

Install Guides

Please read through the install guide before you proceed to setup your system.

There is no support or any warranty of any kind. The quality and performance of the project is with you. This is a project that was created and is supported completely by volunteers.

DISCLAIMER

All information, thought, and code described here is intended for informational and educational purposes only. Use of code from github.com is without warranty or support of any kind.

Each element of the system can fail at any time rendering the system unusable. There is no password protected privacy or security provided by these tools; all data you upload can be available for anyone on the internet to read if they have your specific URL to view your data. Please review the LICENSE found within each repository for further details. This is not a project of the Dexcom company. Nightscout has no affiliation with Dexcom.

Do not use any of the Nightscout information or code to make medical decisions.

Is This Project For Me?

No programming experience is required, but there are several caveats to be aware of:

- Installation can take anywhere from 30 minutes up to several hours, but it can be done incrementally at your own pace (you do not have to do it start-to-finish once you begin).
- Data may go missing without warning
- Data may be absent
- Data may be wrong
- Data may be delayed
- Data systems can and will go offline making your system inoperable
- You may void your warranty
- You may break something

For all these reasons and more, it is important you carefully consider whether or not this project is right for you. The best way to prepare yourself for a project of this nature is to:

- Follow the the installation guides and videos *carefully*
- Be comfortable configuring and installing your own system

Having this understanding will prepare you to get help from the entire community quickly. There is a community on [Facebook](#) with members who are parents of children with T1, partners of T1, and people with T1 from all experience levels who will help you get up to speed on understanding and installing this tool. Some may be able to help you experiment with new features or different deployment techniques. All of these individuals are volunteers. No one is getting paid to provide support for the Nightscout project. Every person offering suggestions to resolve any issues you may encounter is a volunteer offering solutions they've learned through personal experience with setting up their own Rig.

Before you post for help, make sure you have tried to find the solution by walking through the support guide: <http://support.nightscout.info> NOTE THE ERROR CODE YOU RECEIVE.

If you need help, be prepared to describe the issue you are having completely (what you were doing at the moment you had an issue, what you were doing before you saw the problem) along with screen shots of the errors or screens you are stuck on and the error code you received.

Only post your request for help ONCE with a new post on the Facebook group. If you are not getting any responses, bump your post to the top of the page with a response to your own post. You will receive a LOT of suggestions for solving the problem.

What Is Required?

Note: Any smartphone or device (iPhone, tablet, iPad, kindle, PC, iMac, etc) that can access the internet to see webpages can access and view the CGM data of the person you are following.



Photo by Mandy Daubenmier Tiech

The following items are the **minimum requirements** to install and run the system. These are the **absolute minimum pieces** needed; adding optional items (listed below) will customize your system to fit your lifestyle.

1. **Dexcom G4 receiver (also referred to as “Platinum” in the US).** The receiver will stay within the same proximity to the sensor (near the T1 wearing it) as normal.
2. **Android smartphone supporting USB OTG support** (The Moto G is currently the most commonly purchased phone for Nightscout use due to its low price). [Follow this link](#) for a list of other phones that have been identified as compatible. The phone you choose is used only to transmit data from the receiver to the cloud. It has no other purpose. **Note:** USB OTG support is required on this phone AND Android v4.x or newer. The system will not work if the phone does not have OTG or does not have the correct version of the Android operating system.
3. **USB OTG cable** that connects the smartphone to the Dexcom receiver. It allows the [smartphone to read the data on the Dexcom \(click to see the video\)](#).
4. **Micro-USB to USB Male cable** to go from your Dexcom to the OTG cable. The Dex power cord that you already have is a Micro-USB to USB Male cable and can be used from the Dex- to -OTG part of the cabling. **The Dexcom USB port is fragile and can break if you are not very very careful with this cable at all times.**
5. **Wifi**
6. **Free software** installed and databases created to store and read the data. These are free and are required as part of the installation process. These include:
 - *Cloud-based database system through Mongolabs.com. You do not need to know anything about database technology or even what a database is to handle this step. The setup instructions are easy to follow.*
 - *Web hosting service through azurewebsites.net. Again, you do not need to know anything about this technology. The setup instructions will walk you through it all.*
 - *A free app installed to your uploader device so that it can send the data to the database.*

Warning: the Dexcom port (the charging port that is covered by the slider) is extremely fragile. When you put the Nightscout cable into that port, you will need to secure it to keep it from jostling or being knocked out. The port can be dislodged easily. You can secure with tape or other substance. You can obtain a case made for the Nightscout rigs (search in the Facebook group for how to obtain one). Use extreme caution whenever unplugging from this port as well.

Optional Add-ons

The following items are **optional**, but will extend and improve your experience with the Nightscout system.

- Cell data plan for the smartphone to stay connected to the cloud when you are out-of-range of Wifi. When you are out of range of wifi your system cannot upload the glucose data to the database. Ting is a popular data-only plan with a low monthly cost of approximately \$9. Check the Ting website to make sure there is data coverage in your geographical area.
- A second Dexcom receiver so the first receiver does not have to be unplugged from the phone often, if ever. The 2nd receiver can stay in a pocket or other convenient place to see the readings without having to unplug from your system. Two receivers are easily setup to read the same sensor/transmitter (part of the Dexcom features.) (STRONGLY RECOMMENDED, NOT REQUIRED)
- A second smartphone or other uploader device to hook up to the receiver while the first one is charging.
- Extra OTG cables in case the primary cable fails (HIGHLY RECOMMENDED)

- An easy to transport case to store the Receiver and Smartphone while they are connected. This will protect the rig while the T1 is at school, work, or other activity. The USB port on the Receiver is extremely fragile. Allowing it to be jostled too often can break it. Having a reinforced case of some kind will help keep the receiver out of harm's way. (HIGHLY RECOMMENDED)
- Pebble, an internet-connected "watch" device. This is an unobtrusive way to have a quick and handy view of the T1's glucose level along with other indicators about the system status.

How Do I Know Exactly What to Buy?

Phone: Your uploader phone MUST be OTG capable and it MUST be an Android with OS v4.0 or newer. You must consider what your main goals are and select equipment and cell service to minimize hassle. If budget is of primary importance, consider the least expensive cell phone. To date this has been the Boost MotoG phone found on sale at Target stores, but it may not work in your area. It only works on the Ting (which is Sprint) networks.

Cable: You generally will need a USB On-the-Go cable that matches your phone, and a micro-USB to USB Male cable to go from your Dexcom to the OTG cable. Remember: the Dex power cord is a Micro-USB to USB Male cable and can be used from the Dex- to -OTG part of the cabling.

Verify that the cable you choose will work with the phone/uploader that you are considering. Some phones/uploaders have two ports – one that the OTG cable fits into and another that you can charge the device at the same time. Making sure your OTG cable does not cover the charging port is something you must consider.

There is also an all-in-one cable that can connect directly from the uploader device (OTG end of the cable) into the Dexcom port.

Both the 2-cable system and the all-in-one cable configurations are perfectly fine.

The OTG cables can be found at specialty computer supply stores such as Fry's and MicroCenter or through Amazon and other on-line sellers. Keep in mind that many sales people are not familiar with OTG and may not understand what you are looking for. You need to verify the cable is OTG by studying the packaging. Look for packaging descriptions like the ones here.





Case: The case you choose is completely up to you. You want to make sure the rig will fit inside the case without putting pressure on the Dexcom port/cable connection.

Some cases being used by others include Otterboxes, fly-fishing tackle boxes, Vera Wang bags, clear plastic zip-bags from the Container store and other cases from various sources. It all depends on the durability you require and the wishes of your T1D.

Best advice: *shop around and compare prices & features for your own needs.*

What Does All This Cost?

Set-up Costs (one-time)

- Android uploader phone: approximately \$100
- Cables to connect Dex to uploader: approximately \$5 each/ \$10 for two.
- Mongolab Database: \$0 (free)

Recurring costs:

- Azure website: \$0-\$1.00 per month.
- Cell/Data package: Ting.com is \$0-\$9 per month (if you have Sprint coverage in your area, you will have Ting availability). Adding the uploader phone to your personal cell phone plan can be anywhere from \$10-\$100 per month depending on your plan's requirements.

Minimum cost: \$105 for set-up (first month), \$0-9 per month for following months.

Optional Costs

If you choose to add on a second uploader device, you can choose between a host of devices to fit your needs such as

- a tablet to act as an overnight uploader (it doesn't have to be portable during night-time) for as little as \$35 .
- another cell phone: \$100

Other devices that can enhance your use of Nightscout, but are not required:

- A Pebble device, adds \$150 to the one-time costs. They can be purchased for less through various sales, E-bay, Amazon, etc.
- Waterproof or crush-resistant case for the rig: \$0-\$100

- 2nd Dexcom receiver for back-up: \$199-\$600 depending on your insurance coverage and whether or not the prescription is current for the CGM and whether your current Dexcom receiver is still under warranty.

