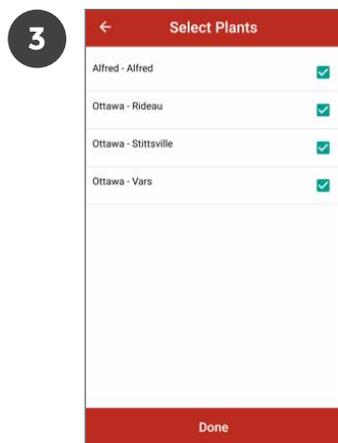


This guide should be used for navigation of the Smart Concrete Application and the installation of Smart Concrete sensors. You must follow the steps outlined below to avoid sensor installation failure.

## Application – How to get Started

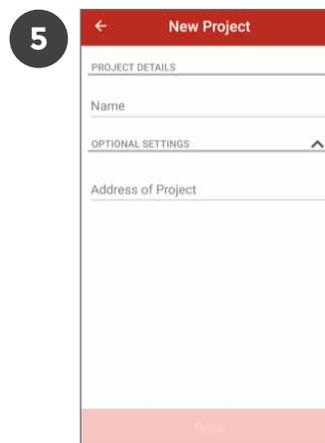
- 1 Download the Giatec Smart Concrete application from the Play Store for Android or App Store for Apple by searching this key word: **Smart Concrete** (Giatec Scientific Inc).
- 2 Open the **Smart Concrete** application and select **Tomlinson** as your producer then press done.



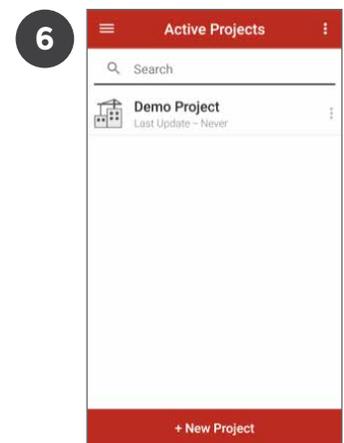
Select all of Tomlinson Ready Mix Plants (Alfred, Rideau, Stittsville and Vars) then press done.



Create a new project by pressing + New Project.



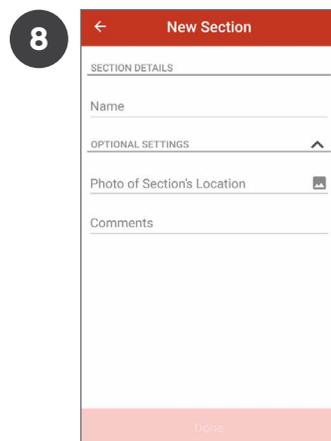
Enter your project details including project name and address.



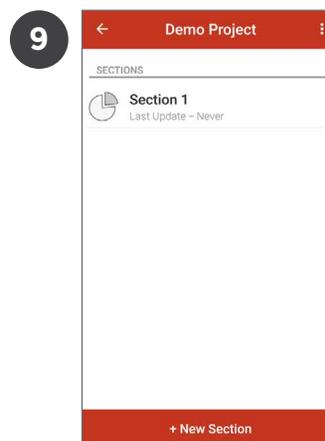
Select your project.



Create a new section by pressing + New Section.



Enter your section details. (Sections are normally labelled by the levels of the building.)



Select your project.

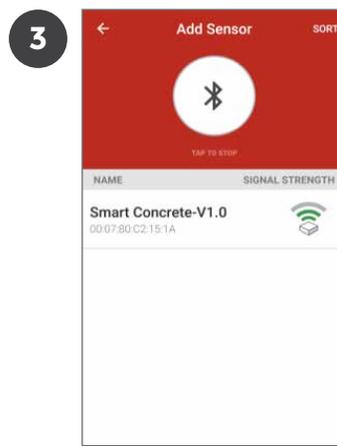
## Tagging Sensor

- 1 Activate the sensor by twisting the two metal prongs together tightly. Failure to twist the activation prongs correctly can lead to sensor malfunction.

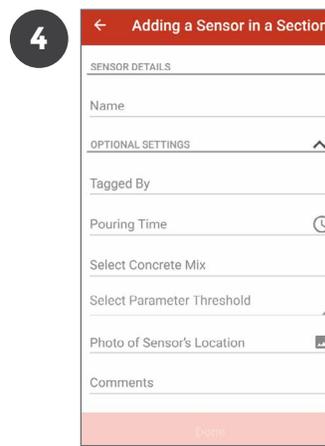
*\*They can be twisted tightly by hand or using a pair of pliers, be careful not to break the sensor. Hand twisting can leave gaps leading to a disconnection. Activate one sensor at a time to avoid improperly tagging the sensors.*



Add a new sensor by pressing + New Sensor.

