200</td><td></td></tr><tr><td>9.7</td><td>175</td><td><- Calibration</td></tr><tr><td>8.3</td><td>150</td><td></td></tr><tr><td>5.6</td><td>100</td><td><- Calibration</td></tr><tr><td>2.8</td><td>50</td><td></td></tr></table> <p>Values will be more accurate in the normal range. Calibrate first stable normal low then stable normal high.</p>	16.7	300	Accuracy	13.9	250		11.1	200		9.7	175	<- Calibration	8.3	150		5.6	100	<- Calibration	2.8	50	
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Note: dramatization, results will vary from sensor to sensor.

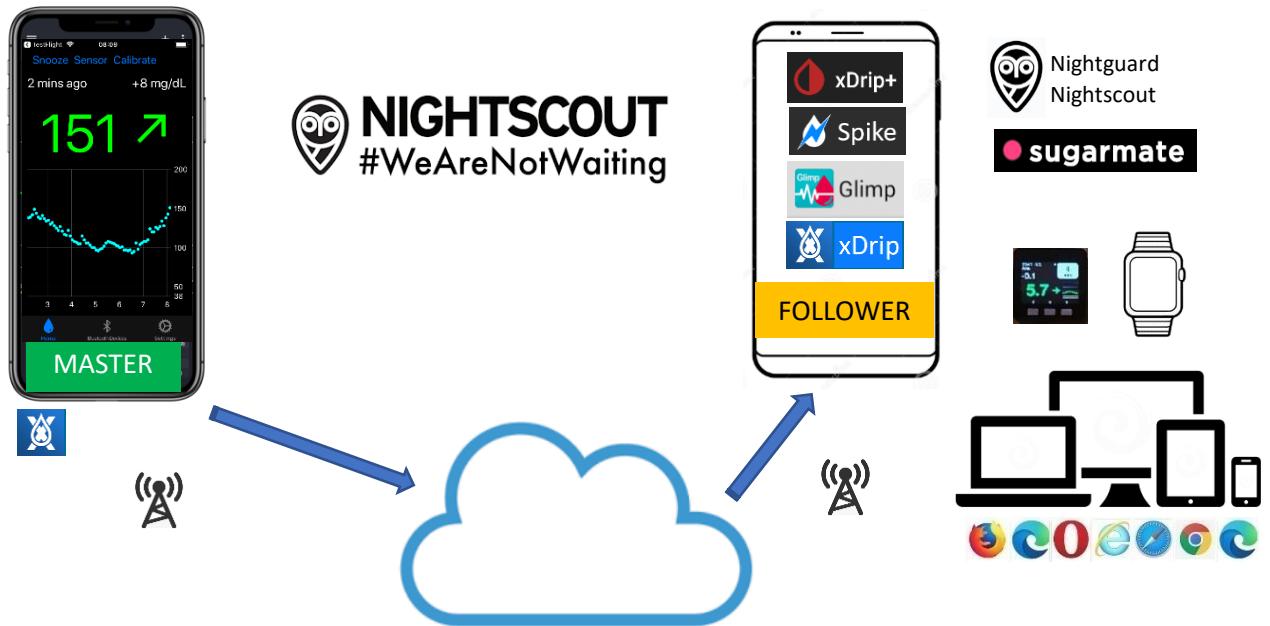
In order to reset all calibrations, stop sensor and then start sensor.



Note: It will not do anything harmful to the sensor since you can't physically stop or start a sensor with xDrip for iOS

4. Sharing data

Nightscout is the universal open source CGM data sharing and reporting infrastructure. It is widely supported by open source and proprietary apps.

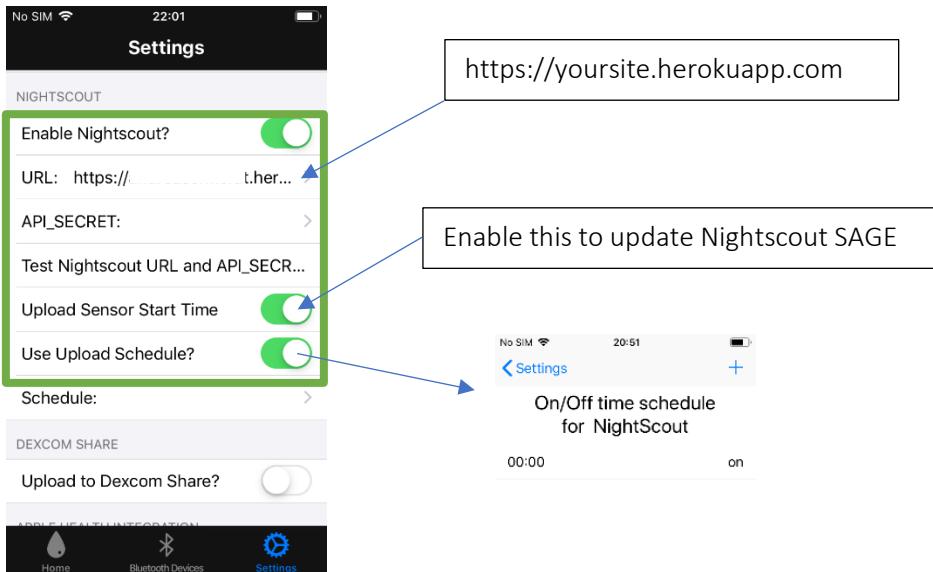


To build your Nightscout cloud: <http://www.nightscout.info/wiki/welcome/set-up-nightscout-using-heroku> and <https://www.youtube.com/watch?v=NoLOTW1ZSfc>