Once you've gathered the necessary equipment for your setup, you are ready to start installation.

Now you know how the system works, and the pieces involved. Ready to build your Nightscout rig? The steps below will get you up and running on your own DIY Nightscout installation. Each step builds on the last, and walks through the process creating your own Nightscout Rig.

TAKE YOUR TIME AND FOLLOW THE BELOW STEPS, IN ORDER, AND YOU WILL BE SUCCESSFUL YOU CAN DO THIS!!

The basic steps are:

1. Read the full instructions so you know where you're headed.
2. Assemble supplies to create a full Nightscout rig.
3. [Create a database on the web to act as a repository for your CGM data \(Mongolab\).](#)
4. [Install an app on an Android phone to download data from the CGM and upload it to the database.](#)
5. [Create a website to display your CGM data \(Azure\).](#)
6. [Optionally install a watchface on a Pebble smart watch to display the data on your wrist.](#)

You *can* do this. These guides are built to help you do it, and you can always ask for more help in the [Forums](#).

ONE FINAL DISCLAIMER

All information, thought, and code described here is intended for informational and educational purposes only. Use of code from github.com is without warranty or support of any kind. Please review the LICENSE found within each repository for further details. **Do not use the information or code to make medical decisions.**

[Guides](#) > [Setup Guides](#) > Configuring the Data Backend on Mongolab

There is a video of this step available here: <http://youtu.be/dPXURXvIzYM>

There's a lot going on in this step, so it might be a good idea to copy and paste this text into Word or someplace you can print it out, then you can fill it in as you go.

For ease of use, consider using the same name for every username.

Username and Passwords cannot contain ANY symbols or special characters. Use Upper and Lower case alpha characters only.

This list is not in the same order as the steps for creating your account.

```
Account Name: _____

Username: _____

E-mail: _____

Password: _____ (it is case sensitive)

Cloud Provider: _____ (e.g. Microsoft Azure)

Plan: Single-node (development), Sandbox

New Database Name: _____ (e.g. nstestdb)

Database Username: _____ (e.g. NSTest)

Database User Password: _____ (e.g. NSTest1) it CANNOT contain any special characters
```

Collection Name: _____ (e.g. CGM)

SIGN UP FOR MONGOLAB.COM

Sign up for a **FREE** Sandbox account at <http://www.mongolab.com/plans>.

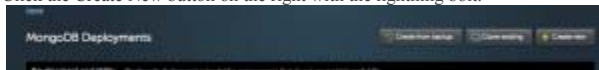


Open your e-mail to verify your e-mail address.

Sign back in to the Mongolab web page.

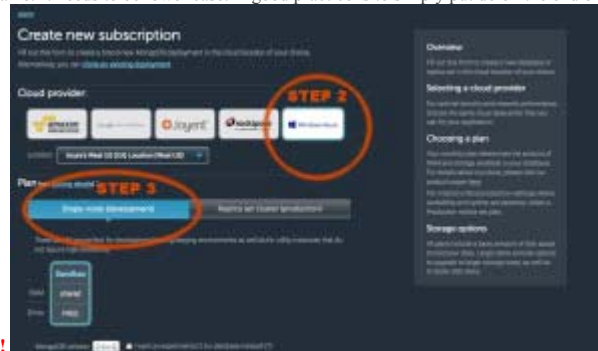
CREATE A NEW MONGOLAB DATABASE

1. Click the Create New button on the right with the lightning bolt.



2. On the Mongolab Create page, you should choose from **Amazon, Rackspace or Azure**. These are 3 of the top hosting providers. We recommend you choose **Amazon or Rackspace**, as your web site is going to be hosted on **Azure**. In the rare even that Azure goes down, your databases won't be affected at the same time as your website. Having the 2 separated could makes it easier to determine if and where an outage may be occurring.
3. Change the Plan to Single-Node Development to use the free option. This will entitle you to half a gig of data, which should last over 5 years with the current Nightscout setup. The region selection will automatically switch to Western US – that is where the Sandbox is located – NOT where you are located.

- Finally enter a database name. It needs to be lower case. A good practice is to simply put db on the end of your username, but it's entirely up to



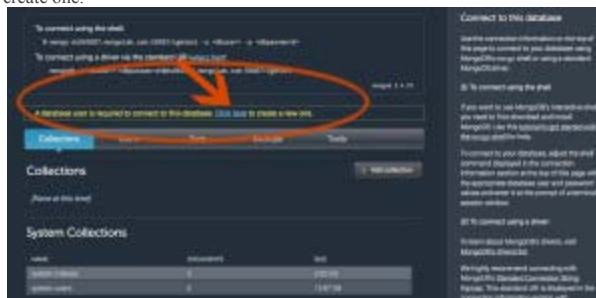
you. **WRITE IT DOWN!**



- Click the Create new MongoDB Deployment button.

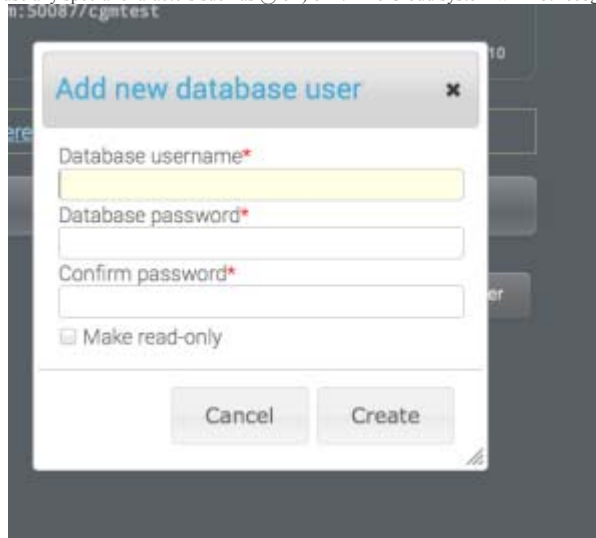
CREATE A USER AND COLLECTION INSIDE YOUR MONGOLAB DATABASE

- Click on the **name** of the newly created database to open it. Mongo will show you an alert that you do not have a user and show you a link so you can create one.



- Click the link to open the Add new database user dialog.

3. Enter a database username and password here and click the **Create** button. **You'll need these values later to complete the MongoLab URI string so *don't forget to write them down!*** Do not use any special characters such as @ or) or ^ . The Cloud system will not recognize these special characters. Use

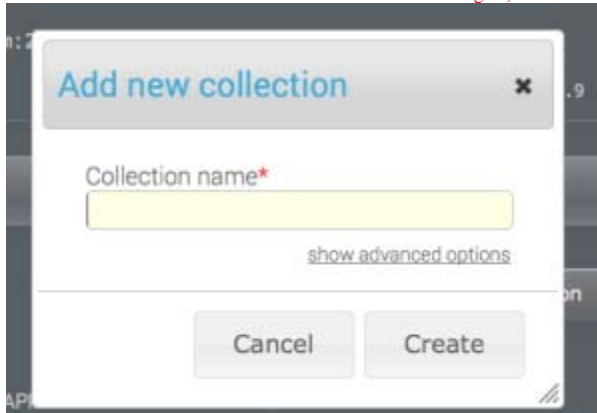


Upper and Lowercase alpha ONLY.

4. Scroll up and click the Collections button near the left to open the Collections page.

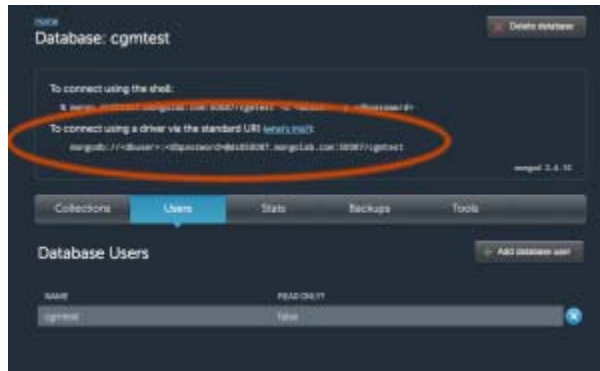


5. Click the Add Collection button and enter a collection name. **Again, *write it down.***



RECORD YOUR MONGO COLLECTION STRINGS

Once all has been configured, on the **Database summary** page, copy the link under **To connect using a driver via the standard URI**, as this will be used to configure both the Android App and the Azure web server that will display your data. **If this information is not entered correctly, your system will fail to work,**



Copy and paste this string into a Notepad document. You will use it several times as you go forward. It will look something like these examples:

Generic URI code:

```
mongodb://<dbuser>:<password>aabb22.mongolab.com:11111/<database>
```

Changed with person's information:

```
mongodb://sallyuser:sallypassword@aabb22.mongolab.com:11111/nightscout
```

Replace <user> and <password> (delete <>) with the DB Username in step 3 above. **THIS MUST BE EXACTLY THE SAME AS THE DATABASE USERNAME & PASSWORD YOU CREATED ABOVE!**

Replace <database> with the name of the database that you created in step 2 above.

