

Closing the Loop

Advanced Session

LOOP

LoopDocs

QuickTime Player File Edit View Window Help

Overview - LoopDocs

loopkit.github.io/loopdocs/build/overview/

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Overview of Build Process

The overall installation process is pretty simple. We start with checking that you have the compatible gear needed to Loop, do a couple of preparation steps on the computer, and then move onto building the Loop app.

While all of this is probably quite intimidating at first, I promise that it is quite doable by the average computer user.

Take it one step at a time...

If you are worried about how long this will take, you can always stop at one of the steps and come back later. The steps are meant to be nice stopping points to take breaks if needed.

My Post (7).png time-32222821...png BTS-ENGLISH...png hanting.png teal.png Show All

Building Loop

Kdisimone / Loop
forked from LoopKit/Loop

Watch 51 Star 47 Fork 571

Code Pull requests 0 Projects 0 Wiki Security Insights

An automated insulin delivery app template for iOS, built on LoopKit

1,058 commits 11 branches 46 releases 25 contributors View license

Branch: master New pull request Create new file Upload files Find File Clone or download

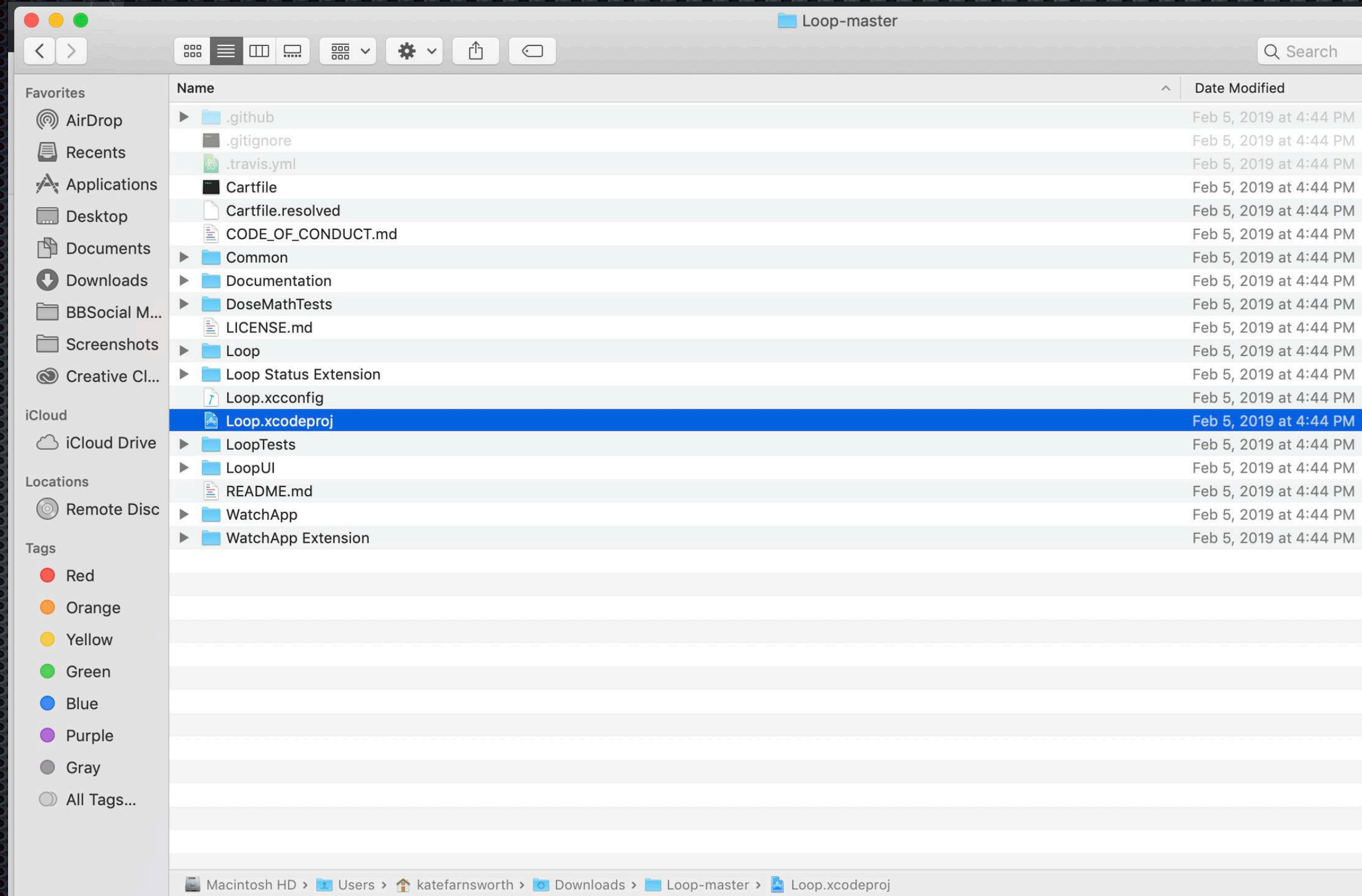
This branch is 1 commit behind LoopKit:master.

UlricusR and ps2 Corrected German localizable strings (LoopKit#875)

File	Description	Time
.github/ISSUE_TEMPLATE	Update issue templates	
Common	Watch Feature Updates (LoopKit#825)	
Documentation	Updating LoopKit and RileyLinkKit with more conservative support for ...	3 years ago
DoseMathTests	Corrected German localizable strings (LoopKit#875)	5 months ago
Loop Status Extension	Merge in master	6 months ago
Loop.xcodeproj	Bump version (LoopKit#867)	6 months ago
Loop	Corrected German localizable strings (LoopKit#875)	5 months ago
LoopTests	Bump version (LoopKit#867)	6 months ago
LoopUI	Fix merge conflict	6 months ago
WatchApp Extension	Fix rendering of target ranges in chart complication (LoopKit#870)	6 months ago
WatchApp	Bump version (LoopKit#867)	6 months ago
.gitignore	Build on the fly (LoopKit#751)	last year
.travis.yml	Update travis to xcode10	10 months ago
CODE_OF_CONDUCT.md	README and CODE_OF_CONDUCT	3 years ago
Cartfile	Bump to rileylink ios release	6 months ago

Clone with HTTPS Use SSH
Use Git or checkout with SVN using the web URL.
https://github.com/Kdisimone/Loop.git
Open in Desktop Download ZIP

Building Loop



Building Loop

The screenshot shows the Xcode interface for a project named 'Loop'. The 'WatchApp Extension' target is selected in the left-hand project navigator. The main pane displays the 'Identity' settings for this target, including the Display Name 'WatchApp Extension', Bundle Identifier 'com..loopkit.Loop.LoopWatch.watchkitextension', and Version '1.9.4'. Under the 'Signing' section, the 'Automatically manage signing' checkbox is checked, and the 'Team' is set to 'None'. A red arrow points to a status message that reads: 'Signing for "WatchApp Extension" requires a development team. Select a development team in the project editor.' Below this, the 'Deployment Info' section shows the 'Deployment Target' set to '4.1', and the 'Complications Configuration' section lists various supported families like 'Modular Small', 'Modular Large', etc., all of which are checked.

Building Loop

▼ **Signing**

Automatically manage signing
Xcode will create and update profiles, app IDs, and certificates.

Team

Provisioning Profile ⓘ

Signing Certificate

Build Errors

LoopDocs

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Build Errors

[Start with the obvious error causes](#)

[Posting for help](#)

[Find your error message\(s\)](#)

[No such module 'LoopKit' or similar message](#)

[Carthage version outdated](#)

[Missing Command Line Tools](#)

[Pending Certificate Request](#)

[Command CodeSign failed](#)

[Developer License Update](#)

[Unrecognized arguments: --cache-builds](#)

[Abort with Payload](#)

[Apple Watch: Loop app not appearing](#)

[Apple Watch: Loop app not installing](#)

[Xcode path not set correctly after using Xcode 11 GM](#)

Build Errors

There are two types of build errors that happen; they are yellow warnings and red alerts. You'll see the warnings and alerts in the left-hand column of the Xcode window.

Yellow warnings do not cause the build to fail, those are just warnings. Occasionally, a Loop version may have some minor discrepancies that cause a yellow alert...ignore those. Do not try to do anything to fix those...leave them alone.