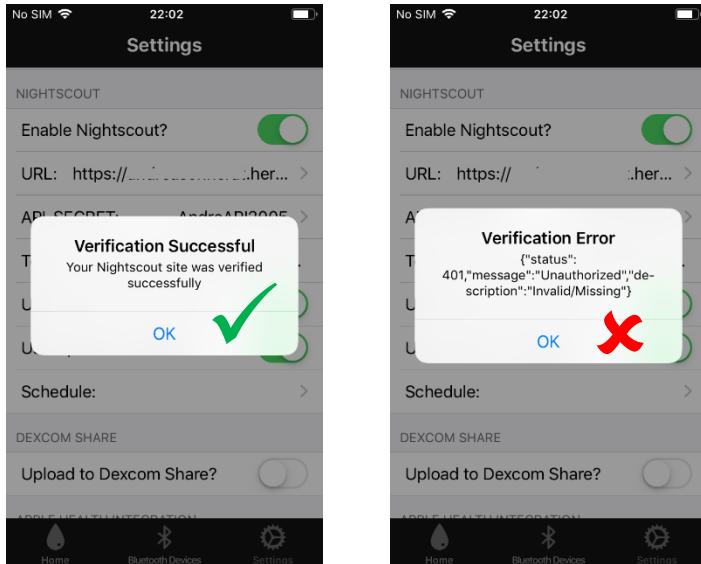
For help requests join the group <https://www.facebook.com/groups/cgminthecloud/>

Nightscout

If you have a [Nightscout](#) Site, enable Nightscout and enter your URL and API Secret. You can also schedule when you want to upload to Nightscout.

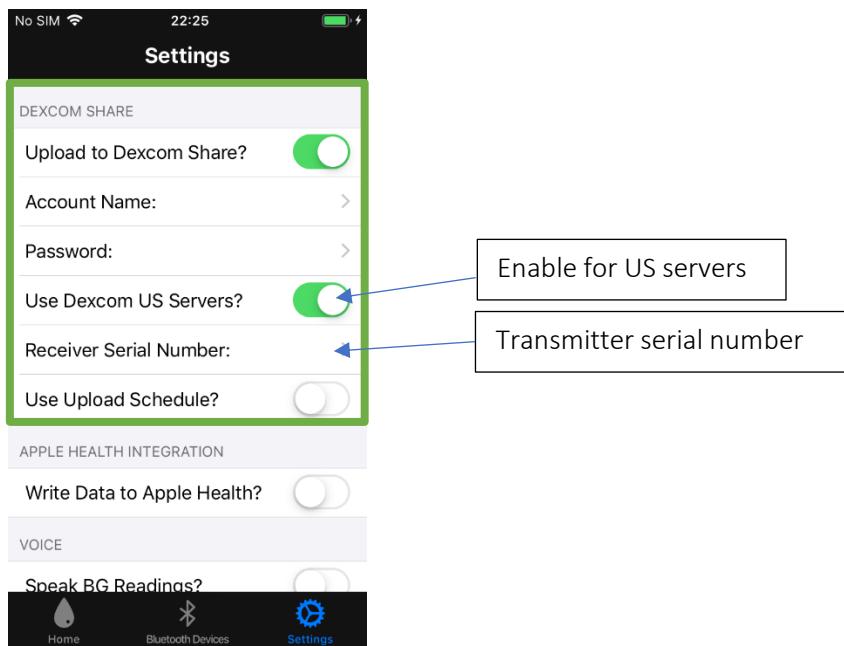


Use Test Nightscout and API_SECRET to verify the information.



Dexcom Share

If you have a Dexcom Share account, enter your credentials to share data with the official Dexcom Share app on another phone.