Make sure you proof it several times!

- There will be a colon (:) between username and password.
- There is another colon (:) between .com and the numeric string at the end
- There is one "at" symbol (@) following the password
- There is one forward slash (/) before the database name.

It is crucial that this string and collection name are absolutely correct or your rig will not work. Absolutely will not work.

Once you have verified that the string and collection are absolutely correct and typed into Notepad (DO NOT USE MSWORD FOR THIS) you can move on to the next steps.

Make sure you have easy access to your Mongo URI connection string and collection for the following pages.

You are now finished setting up your MongoLab account. On to the next step!

There is a YouTube video corresponding to this step: <http://youtu.be/BkOPn8GhOeo>

In this step, you're setting up the Android phone to act as an uploader from your Dexcom G4 to Mongolab, the database in the cloud where CGM data will be stored. The basic steps are:

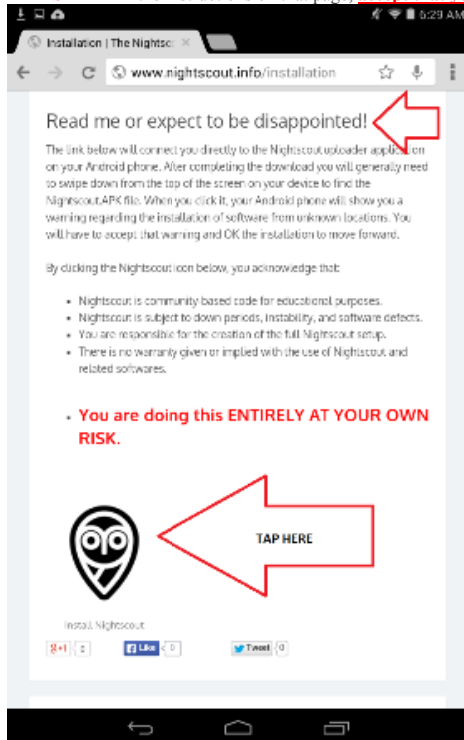
1. Installing Nightscout on your phone.
2. Configuring the uploader application using the Mongolab connection strings.

If you have not completed the setup of Mongolab, and do not have your connection strings written down where you can easily find them, go back!

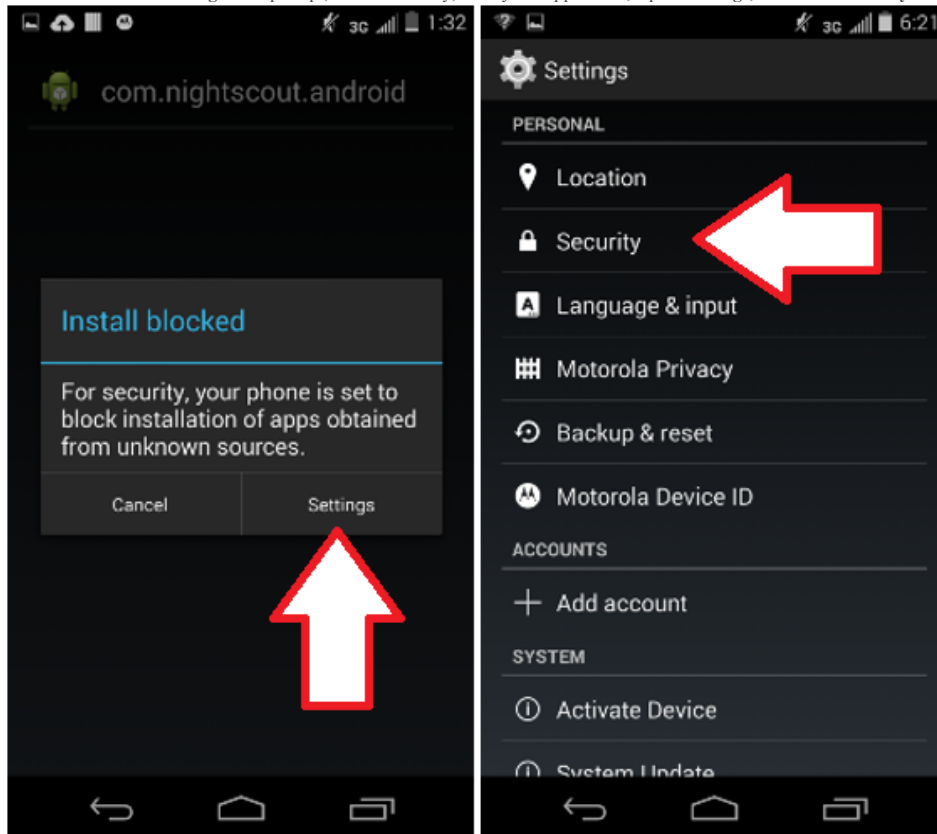
1. Installing Nightscout on Your Phone

On your Android Phone

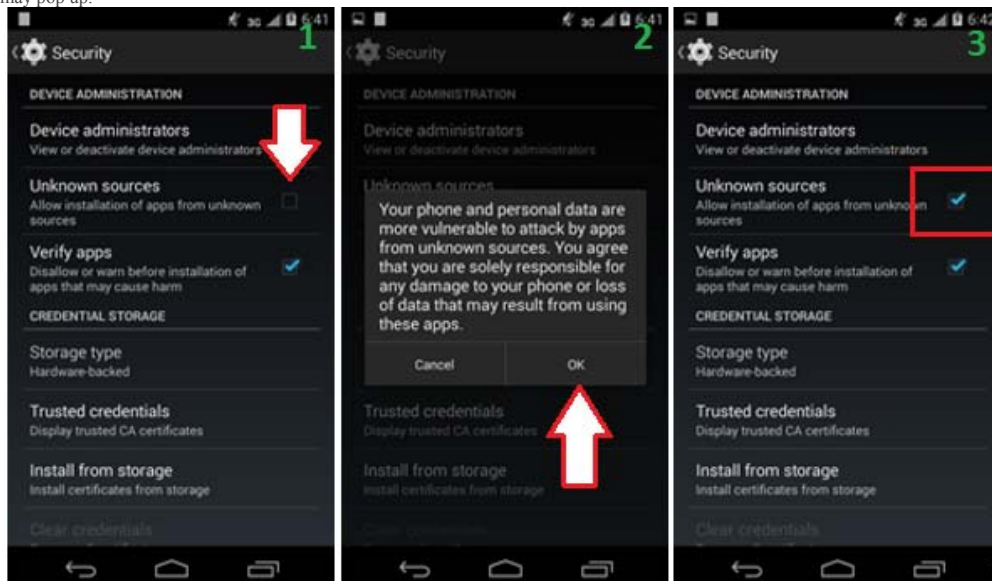
1. Connect to the network via wifi or your cell connection
2. Open up a browser and navigate to **install.nightscout.info** You must type this in on the Android, or this will not work!
3. **PLEASE READ** the instructions on that page, **accept that you are doing this of your own risk**, and tap the Nightscout icon to download the APK file.



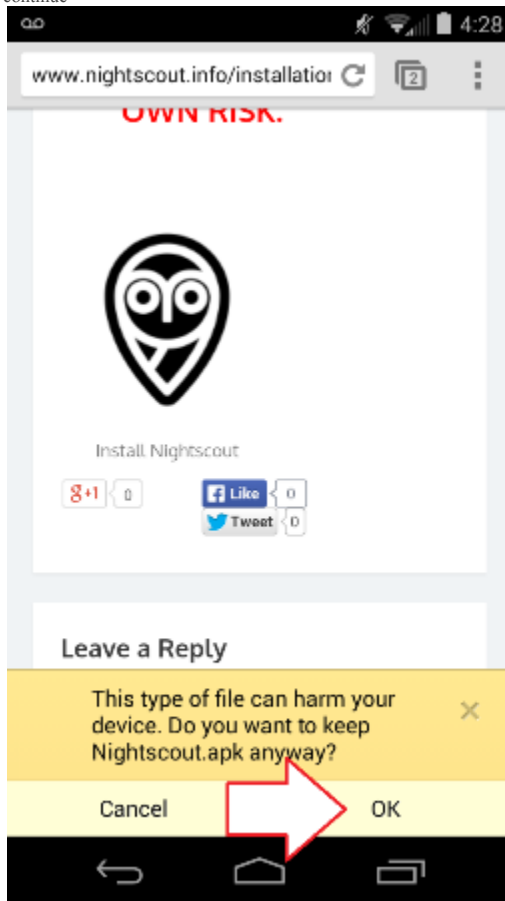
4. If you see a warning, like 'Install Blocked' similar to below, you need to adjust your devices security settings to allow installation from unknown sources. Click on the **Settings** from prompt, or alternatively, from your Apps menu, tap on **Settings**, then select **Security**.



