

Welcome to the Senquip quarterly update. If you would like to be added to the distribution list, please send us a message at [support@senquip.com](mailto:support@senquip.com).

## Senquip wins national IoTAA award

Senquip, is thrilled to have won the Australia wide Internet of Things Alliance award for Interoperability by Design.

Senquip telemetry devices connect to any industrial sensor or system and send the data measured to a server of the customer's choosing.

“We are seeing increased opportunity to monitor and control autonomous mining equipment in WA, and this award demonstrates that Australian Senquip is leading the pack when it comes to connecting to and extracting data from remote machines and making it available locally” said Norman Ballard, CEO of Senquip.

The Internet of Things (IoT) is transforming the way industrial and mining companies operate by enabling automation, providing remote diagnostics and predictive maintenance, and allowing the optimisation of more processes than ever before.

Senquip is proud to be an award-winning manufacturer of IoT devices in Australia.



## Lifetime hosting plans

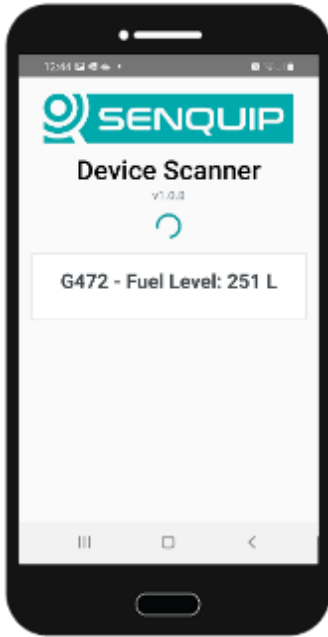


Monthly subscriptions can cost more to process than the value of the subscription. In response to customer demand, Senquip now offers monthly, annual, and lifetime hosting plans.

A lifetime subscriptions costs A\$750 and will give the user all the benefits of a hosted solution for 10 years.

For more information on the Senquip Portal and hosting, see the [User Guide](#) or create an account on the [Senquip Portal](#).

## Bluetooth App released



Senquip has released a BLE device scanner App that can display beacon data being transmitted by Senquip devices.

Users can determine what data is sent by writing a simple script, and data can be displayed from multiple Senquip devices at the same time.

Applications we are seeing include quickly referencing engine hours, fuel level, battery voltage, and fault codes on machines and checking instantaneous flow and level in water applications.

Senquip devices can now read data from Bluetooth beacons and can act as beacons, sending data to other Senquip devices or the Senquip App on a phone or tablet.

The Bluetooth App is currently limited to Android devices with IOS being added as required. Download the Senquip BLE app from [Google Play](#).

## Timed functions



Did you know that you can write JavaScript functions for Senquip devices that will run at a specified interval independent of the device base interval?

A regular timed function can be useful to monitor the state of an input or to send a CAN message at a predefined interval.

For more information, please see the [Scripting Guide](#)

## Improved functionality for cloning devices

Freight Mode

Request Device Settings

Export Settings

Import Settings



### Cloning Devices

Enhanced functions for saving device settings, scripts, and Portal settings are now available on the Senquip Portal.

Users can save a device and its Portal environment in a single encrypted file, and later upload and export it to clone a device.

### Freight Mode

It is very important, when shipping a Senquip device that it is put in freight mode. In freight mode, the device will draw almost no current and will arrive at site with a full LiPo battery. Freight mode will be exited when AA batteries are inserted, or power is applied.

Enter freight mode from the Webserver, by pressing the setup button 3 times when in setup mode, and now from the Senquip Portal.

## Hikvision sunshade

If you have an application where a Senquip ORB is powered by solar and there is a concern that the temperature of may rise to a level that prevents the internal battery from charging, here is a sunshade that can be mounted above the ORB and will not impact the cellular or GPS communications.

The Hikvision DS-1250ZJ sunshade is available from Security Wholesalers for A\$16.00.



## Latest scripting features

```
1 load('senquip.js');
2 load('api_config.js');
3 load('api_endpoint.js');
4
5 SQ.set_data_handler(function(data) {
6   let obj = JSON.parse(data);
7
8   // Base 64 decode example:
9   let b64 = "VGhpcyB0ZXh0IHdhcyBiYXNlNjQgZW5jb2";
10  let decoded = SQ.atob(b64);
11
12  let DevModel = Cfg.get('device.model');
13  let DevId = Cfg.get('device.id');
14  let DevName = Cfg.get('device.name');
15
16  // Publish data to MQTT connection
```

Senquip will continue to develop scripting, adding new functions to add capability.

- Ability to transmit CAN messages from a script.
- Execute functions based on timer interrupt independent of base interval.
- Custom settings that can be used from within the script. See scripting guide for more information.
- Feedback from the device about scripting errors. When enabled, script errors will generate warnings in the device's data message.
- Distance function to calculate meters between the device and another GPS position.
- Encode function to convert numbers into raw byte format (signed/unsigned 8/16/32 bits).

For the latest firmware, see the [Firmware Release Guide](#) and for details on scripting, see the [Scripting Guide](#).

## Interesting sensors

The [GMX600](#) Compact Weather Station from Gill Instruments features ultrasonic wind speed and direction and an optical sensor to measure precipitation. No moving parts means higher reliability and less maintenance.

As expected, the sensor also offers air pressure, temperature, relative and absolute humidity, wind averages and gusts, rainfall total, intensity, and emulated tipping bucket.

The sensor offers RS232, RS485, NMEA, and MODBUS and so is easy to interface with Senquip devices.