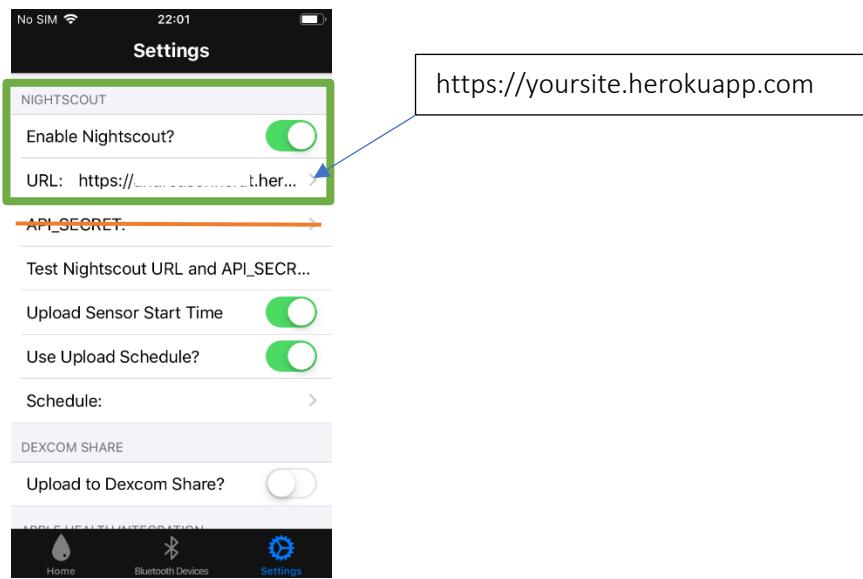
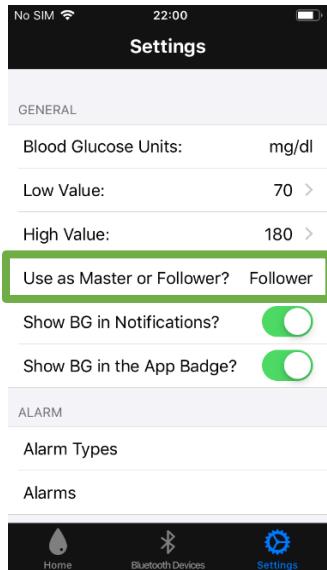


Keep in mind you can share your data but they will not be uploaded in Clarity.



5. Nightscout follower mode

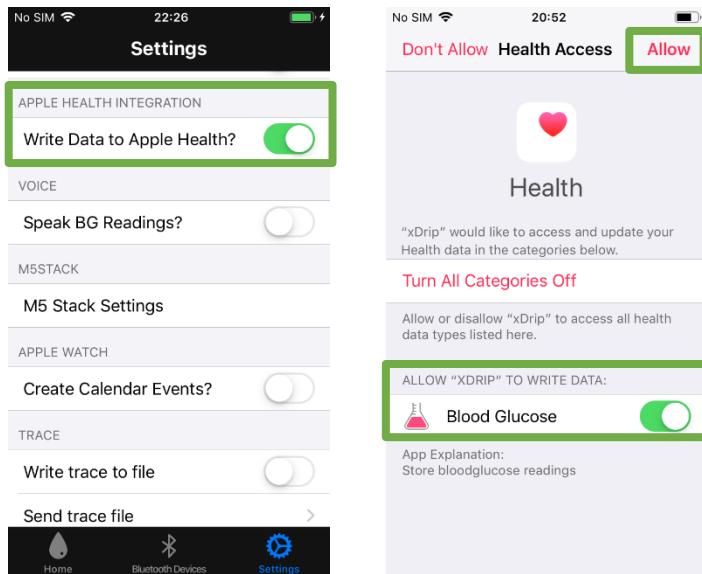
You can use xDrip as a follower of a Nightscout site.



If Nightscout doesn't sync immediately after a phone restart, select the URL and touch Ok.

6. Apple Health

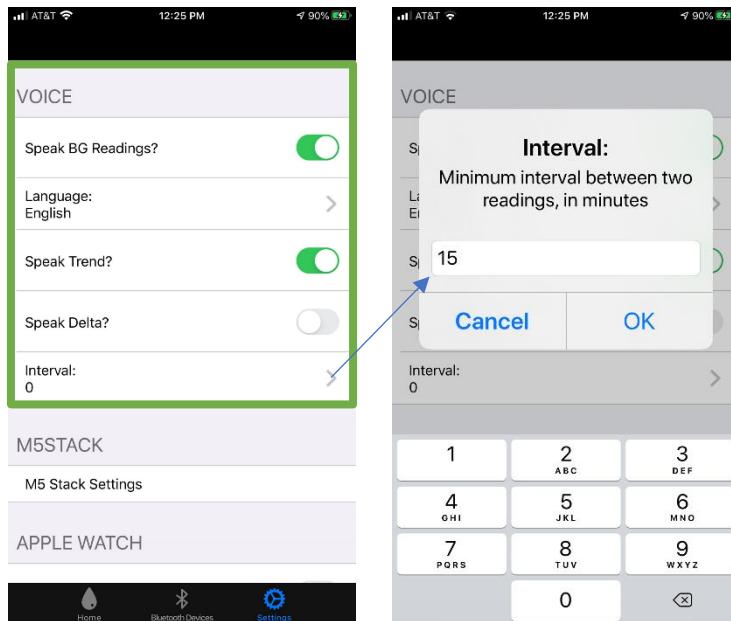
You can enable Write Data to Apple Health to send your BG data to Health.



7. Spoken Readings

You can enable Speak BG Readings to have your phone speak out loud each measurement, trend or change.