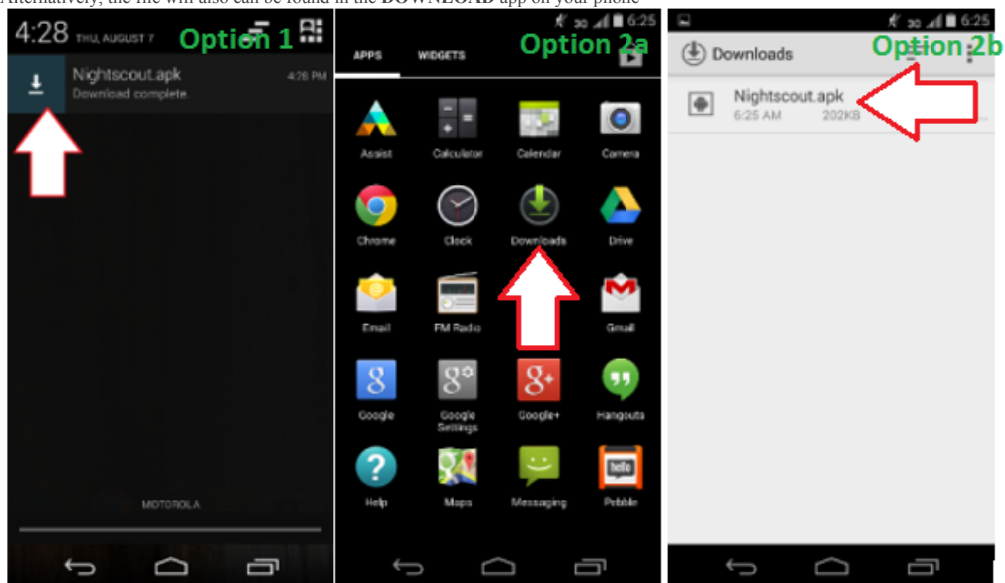
5. On the **Security** page, scroll down to **Device Administration**, tap the box to the right of 'Unknown Sources' to select, and tap **OK** to a warning that may pop up.



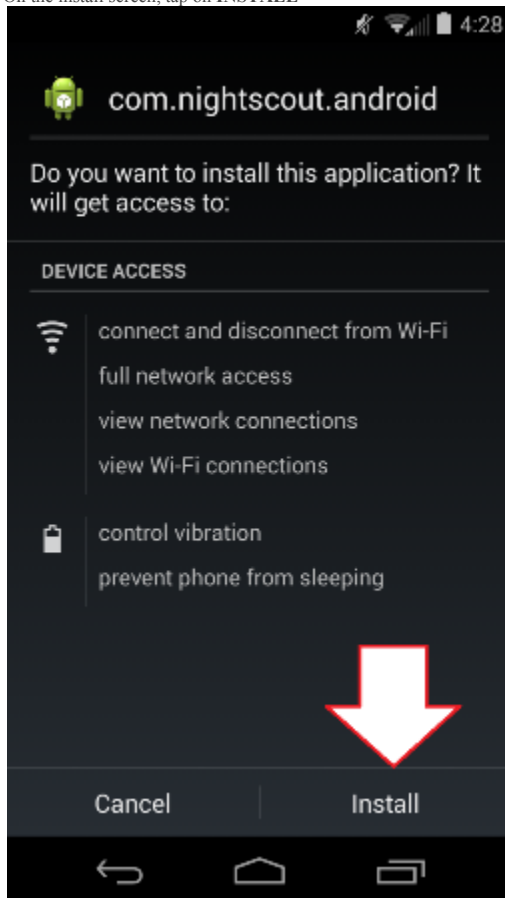
6. Go Back to your browser, and go to install.nightscout.info and try the install again. At this point you may get the following warning. Tap **OK** and continue



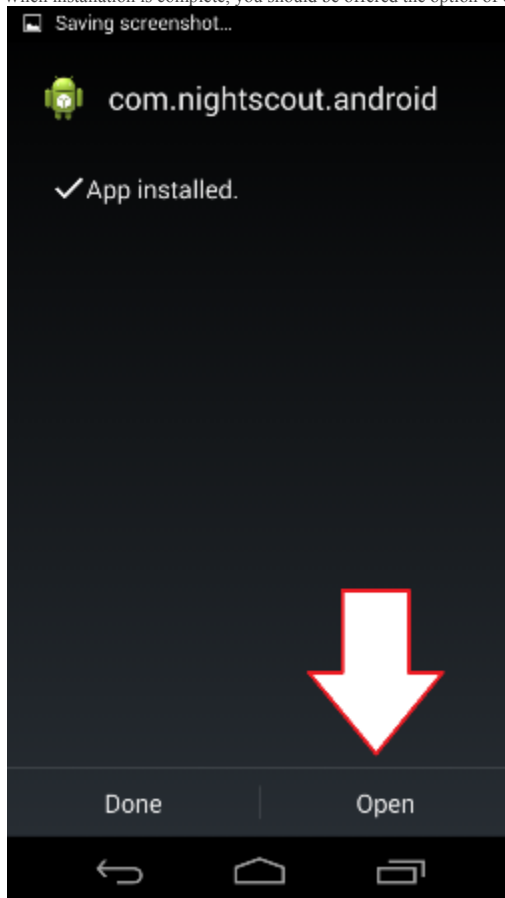
7. When the download is complete, swipe down from the very top of the Android screen, and you should see a file titled **Nightscout.APK**, and tap the file. Alternatively, the file will also can be found in the **DOWNLOAD** app on your phone



8. On the install screen, tap on **INSTALL**



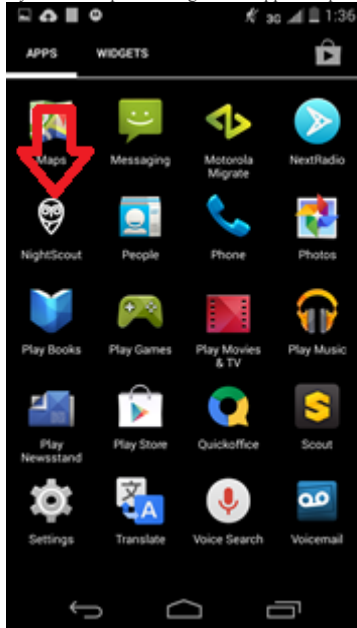
9. When installation is complete, you should be offered the option of opening the Nightscout application. Open it up and move to the next step.



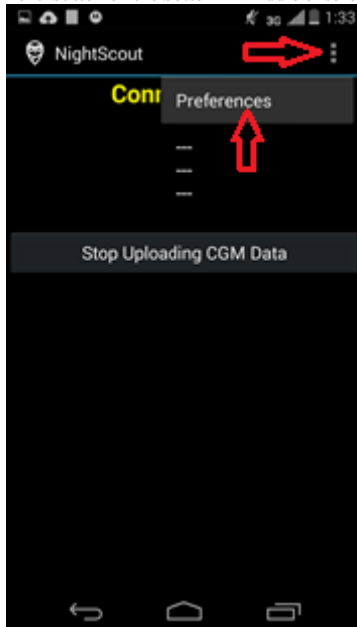
2. Configuring the Nightscout Application Preferences for MongoLab

On your Android Phone

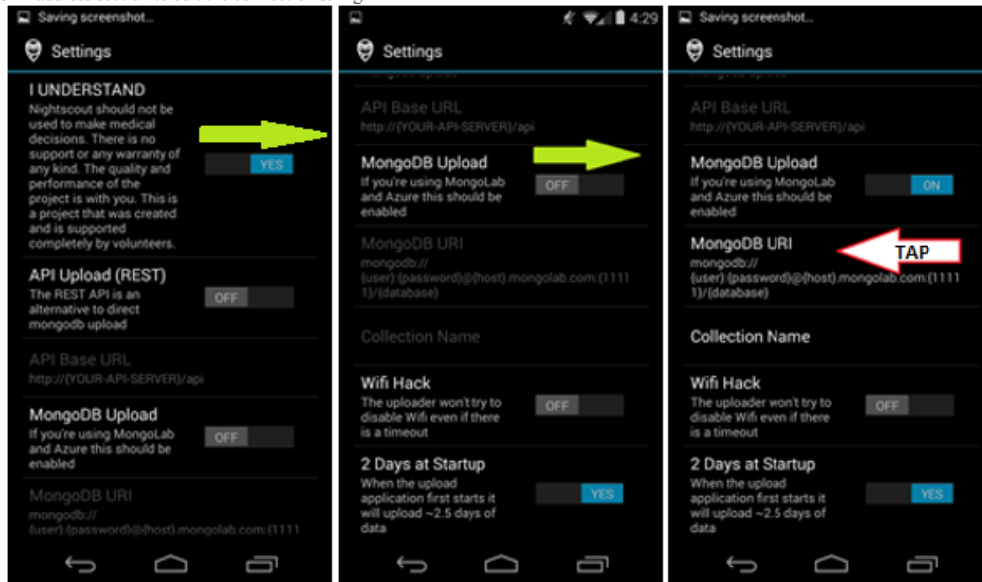
1. If you didn't open the Nightscout app from previous step, you can open from your devices apps list.