Red error alerts will have to be resolved before you can successfully build the Loop app. The steps below explain how to resolve them based on the messages you are seeing.

Start with the obvious error causes

Before you start trying to resolve your red errors...start with the most obvious things that can cause a red error message:

1. **DO NOT USE BETA VERSIONS** If you are using an iOS beta version or an Xcode beta version, your Loop will not build. If you have Xcode beta, uninstall it and get regular Xcode. If you have iOS beta on your iPhone, you will need to restore your iPhone entirely. You can restore to either (1) the last non-beta backup version you saved or (2) restore as a new iPhone (default settings). Yes, deleting iOS beta is a pain...so don't install it in the first place.
2. **Did you check for updates?**

Minimum Versions

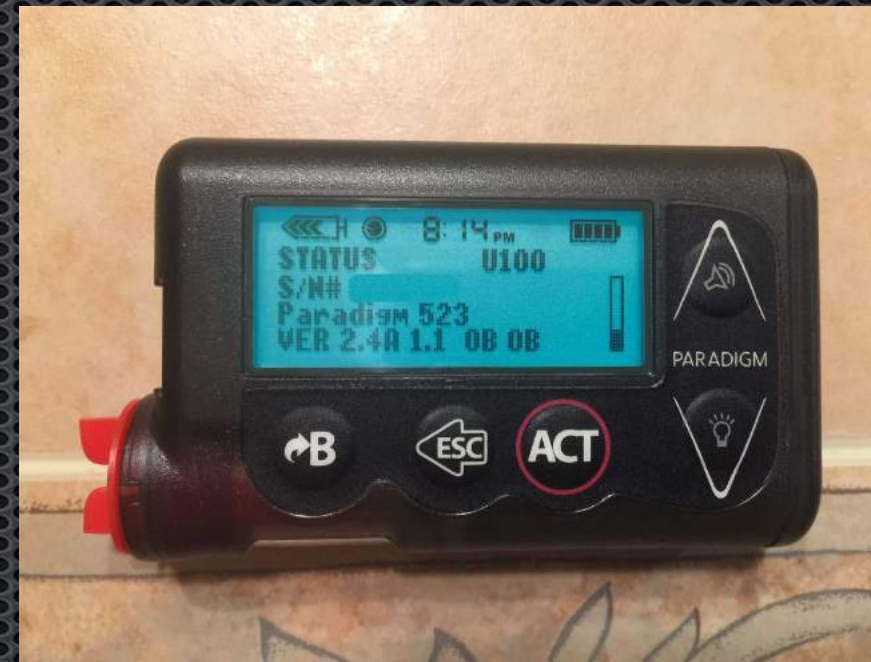
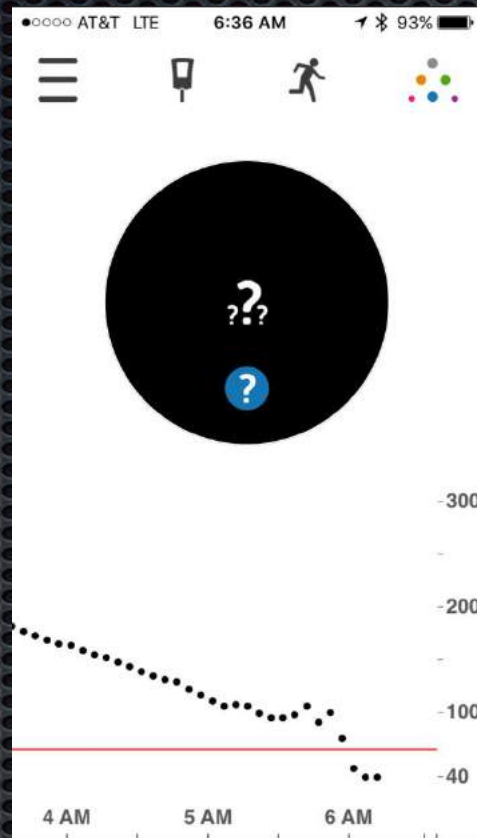
If you are building for Omnipod Loop, Loop dev, or have iOS 13 installed, make sure you have macOS 10.14.3 (Mojave) and Xcode 11 at a minimum. You will not be able to build for those without the minimum updates. Download Xcode 11 from the App Store to replace your Xcode 11 GM if you downloaded that previously.

3. **Did you reboot your computer after updating Xcode?** Yup...that was in the message on the Update Loop page...did you ignore it? ;)
4. **Get a fresh download of Loop code, don't just recycle an old download that you built with a long time ago.** That old version may not be compatible with new iOS and new Xcode versions.
5. If you are using a free developer account, you need to have finished the [removal of Siri capabilities](#).

Setting Up App



Tech Fails



“Dumb pump”

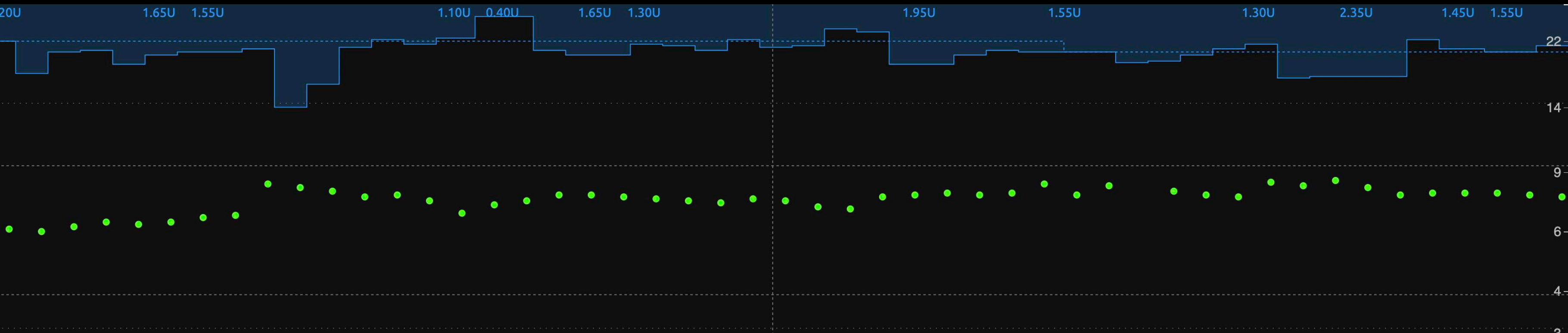
Fine Tuning

- Basal rates should keep your BGs steady in the absence of other influences (such as food, medications, etc).
- Boluses should return your BGs to target after a meal.
- ISF should be the amount one unit of insulin drops your BGs without other influences.