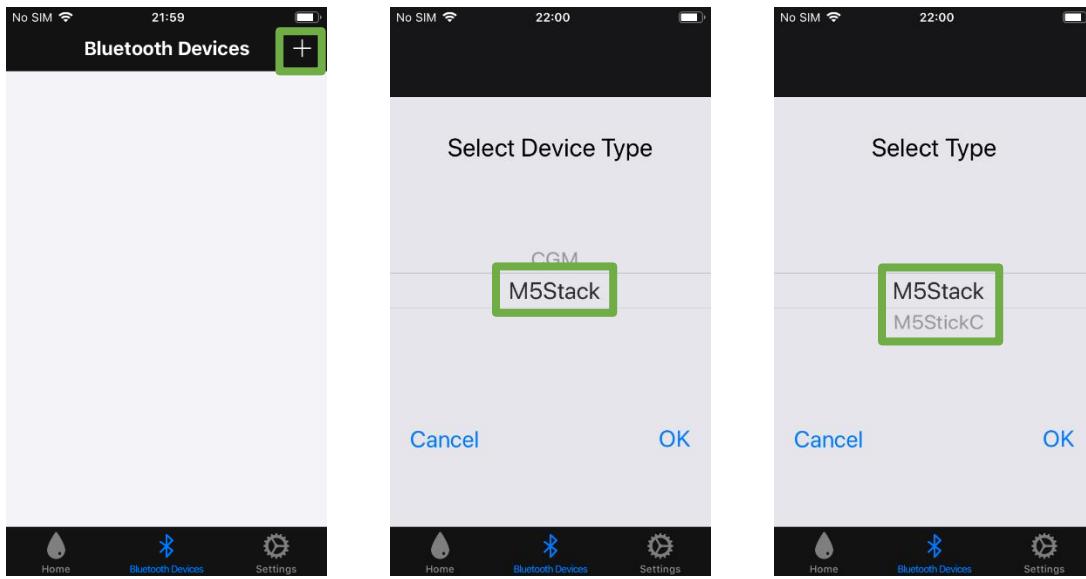
You can change the interval between two readings.



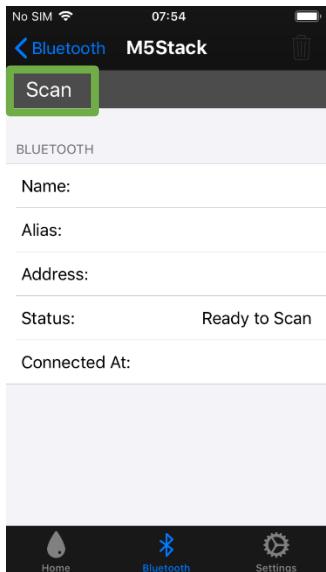
8. M5Stack

Support for the M5Stack/M5Stick Bluetooth customized version of Martin Lukasek M5NightscoutMon project.

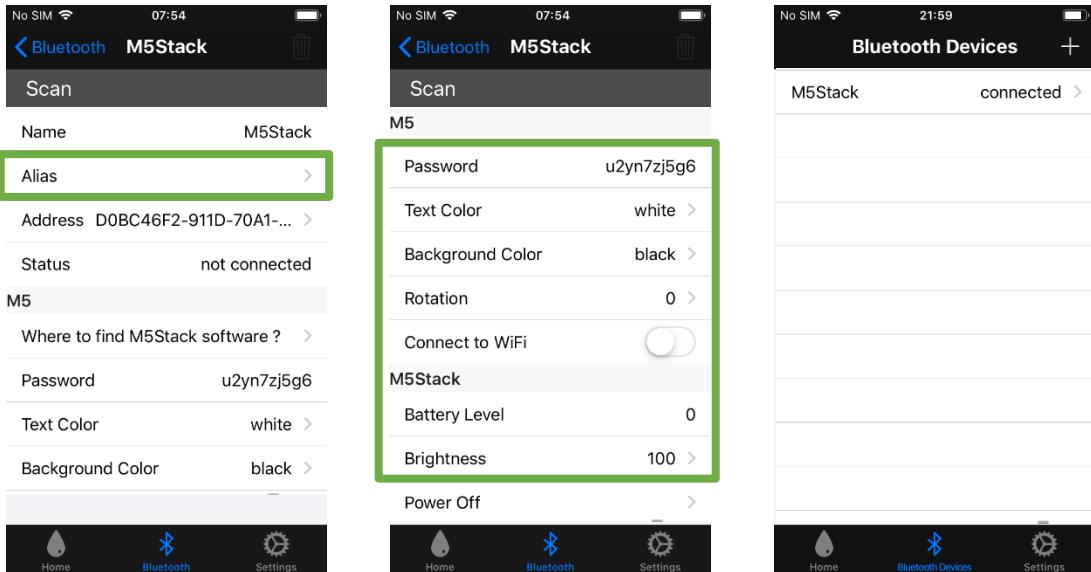
In Bluetooth Devices touch +, then select your device category and type