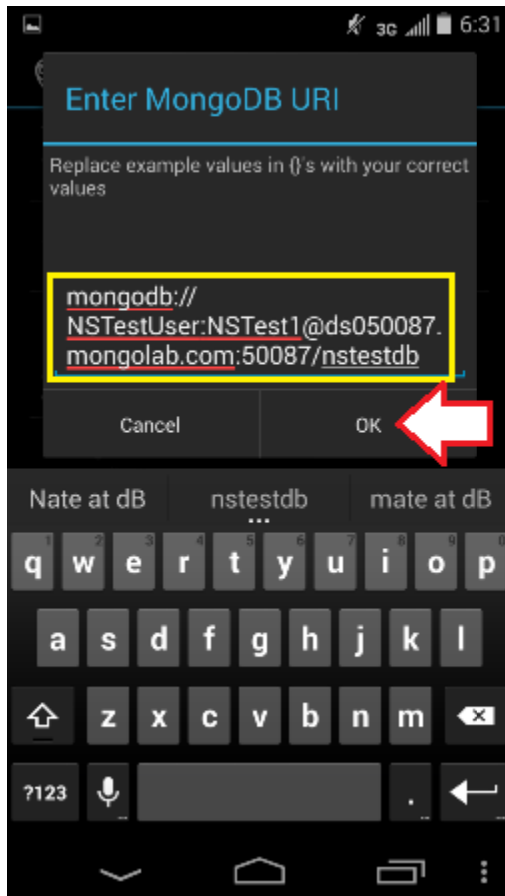
2. On the main Nightscout app page, tap on the menu (3 verticle dots) in top right, then tap **Preferences**. NOTE: On some devices you may find the menu button on the bottom in middle of screen.



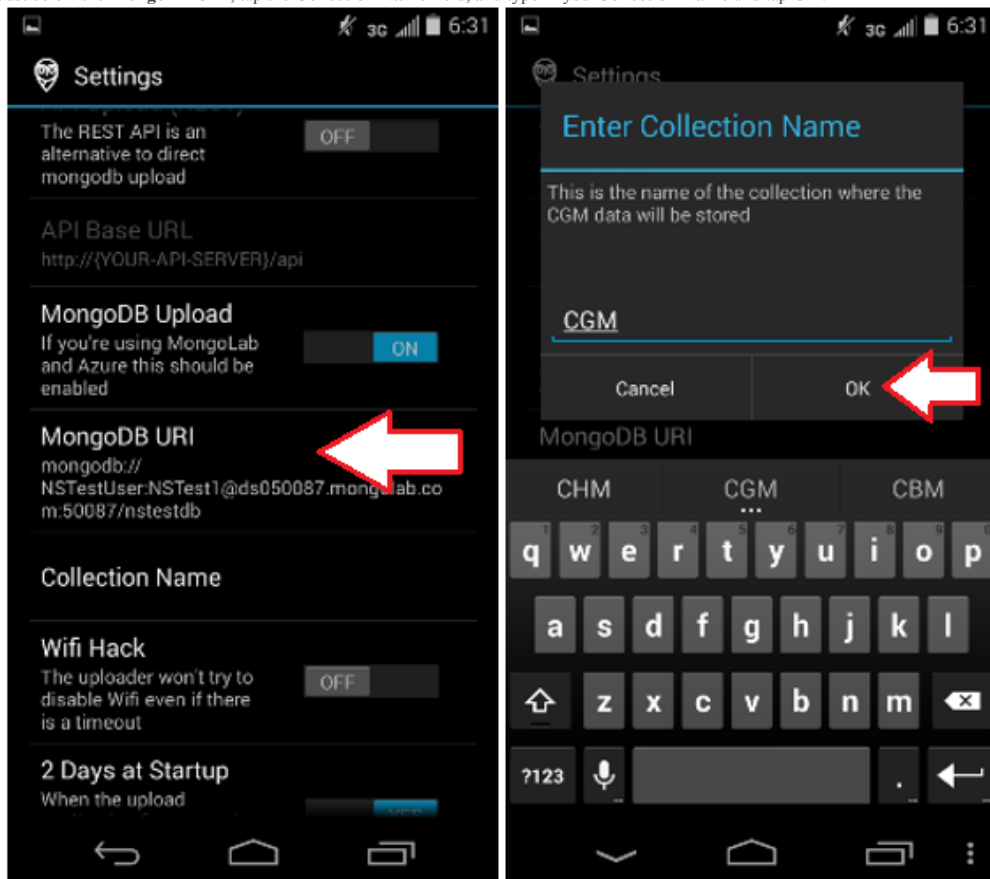
3. **PLEASE READ** and agree to the disclosure by sliding switch to YES. Then slide the MongoDB Upload switch to ON, then tap the MongoDB URI address section to edit the connection string



4. Tap at the end of the SAMPLE string, and delete, and then **MANUALLY** type (AVOID using copy/paste which can create hidden characters that will break your string) in the MongoDB URI with your MongoLab URI saved from your recorded information previously, and tap OK when complete.
- 5.

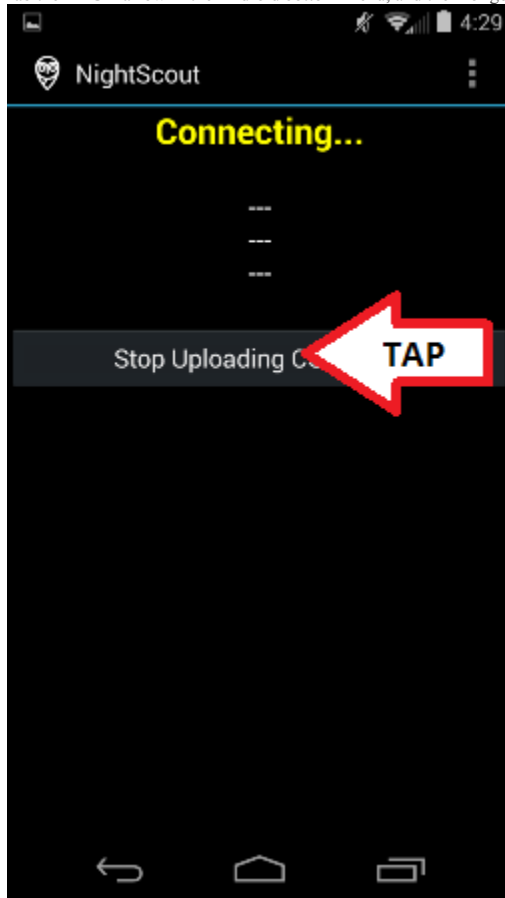


6. Just below the **MongoDB URI**, tap the **Collection Name** field, and type in your **Collection Name** and tap **OK**.



7. **WiFi Hack** -> **TURN THIS OFF** (Currently we have experienced issues, and expect this feature to be removed in future updates)
8. **2 Days at Startup** > If you have a **NEW CGM** (first day of using), then turn this **OFF**. If you have an established CGM, leave this on, and past 48 hours of data will upload to Mongo. If you ever experience a time/date issue, it's sometimes best to just turn this option off.

9. Tap the **BACK** arrow in the Android bottom Menu, and then for good measure, tap the **Stop Uploading CGM Data Bar** to close the screen.



If you followed the guide to this point, you should have the mongo connection string and connection name saved in a notepad text file on your computer so you can proof the entries now that you've entered them in the phone.

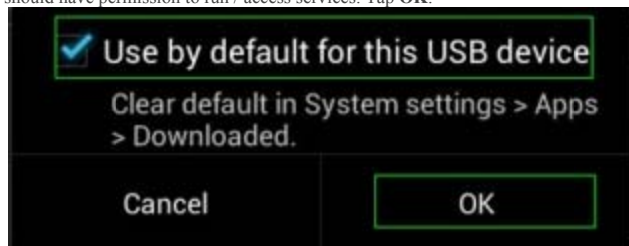
PLEASE double check and triple check the above entries and MAKE SURE THEY ARE CORRECT! This is where MOST issues occur.

With Mongolab now set up, the application should be able to start uploading once you connect your CGM.

Connect the Dexcom receiver to your Android phone.

IMPORTANT: when connecting the phone to the Dexcom, the OTG cable plugs into the phone, and the regular USB cable plugs into the Dexcom. *It will not work the other way, because OTG cables have pins 4 and 5 shorted on the microusb connector, the indication to the phone that an OTG device is connected.*

During the initial connection, there may be a pop-up asking if the app should have permission to run / access services. Tap **OK**.