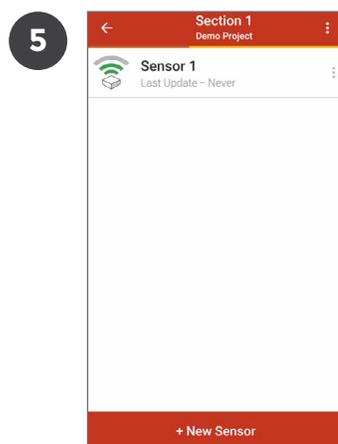


Once the sensor has been found by the application select it.



Then add a name, pouring time, applicable calibrated concrete mix, and a picture of the installation location for sensor.

*\*It is important to choose the location of the sensor wisely by placing it in a low traffic area to avoid damage and have a reference point for future data retrieval.*



Select the sensor.

*\*Sensors, Sections and Projects can be edited afterwards by selecting the three dots beside the item.*



Once the sensor has been found by the application select it.



Write the sensor name on the label on top of the sensor.

*\*Sensors can be tagged beforehand but don't twist the prongs tightly if you intend to deactivate the sensor. Sensors that have been left active will continue to monitor, reducing the amount of memory and battery life remaining. Generally contractors choose to activate the sensors on the day of pour.*

## Installation

- 1 After arriving to your desired monitoring location choose an intersection of the rebar that will facilitate the installation of the sensor. Make sure the sensor will not be embedded deeper than 5cm (2 inches) in the concrete. Installation deeper than 5cm (2 inches) can result in connection failure to the sensor due to low signal strength.

*\*Install sensors with a visible landmark, gridline or temporary flag. Installing the sensor near a chair will help reduce the amount of movement experienced during concrete pouring.*

- 2 Position the sensor on bottom row of the top reinforcement at the intersection. Then ensure that the probe wire is not pinched between the sensor and the rebar. Afterwards use the twisted wires of the sensor to temporarily secure the sensor.

- 3 Use electrical tape to secure the sensor by taping around the sensor first and then in a cross pattern. The sensor must be secure and free of movement to avoid damaging the sensor.

**Warning:** Do not use metal tie wire or zip ties to secure the sensor which could damage the sensor and temperature probe wire.

*\*Electrical tape with vibrant colors can help protect the sensor by making workers aware of its existence.*

- 4 Secure the temperature probe wire to the underside of the rebar using electrical tape every 3 inches to limit the possibility of damage to the wire.

*\*Metal tie wire can be used to help secure the temperature probe at the desired location by having it connected to the top and bottom steel. Use electrical tape to secure the probe to the metal tie wire.*

- 5 Connect to the sensor to verify that it is working and reading properly.