Select Scan, and once the device found, Always Connect



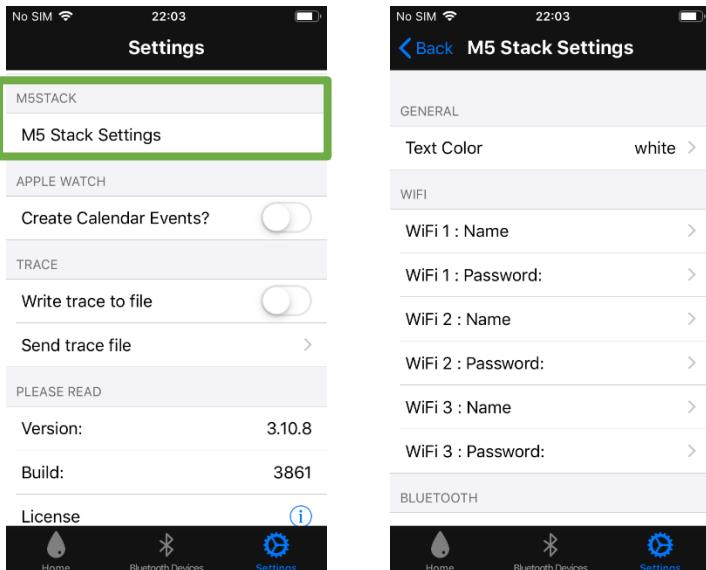
You can customize various options of your M5Stack.



If your M5Stack is showing reverse colors (some show this defect), change text and background colors.

To power off the M5Stack, touch Power Off.

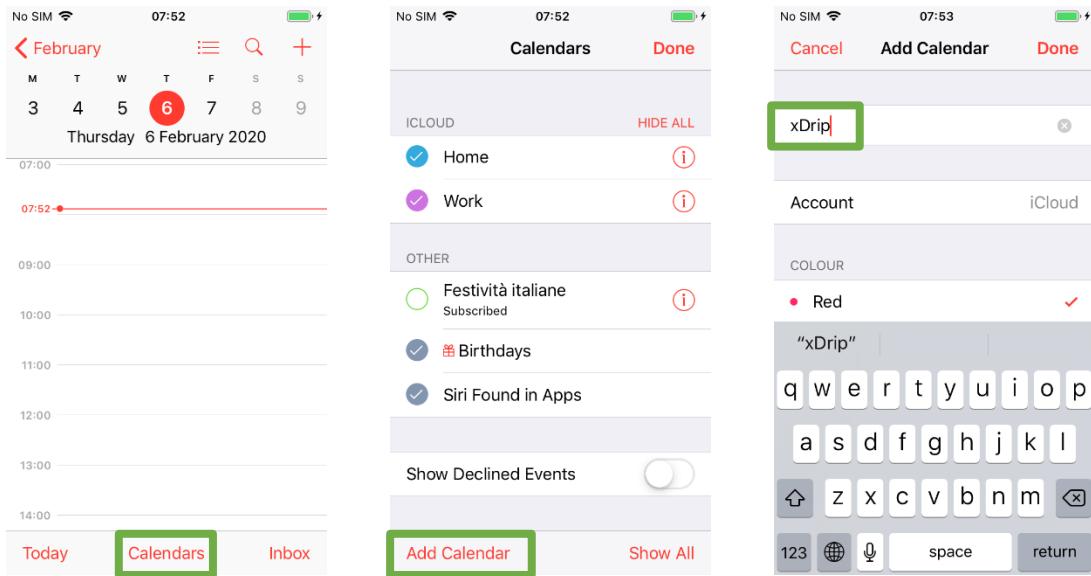
Once connected you can modify more options in the settings tab:



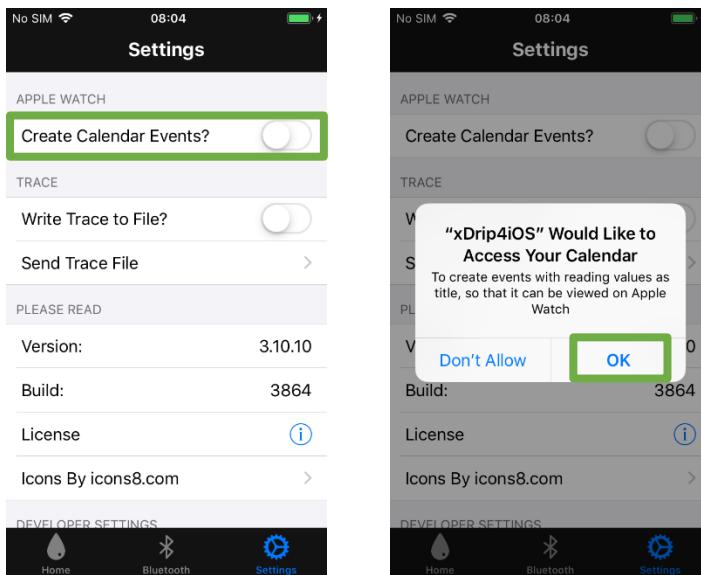
9. Apple Watch integration

Not applicable to Nightscout Follower mode.