The Nightscout app should load, and data should start flowing to Mongolab. When your Nightscout app is reporting the same BG number reading as the Dexcom,

and the time stamp is current, you should now log back into MongoLab.com and make sure your Collection is receiving documents, using the below steps. IF NOT, review the troubleshooting steps below.

TROUBLESHOOTING If Your Nightscout Uploader Is Not Displaying Current BG Reading As Your Dexcom

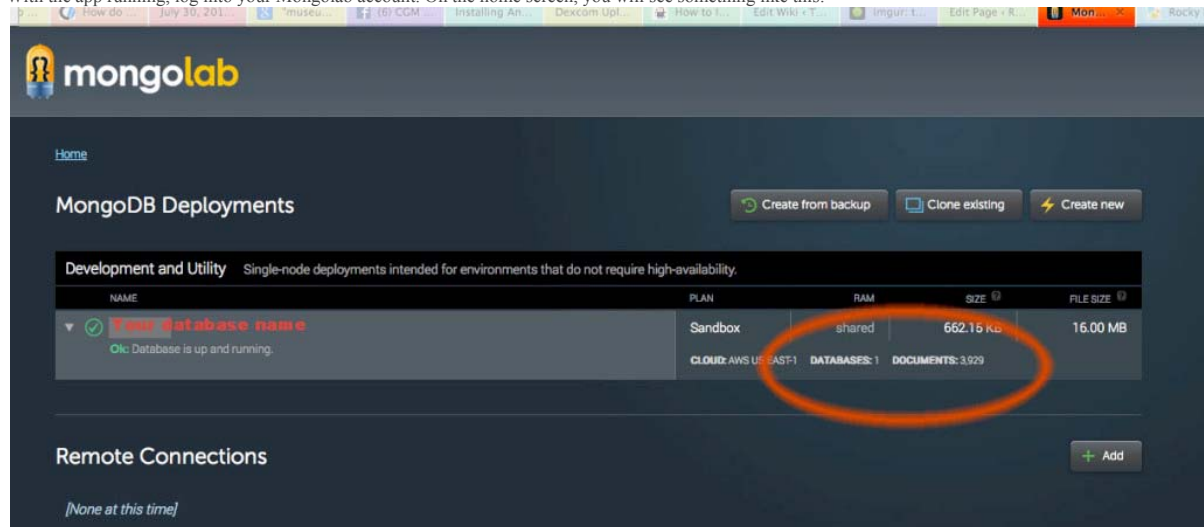
1. Is the CGM showing a charging symbol on the display? Seeing CGM Connection Error?
 - If Dex is not charging or have CGM Connection Error on your uploader, make sure your cable connections are secure, and that you have the OTG cable connected to the phone, and the regular MicroUSB cable connecting to the CGM
 - If this does not resolve, try disconnecting the cables and reconnecting them (**CAUTION: BE EXTRA CAREFUL** when connecting to the CGM because of the fragile USB port on the DEX)
 - If doesn't resolve, try powering down the Dex, and powering back up (DO NOT select Stop Sensor! Just power down and back on)
 - If still not getting a connection to the CGM, it could be due to bad cables. THIS IS NOT UNCOMMON! Try swapping out new cables and continue to test.
 - You WILL NOT be able to proceed until you achieve a current BG number reading on your Nightscout app.

Verifying That Data Is Flowing to Mongolab

Before moving to the next step, you must verify that the data is flowing to Mongolab.

AGAIN, ensure your Dexcom receiver is connected to your uploader device and that the app is uploading data (the Dexcom blood glucose number and the uploader device's blood glucose number should match). Be sure to allow several minutes to allow data to populate.

With the app running, log into your Mongolab account. On the home screen, you will see something like this:



CLICK on your Database name next to the green check mark.

On the next screen (below), if the data is reaching Mongolab, the number under the documents column **WILL NOT BE ZERO "0"**.



[Home](#)

Database: nightscout

To connect using the shell:

```
% mongo ds047438.mongolab.com:47438/nightscout -u <dbuser> -p <dbpassword>
```

To connect using a driver via the standard URI ([what's this?](#)):

```
mongodb://<dbuser>:<dbpassword>@ds047438.mongolab.com:47438/nightscout
```

Collections

Users

Stats

Backups

Tools

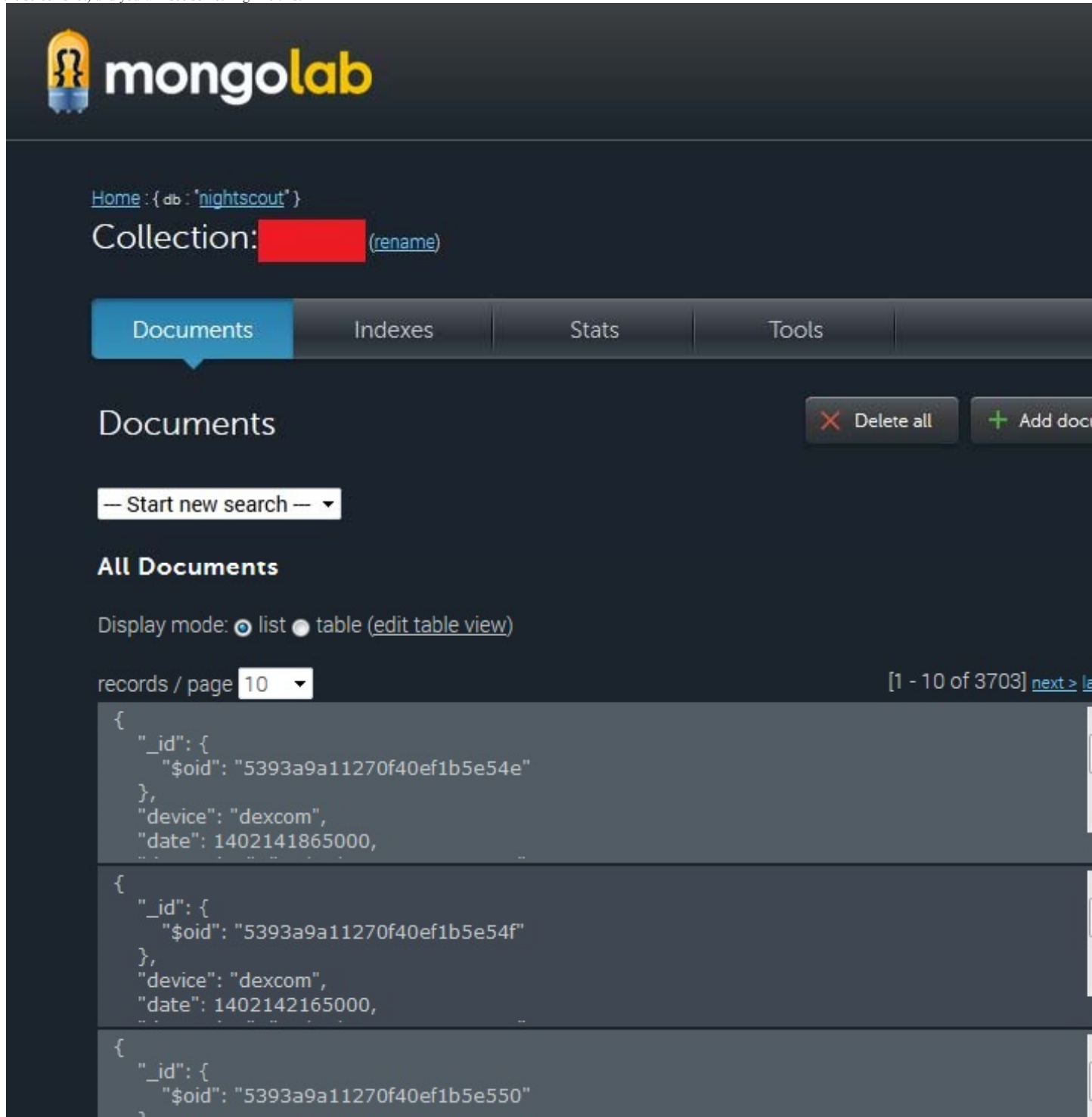
Collections

NAME	DOCUMENTS	CAPPED?	SIZE
	3,703	false	607.28 KB

System Collections

NAME	DOCUMENTS	SIZE
system.indexes	5	0.46 KB
system.users	1	16.06 KB

To view the actual documents/packets of information received including the date and time that Mongolab receives data, click on the collection name (blocked out on the screen shot) and you will see something like this:



The screenshot shows the Mongolab web interface. At the top left is the Mongolab logo. Below it, the text "Home: { db: 'nightscout' }" is displayed. The main heading is "Collection: [REDACTED] (rename)". Below this is a navigation bar with tabs: "Documents" (active), "Indexes", "Stats", and "Tools". The "Documents" tab is selected, showing a "Documents" heading and two buttons: "Delete all" and "Add doc". Below the heading is a search bar with the text "— Start new search —". The section is titled "All Documents". The display mode is set to "list" (radio button selected) with a link to "edit table view". The records per page are set to "10". The document list shows three entries, each with a JSON structure:

```
{  "_id": {    "$oid": "5393a9a11270f40ef1b5e54e"  },  "device": "dexcom",  "date": 1402141865000,  ...}
```

IF YOU DO NOT SEE ANY DOCUMENTS AT THIS POINT, go back to Step #2 above for configuring the Mongo URI in the Nightscout App' Preferences.