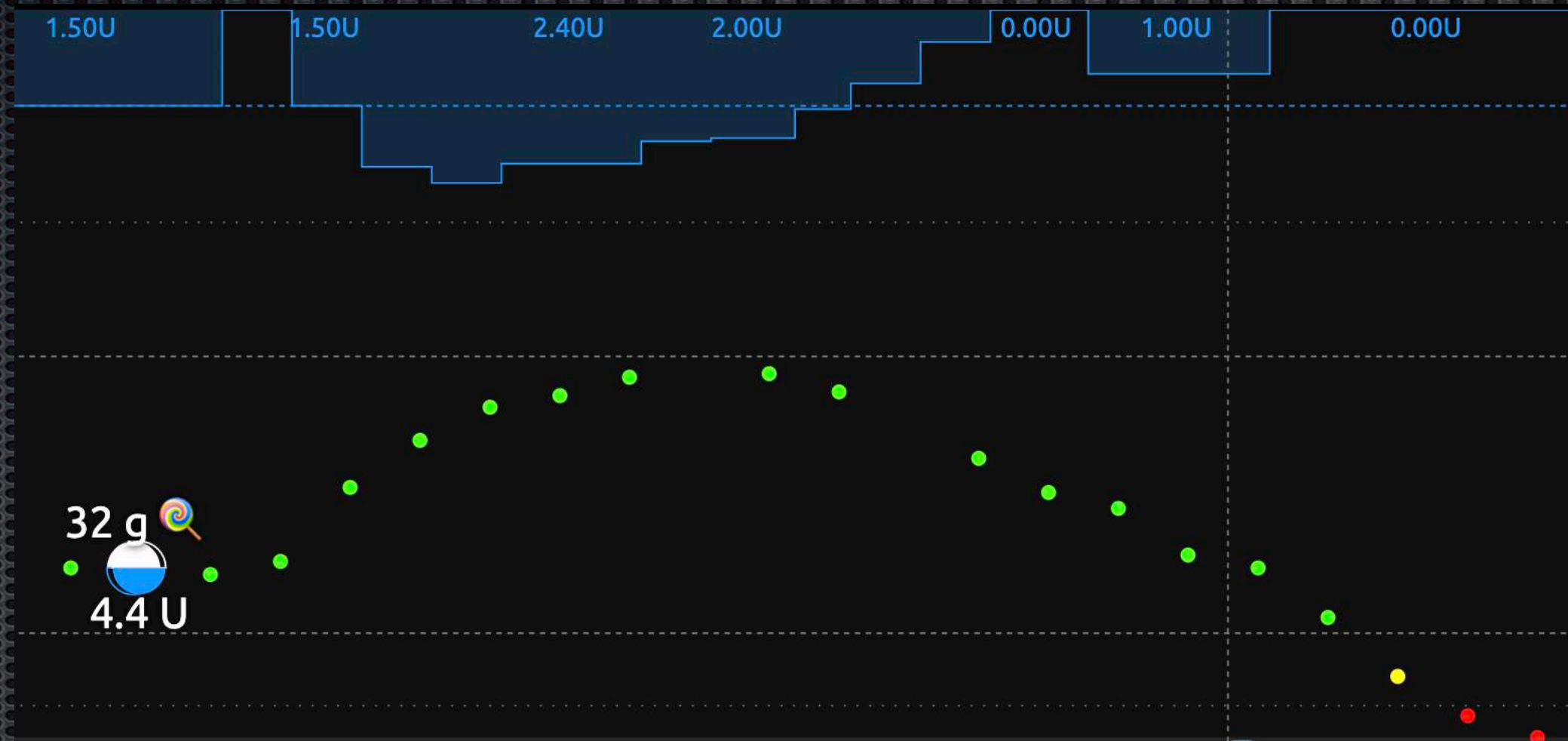
ISF Fine Tuning



Basal Fine Tuning

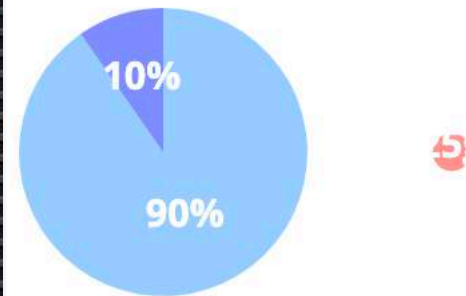


Carb Ratio Fine Tuning

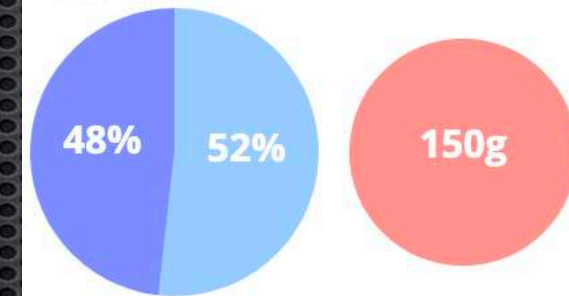


Fine Tuning

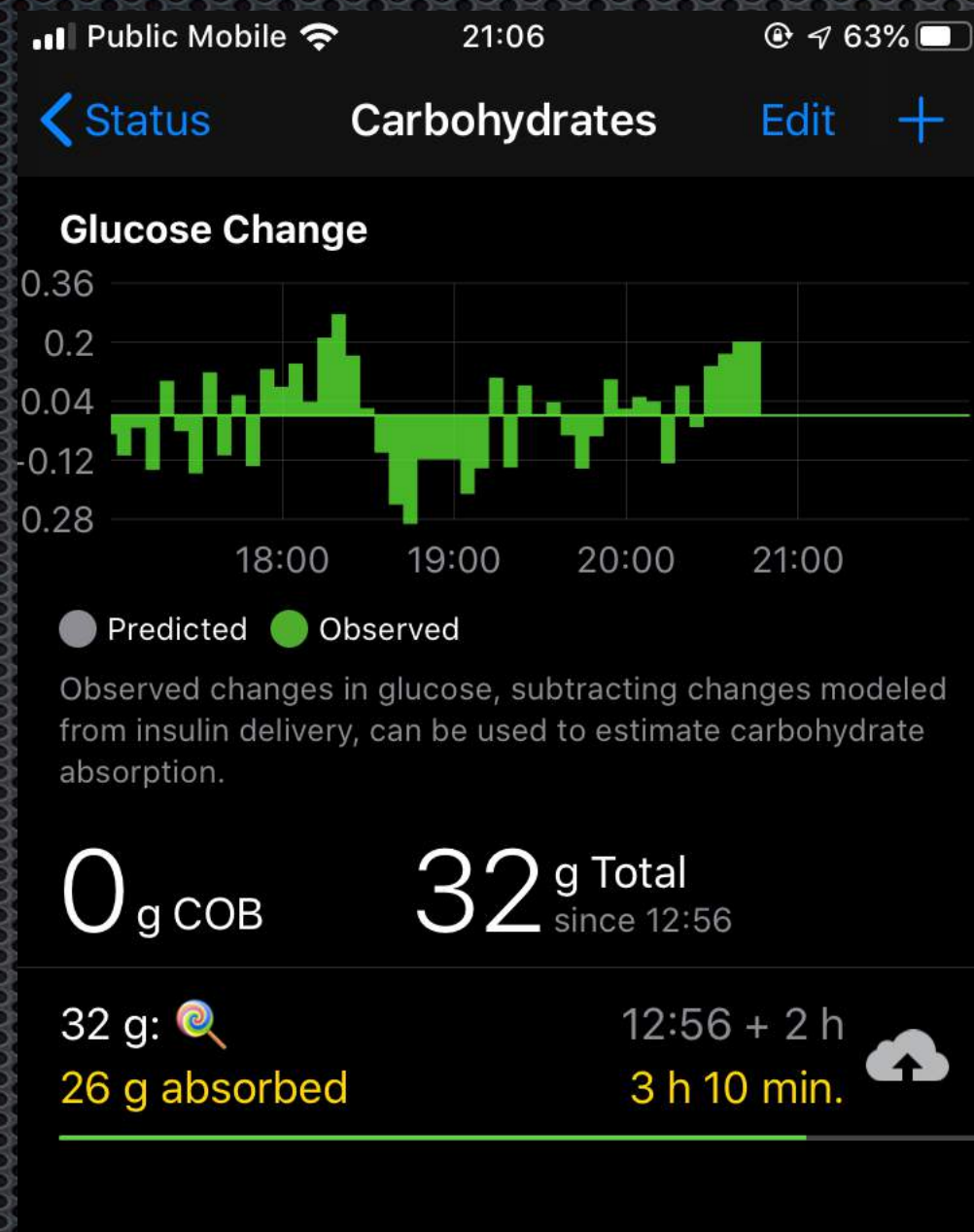
Bolus insulin:	3.5U
Base basal insulin:	34.1U
Positive temp basal insulin:	2.4U
Negative temp basal insulin:	-3.9U
Total basal insulin:	32.7U
Total daily insulin:	36.2U
Total carbs:	25 g
Total protein:	0 g
Total fat:	0 g