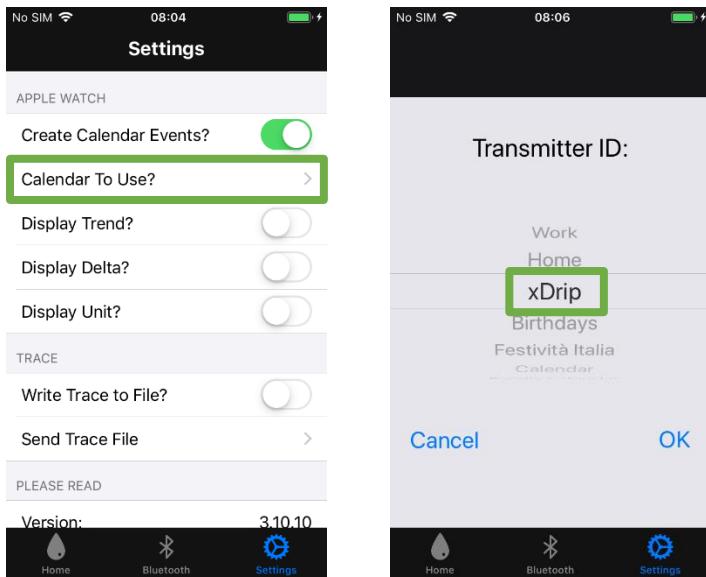
Into your iPhone calendar create a calendar called xDrip.



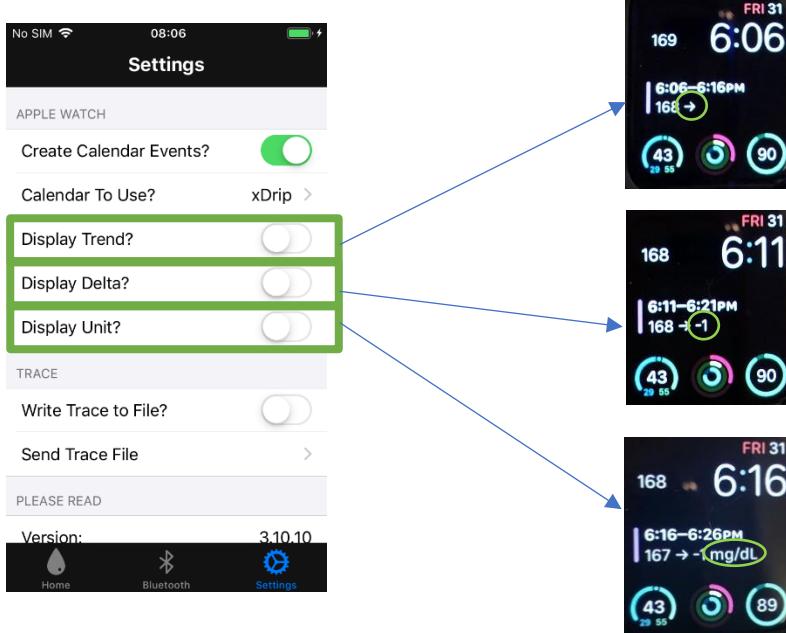
Create an event in calendar to allow sync'ing with your Apple Watch. Authorize xDrip.



Select the xDrip calendar.



Customize the indications.



On your Apple Watch or the Watch app in your iOS device select the "Modular" watch face and make sure you also select the "Calendar Complication" to be present in the middle of the watch face. Your glucose values should now start syncing to your watch when you receive your next reading from your CGM transmitter. If by any chance you're not getting readings in your Apple Watch, go to the Watch app and under "General", "Reset" click the "Reset Sync Data" and wait a few minutes.

(From Spike)

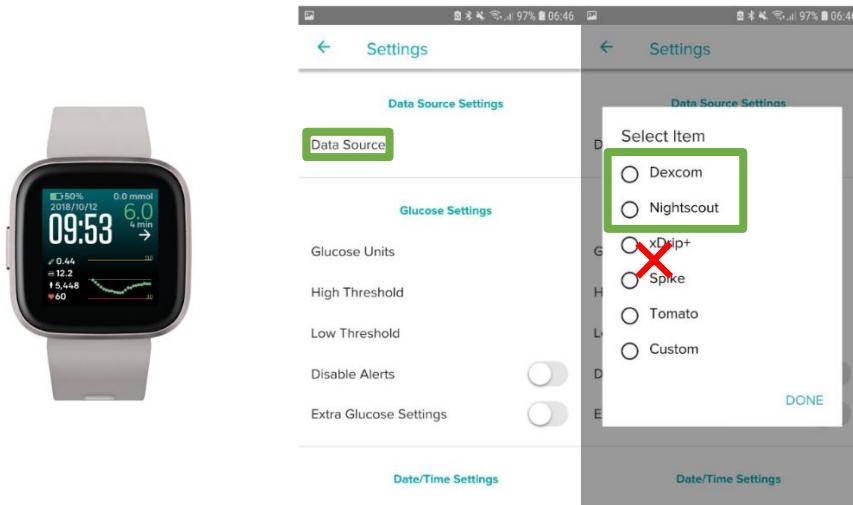


10. Fitbit Versa/Ionic

You need Nightscout or Dexcom Share to use the Glance or Sentinel quadrant.