MAKE SURE that the USERNAME:PASSWORD is the same as your DBUserName and Password, and not your MongoLab.com Account credentials (especially if you created a different DBUserName then your login account – which is recommended)

ALSO: Verify that you have a working Internet connection on your phone. If you also have a cellular data plan on your phone, and are currently using WiFi, try turning off WiFi and see if makes any difference running off of cellular. If you don't have cellular data, but possibly have another WiFi hotspot to connect to (i.e. another smartphone with hotspot feature or tethering), attempt connecting to that as well.

If you are still having issues, please post to the Facebook group with a description of where you are in the process!

Once you have documents in your Mongolab collection, move on to the next step of setting up your Azure site which will allow you to monitor the CGM on the web.

Before you go ANY further, do you have documents in the Mongolab Collection? You are wasting your time to set up the website in the next step if you do not have documents.

Setting up Your Nightscout Website on Azure

There is a video of this step here: <http://youtu.be/99Gr3h8He98>

Before you begin, did you verify that you were getting data on Mongo? If Mongo isn't working, Azure won't work, and you're just wasting your time!

The following steps walk your through obtaining the web site source code from GitHub, creating a website hosted by Microsoft Azure, and then deploying the source code to your new Azure site.

1. GitHub Step:

- [Sign into Github.com](#) with a free account.
- After creating your account and are logged in, open the master repository by clicking here -> [cgm-remote-monitor](#)
- Make a copy ("Fork") of the nightscout/cgm-remote-monitor to your own repository by clicking on the 'Fork' button on top right



OR – just click here ->

[the cgm-remote-monitor](#)

- When prompted with 'Where should we fork this repository?', select your@<gitaccountname> below, and it will Fork to your repository. At the top of the page, you will now see <gitaccountname>/cgm-remote-monitor indicating you have your own copy forked from nightscout.

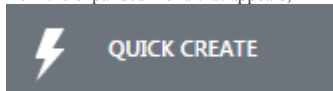
2. Azure Web Site Create Step:

- Visit <http://azure.microsoft.com>
- Click "Try for free" – this will be a 30 day trial
- Enter or create username: _____ (e.g. sally@outlook.com)
- Enter or create password: _____
- Enter credit card information (you will not be billed, ever, without your permission)
- **NOTE: We recommend you switch to the "Pay-as-you-go" plan AS SOON AS POSSIBLE (after your up and working) to avoid your account being deleted at end of free trial.** You will get email reminders when the trial is nearing expiration, but some people have missed or ignored the email. [CLICK HERE](#) to read more about how to change to Pay-as-you-go and costs (it will remain FREE, with same data limits as trial).
- Go to the [Azure Portal](#) <= click to get there (**NOTE: Make sure to NOT switch to the new "Preview Portal" after logged on, as the deployment step is not available for GIT at this time**)
- IF YOU ARE NOT SEEING THE FOLLOWING BUTTONS AND POP-UP QUESTIONS, SWITCH TO USING GOOGLE CHROME BROWSER.
- From the Microsoft Azure Portal, to create a new site, click on WEB SITES on the left navigation (under ALL ITEMS), then go to the bottom of the page



click on the '+ NEW' Button

- From the expanded menu that appears,



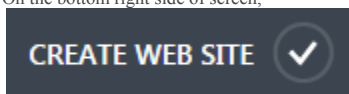
click on 'QUICK CREATE'

- If this is the first time creating a web site in Azure, you will see the following:

- For the **URL** blank, enter a unique site name (e.g. **mynewcgmsite.azurewebsites.net**)
- For **WEB HOSTING PLAN**, leave the default option of 'Create new web hosting plan'
- For **REGION** select one from the drop down list the best matches the region you reside.

Should look something like the below image when done:

- On the bottom right side of screen,



Click on **CREATE WEB SITE**

- The website details will appear, and the **STATUS** will show 'Creating...' and then wait until it completes and says 'Running' before continuing.

web sites

NAME	STATUS	SUBSCRIPTION	LOCATION	MODE	URL	
mynewcgmsite →	✓ Running	Pay-As-You-Go	South Central US	Free	mynewcgmsite.azurewebsit...	

- Click on your web site name (by the arrow), and you will see a welcome page stating 'Your site has been created!'

- On the top navigation menus, click on **CONFIGURE** as shown below:

mynewcgmsite



DASHBOARD

MONITOR

WEBJOBS **PREVIEW**

CONFIGURE

SCALE

LINKED RESOURCES

BACKUPS



- Next, scroll down the page until you find the **CONNECTION STRINGS** (it will be over three quarters of the way down the page. You will see this:

connection strings

NAME	VALUE	
		Custom
		SQL Database
		SQL Server
		MySQL
		Custom

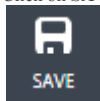
- On the row that is there, look to the right and click on the down arrow and select **CUSTOM**.
 - Name the row **mongo** (left box). The Value is your **mongo connection uri** from the mongolab account (you should have copied & pasted it into a document)
- FOR EXAMPLE:**
- mongodb://sallyuser:sallypassword@ds012345.mongolab.com:12345/mycgm
- Should look something like the following:

mongo	mongodb://testuser:testpwd@ds05	Custom
-------	---------------------------------	--------

- Create a second row by clicking in one of the boxes in the next row.
- Change the type to **CUSTOM** in the drop down on the far right of the new row.
- Name the second row **mongo_collection**.
- For this row's Value, enter the name of your collection. If you followed the example, the name of your collection might be one word, e.g. MYCGM.
- It should look something like this:

mongo	mongodb://testuser:testpwd@ds05	Custom
mongo_collection	mycgm	Custom

- Click on **SAVE** at the bottom of the page.



- When finished, the section will look like this:

connection strings

The connection strings are hidden. [Show Connection Strings](#)

mongo	<Hidden for security purposes>	Custom
mongo_collection	<Hidden for security purposes>	Custom
NAME	VALUE	SQL Database

- If you need to ever edit or see the values of your connection strings, click **Show Connection Strings**

connection strings



The connection strings are hidden. [Show Connection Strings](#)

and then you will see something like below (with your own information, of course):

connection strings

mongo	mongodb://testuser:testpwd@ds05	Custom
mongo_collection	mycgcm	Custom
<input type="text" value="NAME"/>	<input type="text" value="VALUE"/>	SQL Database <input type="button" value="v"/>

- If you made any changes to the connection strings, click **SAVE** at the bottom of the page, or proceed to next step

3. Deployment of GitHub to Azure Step:

- From Azure Portal, in the top navigation menu, click on the **DASHBOARD** menu:

mynewcgmsite



 **DASHBOARD**  **MONITOR**  **WEBJOBS** 

- On the right 'Quick Glance' menu, click on the '*Set up deployment from source control*' link

quick glance

 Visit the new portal **PREVIEW**

 View Applicable Add-ons

 View connection strings

 Download the publish profile

 Set up deployment credentials

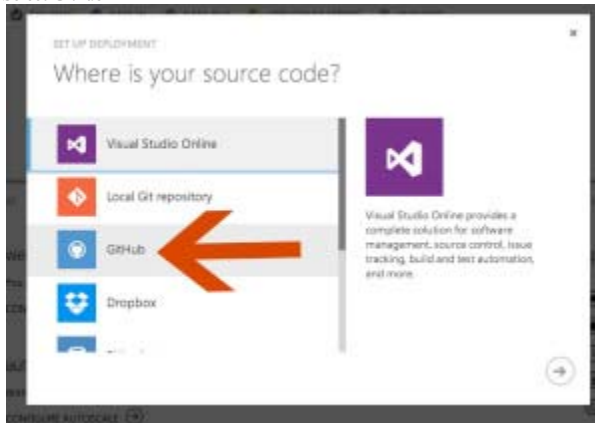
 Reset your publish profile credentials

 [Set up deployment from source control](#)