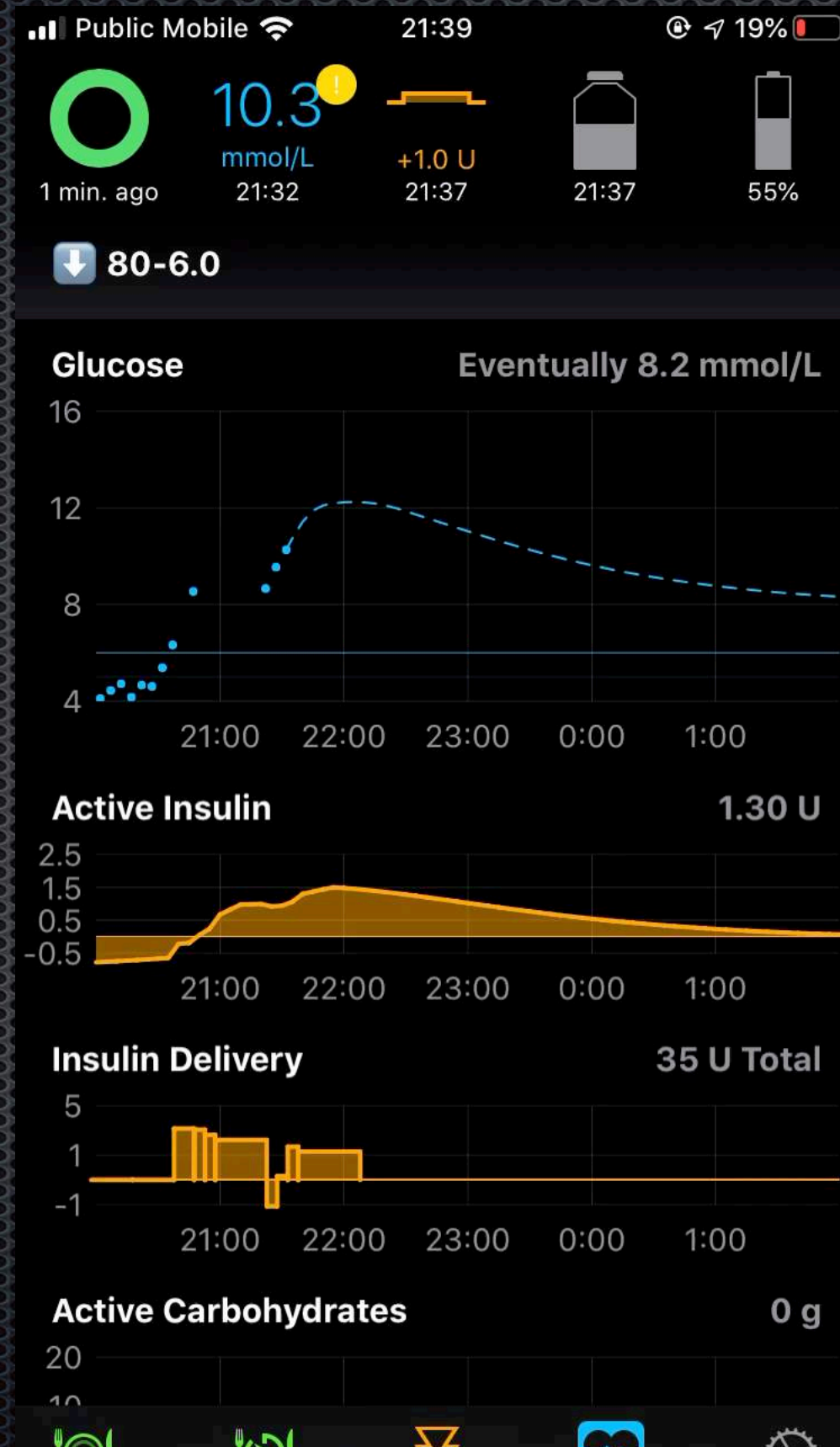
Bolus insulin:	27.6U
Base basal insulin:	34.1U
Positive temp basal insulin:	7.3U
Negative temp basal insulin:	-11.8U
Total basal insulin:	29.6U
Total daily insulin:	57.2U
Total carbs:	150 g
Total protein:	0 g
Total fat:	0 g