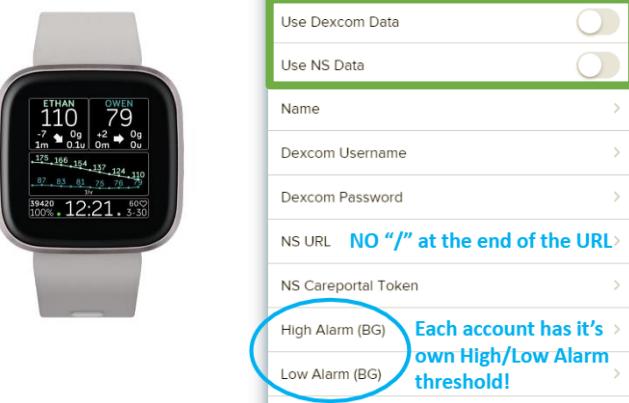
<https://gallery.fitbit.com/details/7b5d9822-7e8e-41f9-a2a7-e823548c001c> Glance

The xDrip data source specified in the documentation stands for xDrip+ for Android. Not this app.



<https://gallery.fitbit.com/details/22b3679c-3bed-4408-985b-0a9f35102207> Sentinel Pro

Support in the dedicated group <https://www.facebook.com/groups/3185325128159614>



11. Garmin

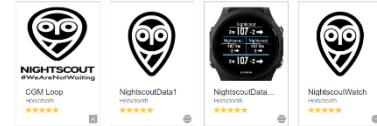
You need Nightscout and can find several quadrants in the connect iQ store.

Install Garmin connect from the store <https://apps.apple.com/us/app/garmin-connect/id583446403>

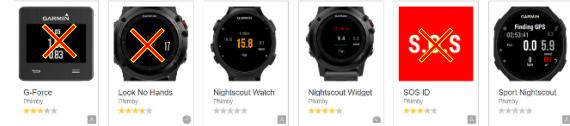
Apps by andreas-may



Apps by Horsetooth



Apps by Phimby



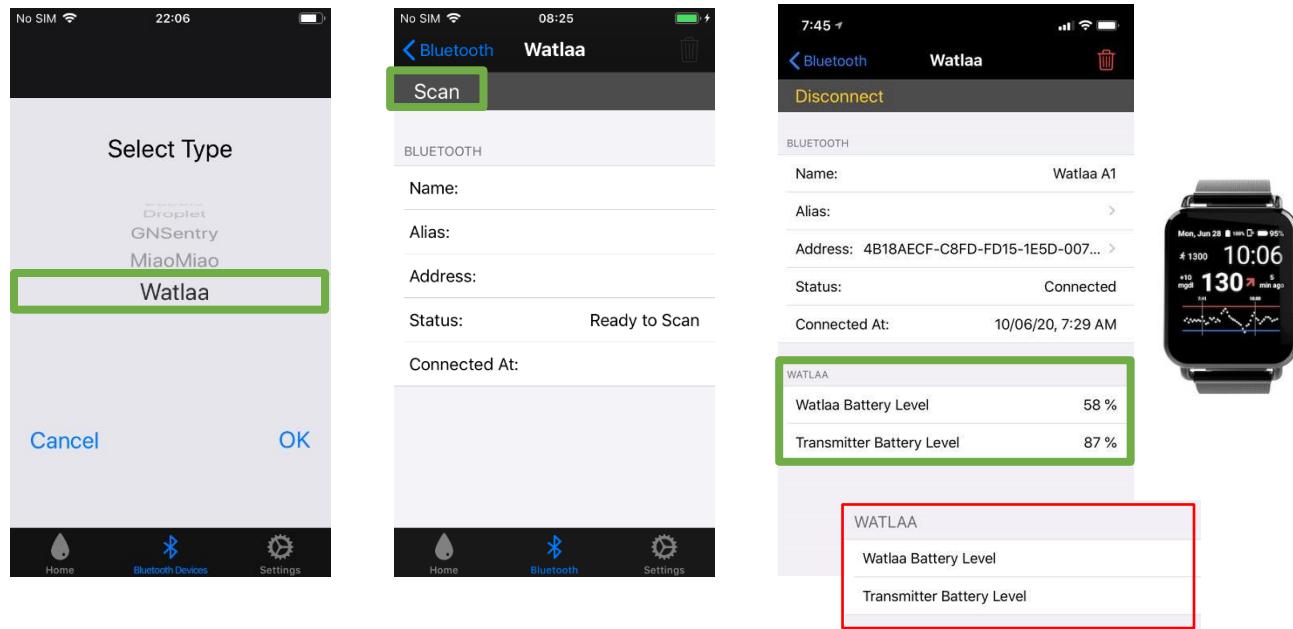
12. Watlaa support

For Libre 1 users the fantastic work of another T1 kid father see <https://watlaa.com/>

Watlaa connects directly to your Libre 1 transmitter (Bubble, MiaoMiao, ...) and xDrip for iOS will see it as a CGM. The watch is standalone and will act as a repeater to your phone. Your phone will connect to Watlaa like if it was the actual transmitter.