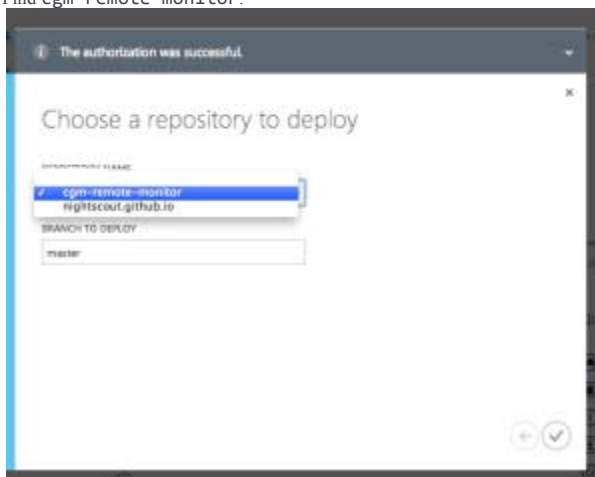


 Add a new deployment slot **PREVIEW**

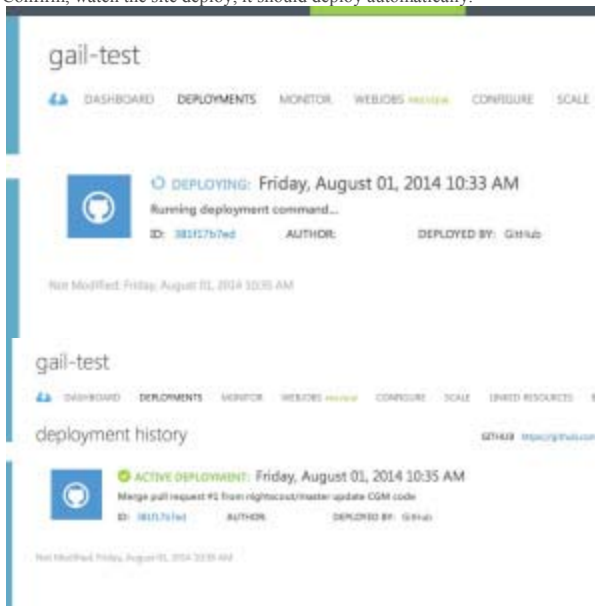
- Select Github



- Authorize Github/Azure access.
- Find `cgm-remote-monitor`:



- Confirm, watch the site deploy, it should deploy automatically.



- Verify operation by visiting your site, e.g.
<http://YOURWEBSITEName.azurewebsites.net>

THIS COMPLETES THE SETUP OF AZURE FOR YOUR NIGHTSCOUT WEBSITE.

YOU SHOULD NOW GO SWITCH TO “Pay-as-you-go” plan! This will avoid your account being deleted at end of free trial.

Our free trial ended with azure saturday morning at 8am. We don't charge our subscription to pay as you go BEFORE the free trial ended. This left us without rights for the weekend. I was gonna get with Microsoft monday morning and get my account set back up... but my daughter's blood engine got out of control saturday night. (I was fast her nightscout too and working) I would have been alerted before it ever came to this. Her infusion set stopped working and she was getting zero insulin. It could have been worse but it wasn't. I missed half a day of work today and she missed half a day of school so we could get her numbers back under control. My message to you all is... don't let your free trial expire without changing your billing options to pay as you go. Thanks again nightscout. I appreciate your software more than you will ever know.



To learn more about Azure Management and switching to pay-as-you go, click here -> [AZURE MANAGEMENT](#)

Azure free account management

This is not about Nightscout per se, but about maintaining your free Azure account.

Read on to understand why Azure/Microsoft charges for these “free” accounts...

This is useful in understanding how Azure charges for free accounts. These kinds of pricing/billing procedures are common among “cloud providers,” let this serve as a detailed guide of Azure services.

Quick takeaway

Your Azure service, even free usage, is paid for using something Microsoft calls a “**subscription**”. The Nightscout project walks you through and gets you going with a free introductory subscription. That only lasts for 30 days.

Before your trial ends, you MUST transition to the pay-as-you-go subscription, or your account will be cancelled and your website will be deleted!

Our usage aims to be at the free “scale” inside the pay-as-you-go paradigm. Even though our usage remains within Microsoft’s freebie policy, their subscription model requires having a credit card on file.

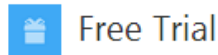
What Does It Cost After Your Free Trial?


As long as you don’t change anything from when you set up the site, it remains **FREE**, AND as long as you don’t exceed **165MB of Outbound Data Transfer** per day on your site, your site will keep running (See section below for “Your Site is Currently Unavailable”). **Outbound Data Transfer** occurs when someone is viewing the website or getting data from it. This would be when ever you open a browser on your PC, on your phone or tablet, also the Pebble watch connecting to the site to get the data it needs. HOWEVER, under normal use with multiple devices, the 165 MB per day should be more than enough, based on the 100’s of users that use this already.

How To Switch to Pay-As-You-Go

1. Log into your Azure Portal via <https://manage.windowsazure.com>
2. On the top right corner of the Portal page, click on your user account name and from the drop down, select **VIEW MY BILL**

3. In the middle of the page you should see your active FREE TRIAL, and in the yellow banner it should say something like “Your Free Trial expires in XX day(s). Click here to upgrade now.”. Click on the banner to proceed.



 Your Free Trial expires in 15 day(s). Click here to upgrade now.

4. A dialog window will pop up (see below) for “Fully enable Windows Azure”. Select the bullet next to “Yes, upgrade my subscription”, if you wish, you can change the Subscription Name field from the default, and then click on the check mark on the lower right of the box.

Fully enable Windows Azure



We're glad you're enjoying your stay. So why not make your Windows Azure experience even better? Upgrade to a full Windows Azure pay-as-you-go subscription to unlock all features. You will still enjoy all existing benefits and will only be billed for usage beyond what is included in the Free Trial.

WHAT WOULD YOU LIKE TO DO?

☒ Yes, upgrade my subscription. By clicking this option, I authorize Microsoft to charge my current payment method on a monthly basis for the amounts indicated in the [Offer Details](#) until my subscription is cancelled or terminated.


☐ No, I'm not ready to upgrade yet.


Subscription name

Pay-As-You-Go





5. After this is completed, you should see the following yellow information bar showing the PENDING state

 Pay-As-You-Go Pending

 You can start using Azure services while we setup the billing for this subscription. Click here to refresh.

6. After a few minutes, you should see the following if you refresh the page.

 Pay-As-You-Go Active

 This subscription does not have a spending limit, and you will be charged for usage beyond what is included in the subscription.

7. You now will be safeguarded from your site being deleted when the trial ends.

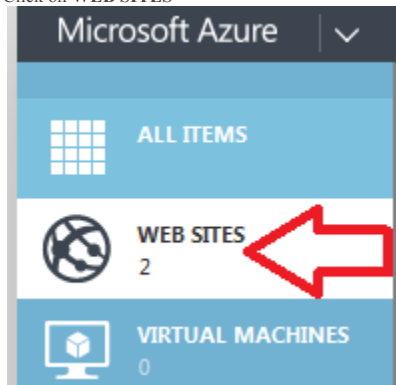
Your Site is “Currently Unavailable”

What Happens If I Go Over My 165 MB Outbound Data Transfer?

Well, you probably will see a big blue web page that says “*This Site Is Currently Unavailable*”.

To get your site back up and running temporarily, for just pennies, follow the below steps:

1. Log into your Azure Portal at <https://manage.windowsazure.com>
2. Click on **WEB SITES**



web sites



3. Click on your web site to bring up the Dashboard

CONFIGURE SCALE RESOURCES

4. Click on SCALE on the top navigation menu
5. Then look for the **Web Hosting Plan Mode**. You will want to switch from **FREE** to **SHARED** and then click **SAVE** at the bottom.

web hosting plan mode



web hosting plan mode



DO NOT SELECT THE BASIC OR STANDARD! They are expensive!

web hosting plan mode

Do NOT select these!!

WEB HOSTING PLAN MODE

FREE	SHARED	NO	NO
------	--------	----	----

Also...do not change anything in the CAPACITY section. Changing this will incur additional costs.

capacity

SHARED plan: DO NOT CHANGE THESE!

With a Standard website, you can configure autoscale and spend only as much as you need for your service.

INSTANCE COUNT

1 instances

MYTESTCGM AVAILABLE

After you have made it past the time reset time limit when you get your 165 MB back to use again, go back into your site, following the same steps above, and switch back to the **FREE** option and **SAVE**.

PRICING for the SHARED Plan (Currently under preview – prices subject to change – refer to the Azure Websites Pricing link below for all accurate pricing – this info is accurate as of 9/12/2014).

Websites Shared (Preview): The price for the Shared tier during preview is \$0.013 per hour per website instance (~\$10/month). This price reflects a 33% preview discount.

EXAMPLE: If your data cap was hit with still 12 hours left out of a 24 hour day, this would calculate to just over \$0.15 (so less than 25 cents for 12 hours, and if you left it set this way for a day, it would cost you about 30 cents a day). So, if you find you are hitting your data cap daily, think of the small cost of just leaving the shared plan active. Under the current preview pricing, leaving at the **SHARED** plan would cost approximately **\$7.50 per month**.

REGION NOTE: Currently the JAPAN and BRAZIL regions charge a small amount more – only 1-2 cents more per hour.