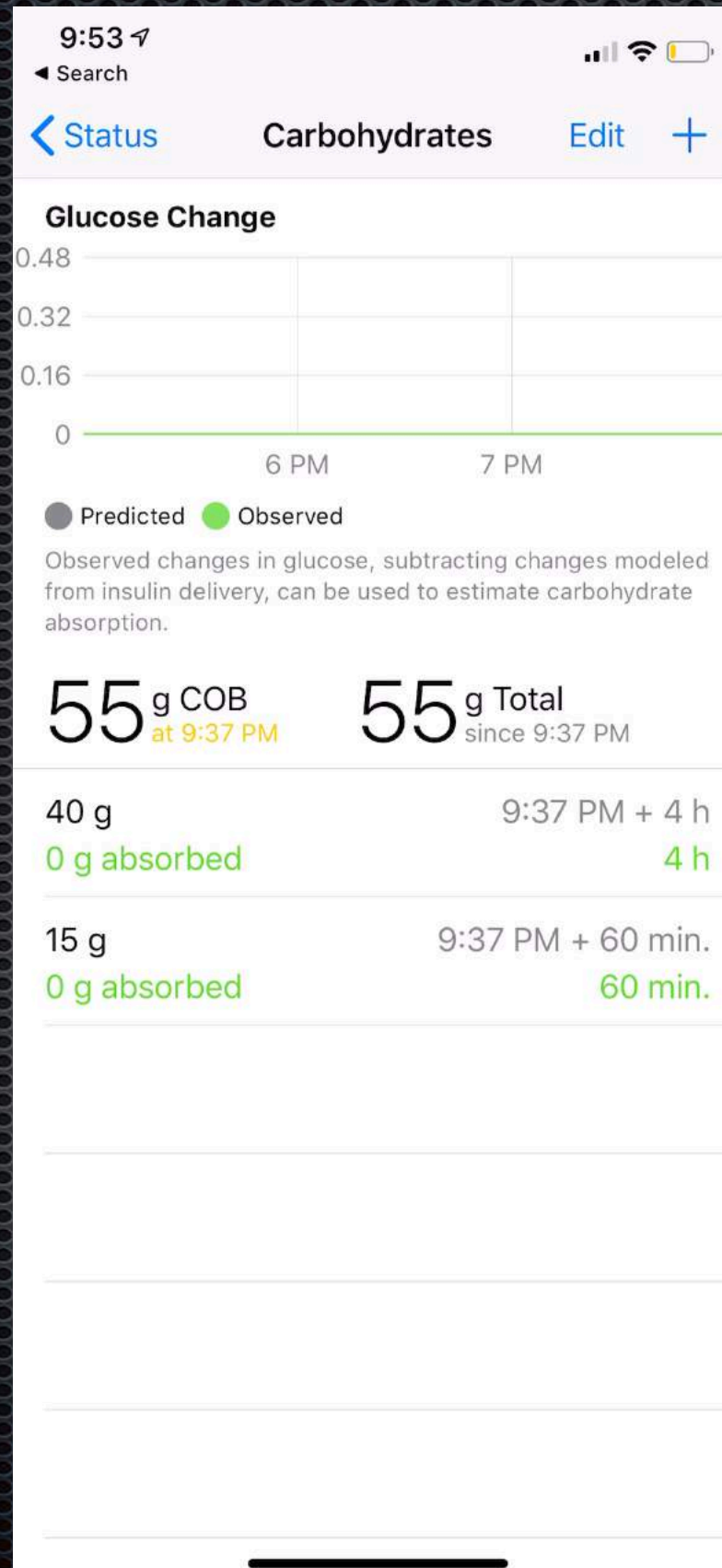
Fine Tuning



Complex Bolusing



Modify Carbs



Low Treatments

Less glucose



If you log the low

Higher Target



Stuck High

Lower Target



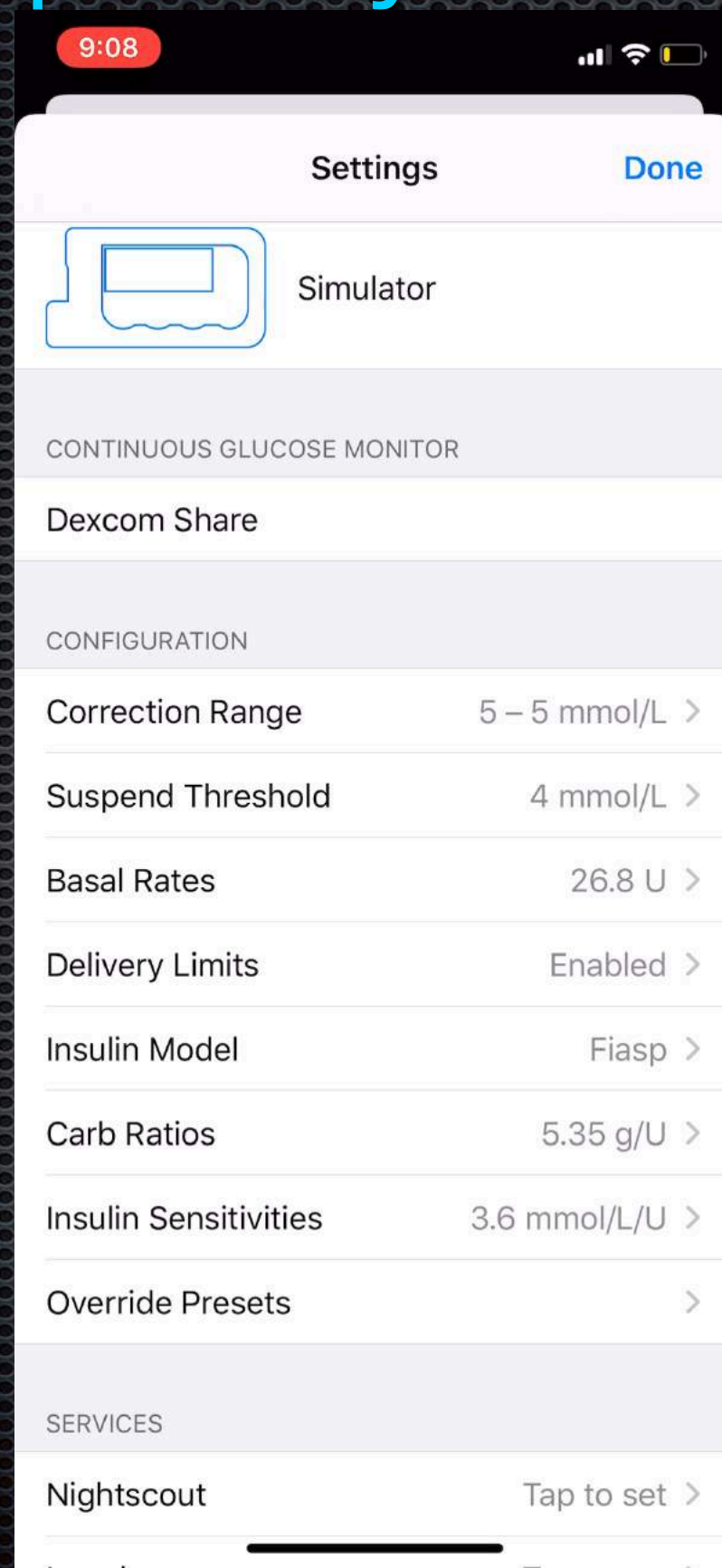
Give Pending Insulin



Fake Carbs




Temporary Overrides



Temporary Overrides

- Set higher or lower targets for pump
- Set overrides for ISF, Basal & CR based on percentage
- Expire at a pre-set time
- Higher target used instead of lowering temp basal before exercise
- Lower target used when no pre-bolus



Log a Treatment

Event Type: Temporary Override

Reason: Lows
 Excercise
 Soccer practice
 High Blood Sugar
 After Soccer
 High Blood Sugar

Duration:

Additional Notes, Comments:

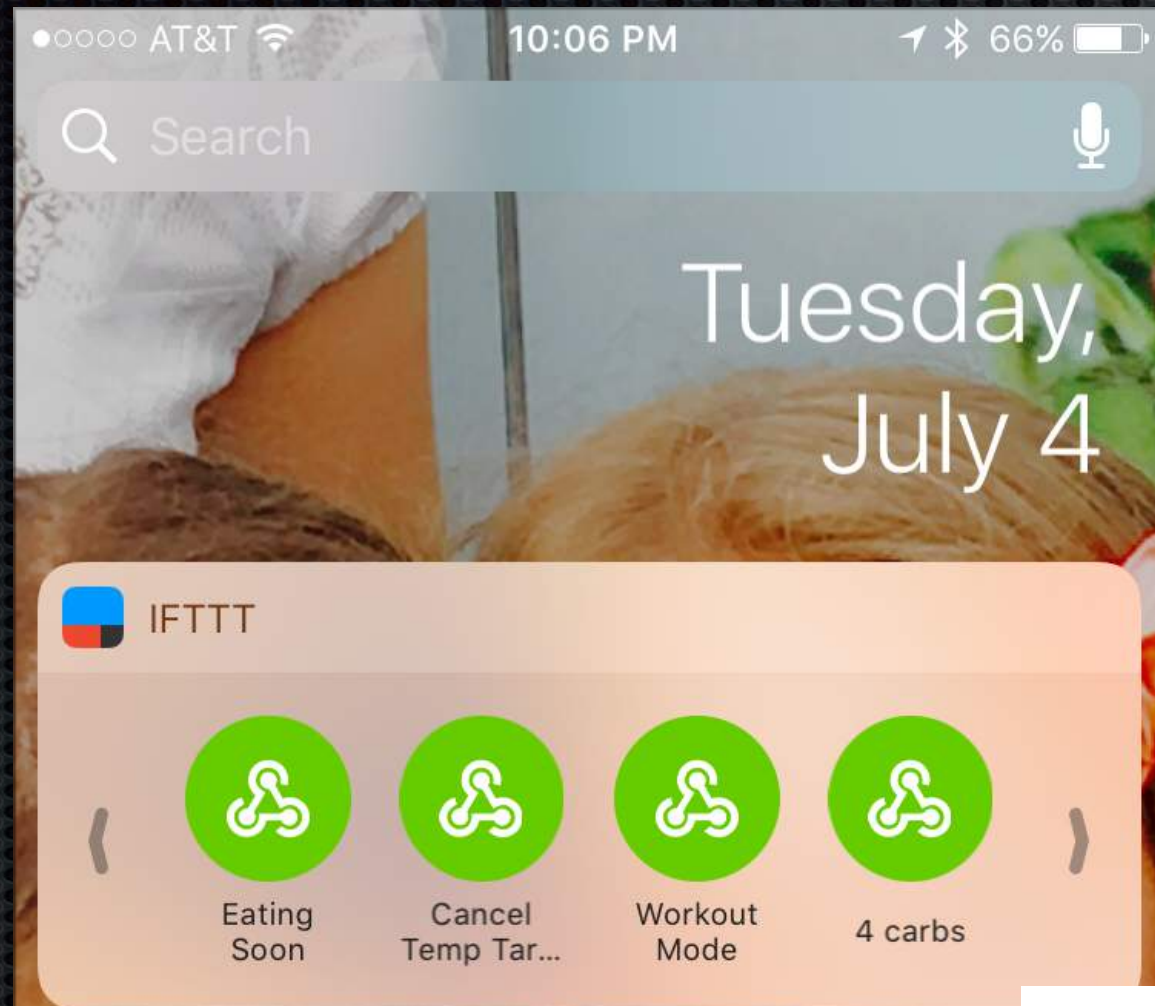
Entered By:

Event Time: Now Other

2019-11-08 08:54 PM

Submit Form

If This Then That



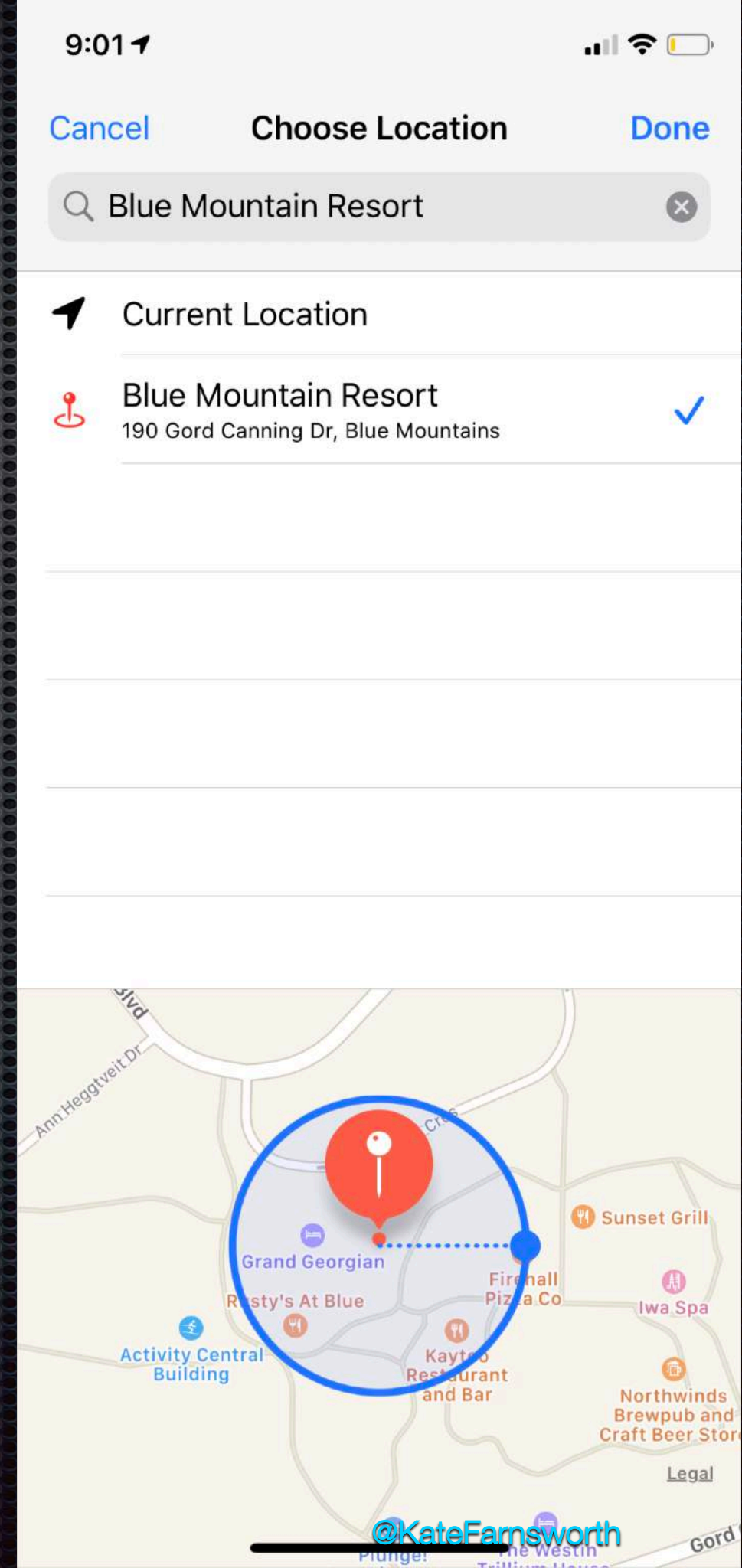
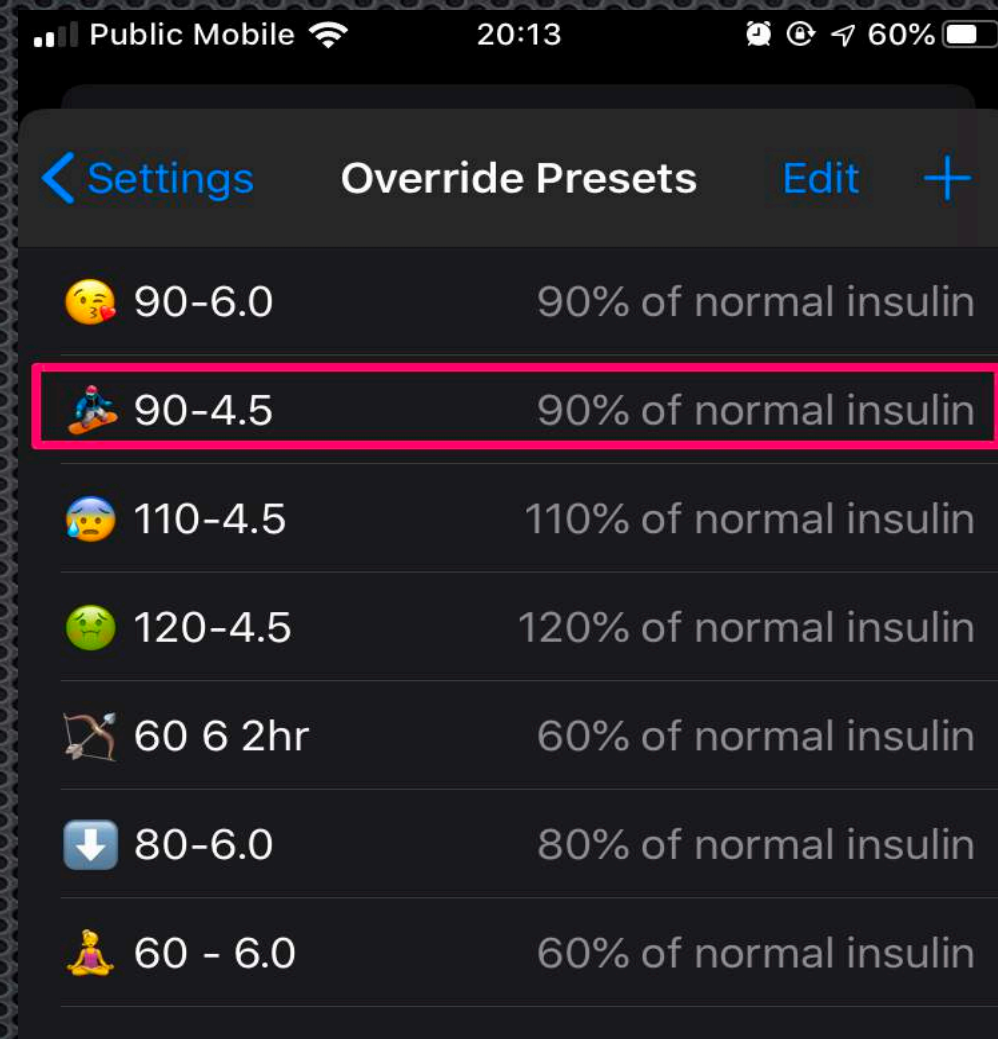
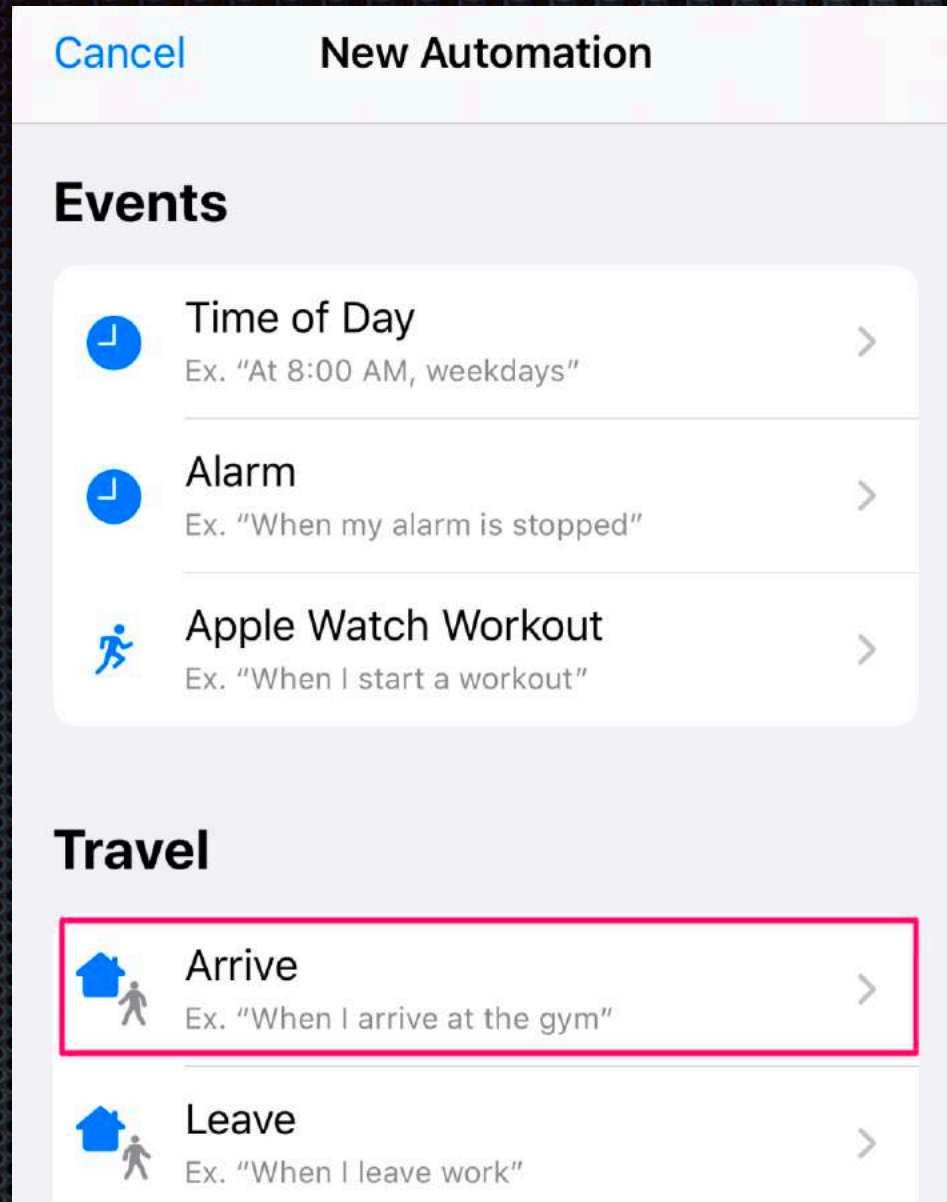
- Set temporary targets with one button
- Log Nightscout careportal entries
- Schedule items