Before pairing Watlaa, make sure you have the latest firmware installed <https://watlaa.com/manual/> and that it's disconnected from the phone you used to upgrade.

If battery level doesn't show, or you're expecting pairing problems, delete and rebind a few times, having battery level displaying confirms correct connection.



Give the watch 10/15 minutes to pick-up data.

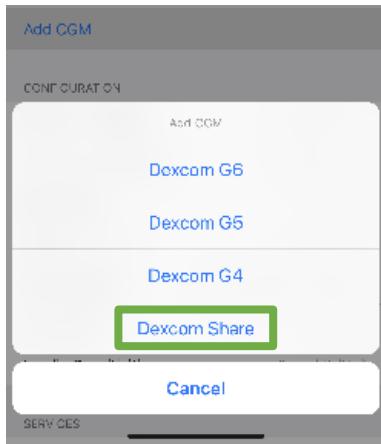
Remember to enter calibrations in both xDrip4iOS and Watlaa if you want matching readings.

13. Loop integration

<Work in progress...>

Dexcom users do not need xDrip and should leave this to Loop as per
<https://loopkit.github.io/loopdocs/operation/loop-settings/cgm/>

If you absolutely want to use xDrip, you should set the CGM data source to Dexcom Share and keep in mind your Loop is internet dependent (and Dexcom server availability dependent...)



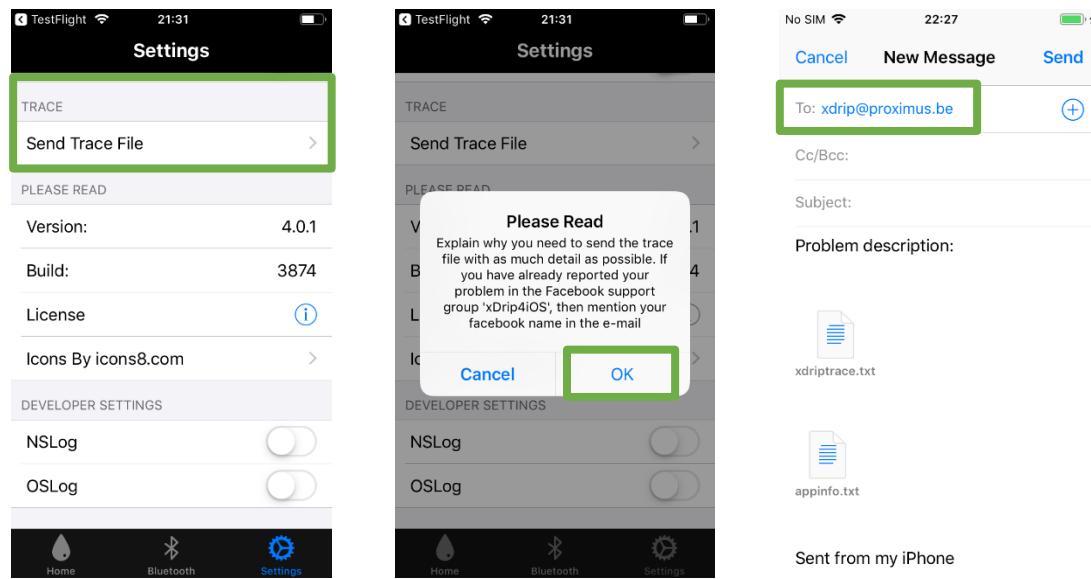
Libre users please visit the official [Looped](#) group.

You can look into FreeAPS with the Nightscout data source <https://github.com/ivalkou/LoopWorkspace/>

14. Troubleshooting

You can share logs trace file with email. Please send emails only upon request, or with a clear explanation of the issue and all steps performed, if you already reported your problem in the Facebook group mention your Facebook name in the e-mail.

Note that you can change the destination email in case someone else wants to look into the logs.





<https://www.facebook.com/groups/853994615056838/>



<https://github.com/JohanDegraeve/xdripswift>



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(Documentation only)

Patrick Sonnerat

Documentation change log for translators:

4.2.12

Page 9: mmol/l display and decimals

Page 18: Miaomiao firmware

4.2.0

Page 8: Added objectives

Page 11: Added alarm creation examples

Page 20: Libre 2 support, calibration tips

4.1.1

Added numbering

Page 3: TestFlight link should be touched on phone when installing

Page 15: Libre 1 only

Page 10: Added alarm test description

Page 25: Apple Watch doesn't work in follower mode

Page 28: Added examples

Page 30: Added Watlaa details