If  **Then**  **That**

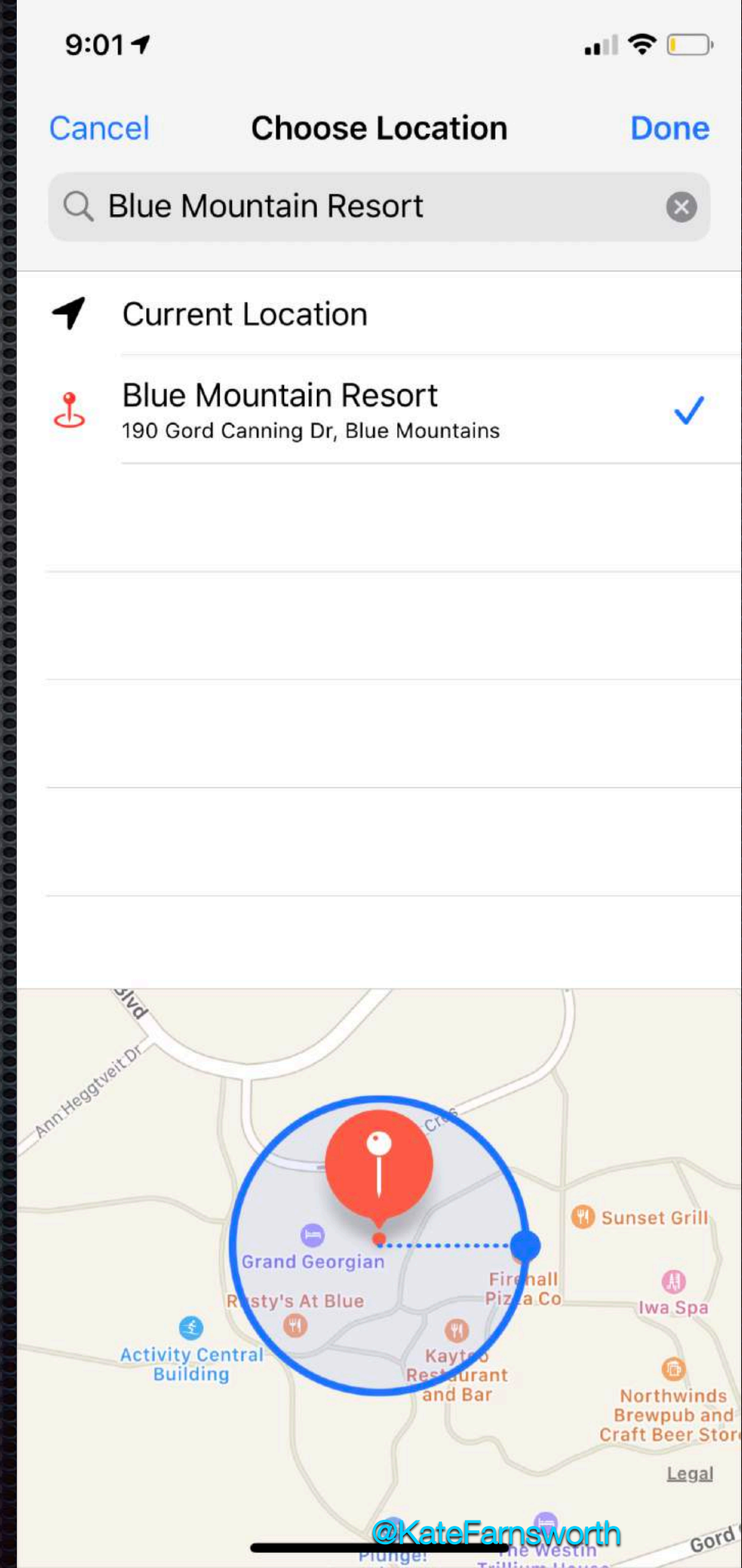
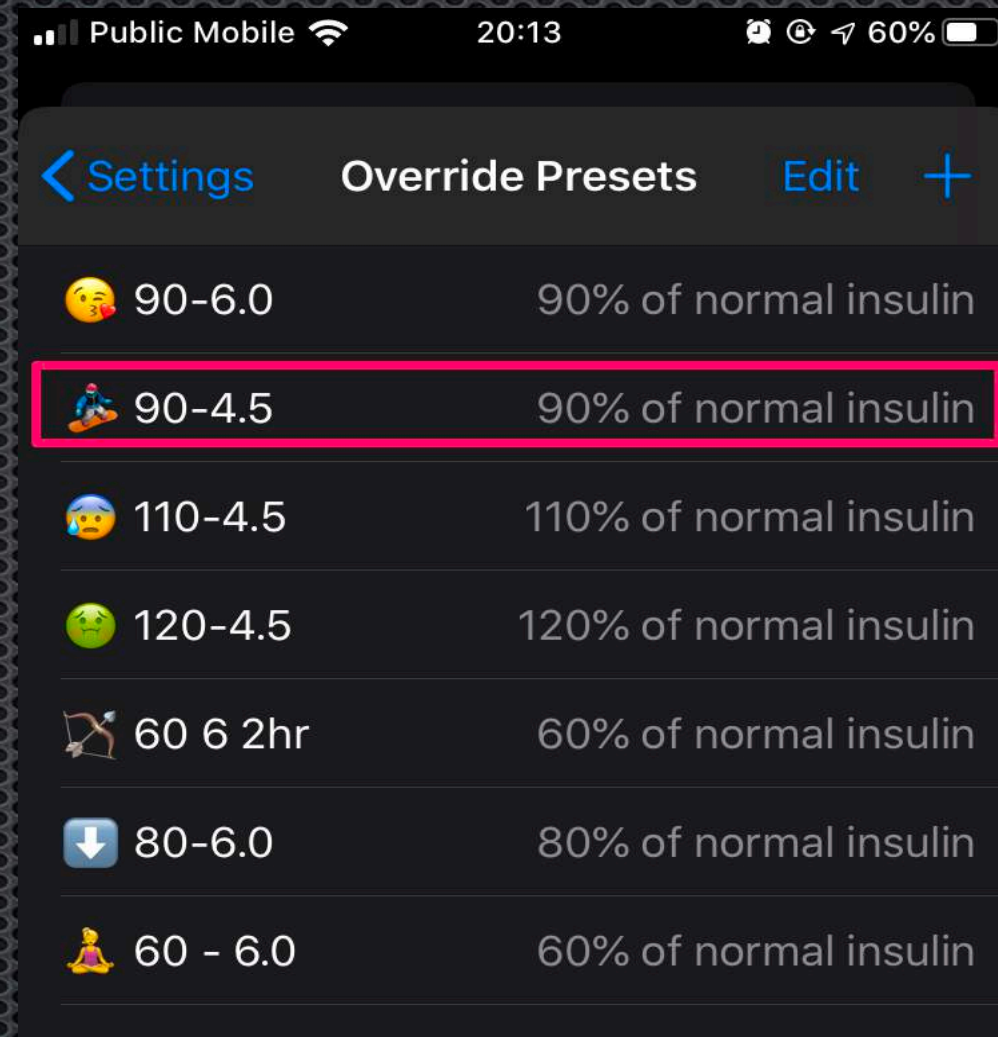
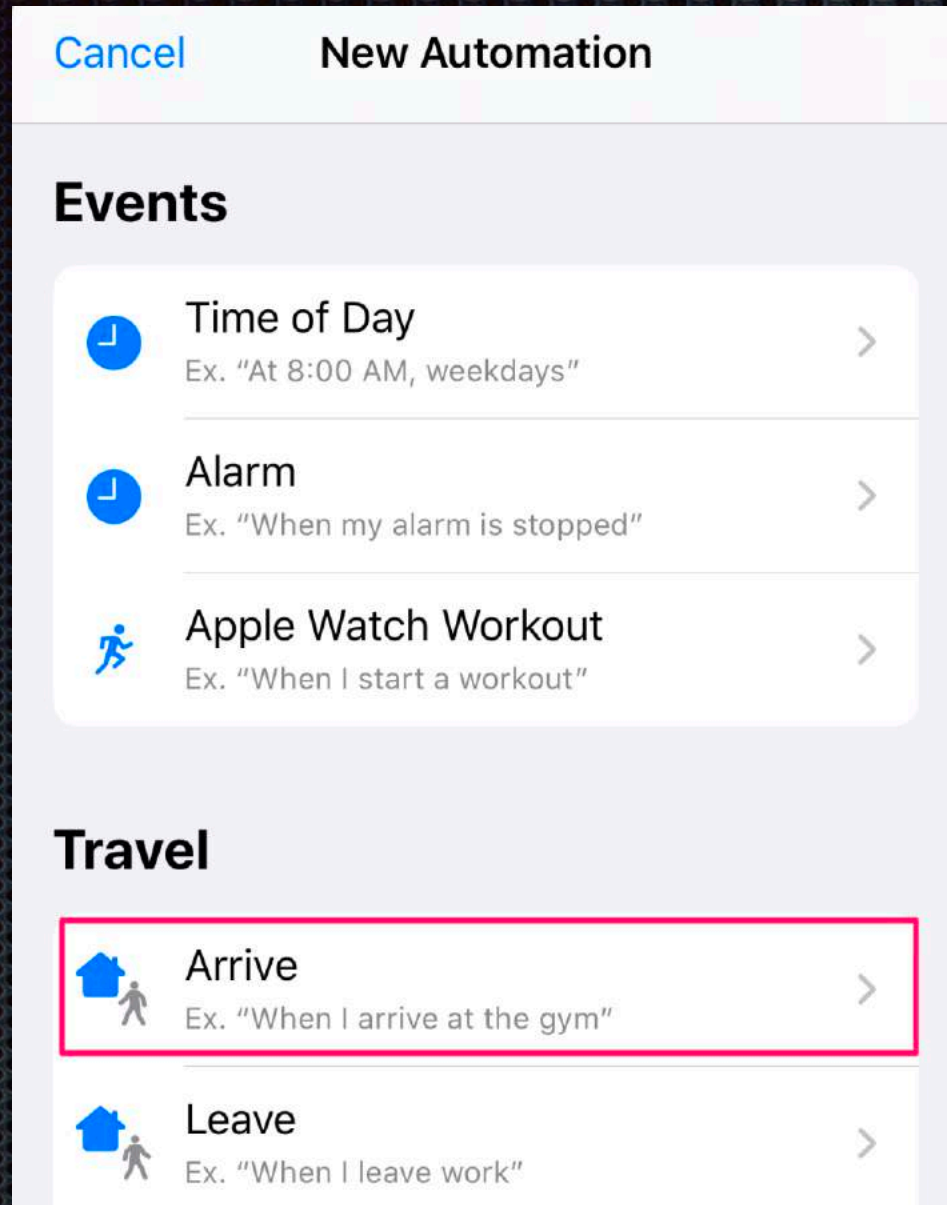
Overrides Based On Location



Overrides Based On Location




Overrides Based On Location



Overrides Automation


Events

- Time of Day
Ex. "At 8:00 AM, weekdays"
- Alarm**
Ex. "When my alarm is stopped"
- Apple Watch Workout
Ex. "When I start a workout"

Symbol 

Name TEEN ZOMBIE WAKE-UP

Overall Insulin Needs 120%



Basal, bolus, and correction insulin dose amounts are increased by 20%.

Target Range 3.9 – 3.9 mmol/L


Enable Indefinitely

Duration 1 hr.

Overrides Automation


Events

- Time of Day
Ex. "At 8:00 AM, weekdays"
- Alarm
Ex. "When my alarm is stopped"
- Apple Watch Workout**
Ex. "When I start a workout"

Symbol 

Name RUNNING

Overall Insulin Needs 60%

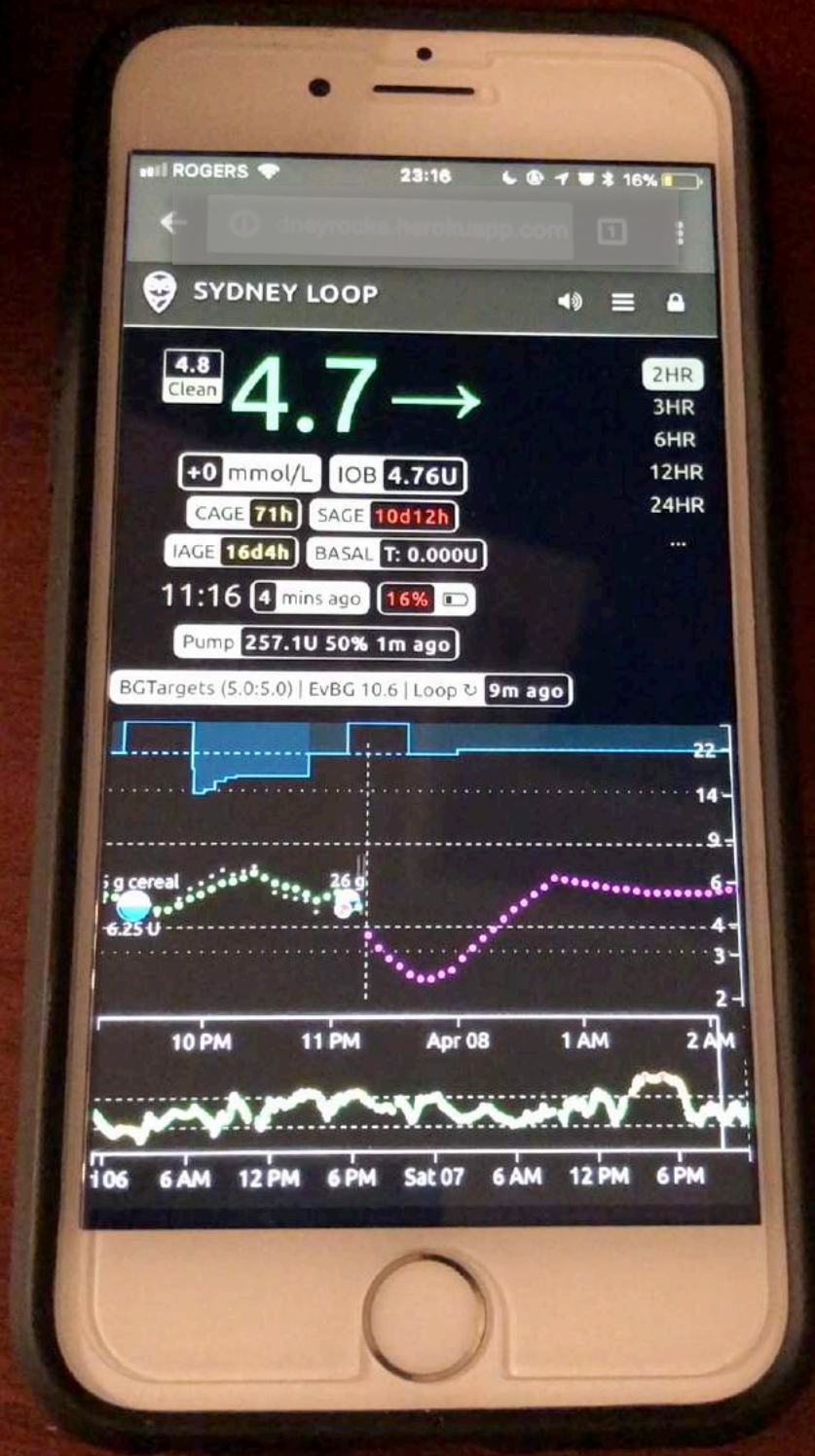


Basal, bolus, and correction insulin dose amounts are decreased by 40%.

Target Range 8 – 8 mmol/L

Enable Indefinitely

Duration 2 hrs.



What to do if things go wrong



Paying It Forward