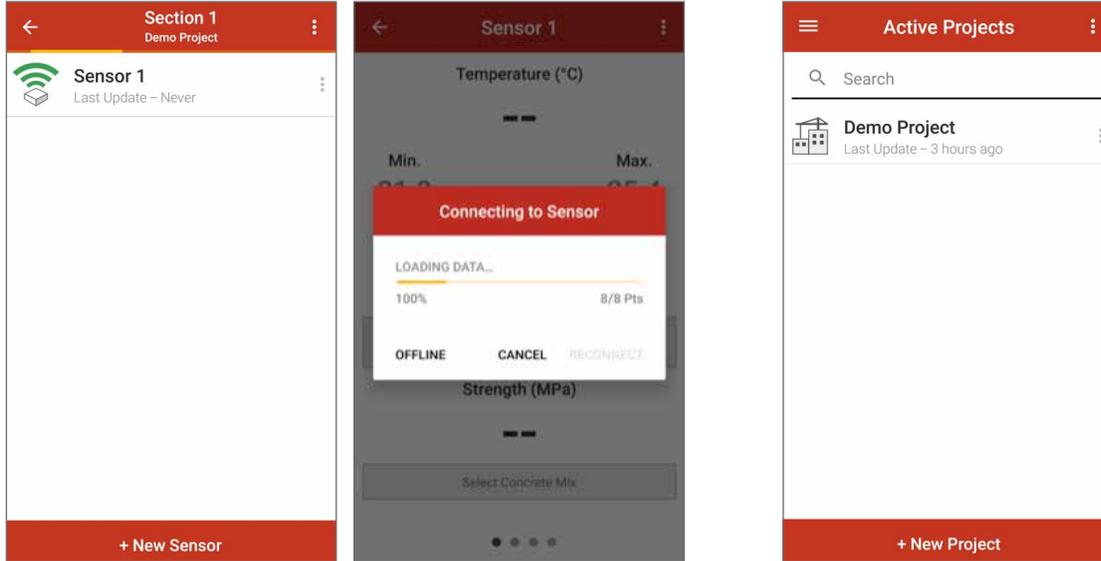


## Picture of typical installation



## Reading

1



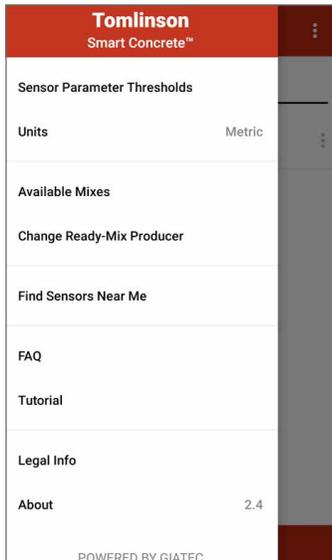
### Option 1

Locate the desired sensor in your project, wait for the sensor to connect then select the sensor. When connection is established the application will download the data from the sensor and output the information.

### Option 2

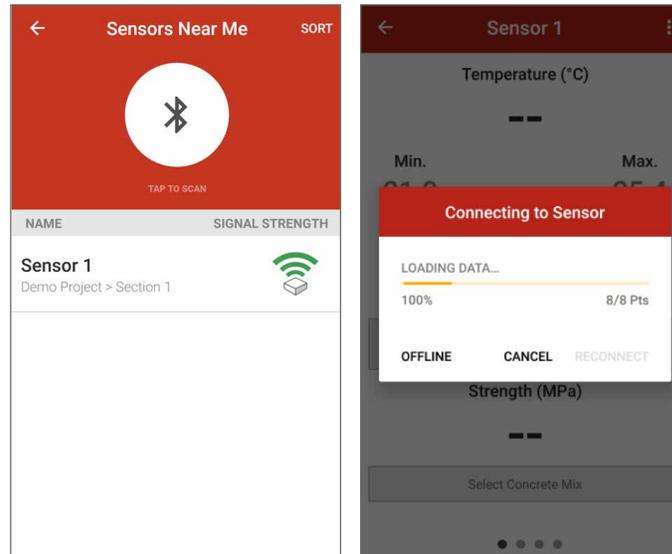
On the main screen, select the three bars at the top left corner.

2



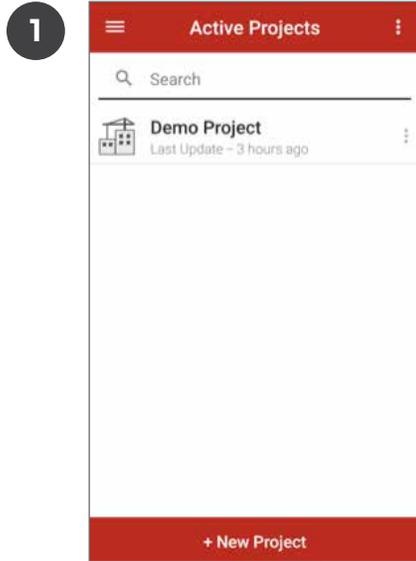
Select Find Sensors Near Me.

3

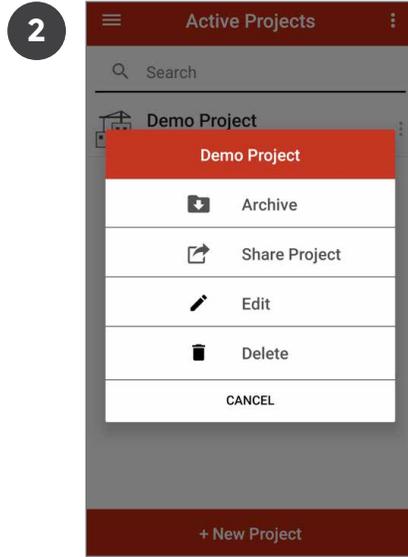


Select the sensor once the application locates it. The application will download the readings and output the information.

## Sharing

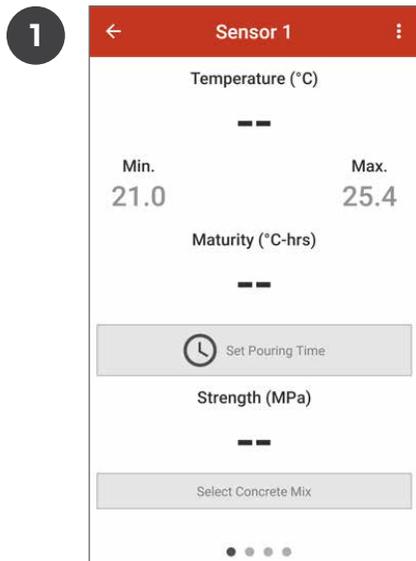


Select the three dots besides your project.

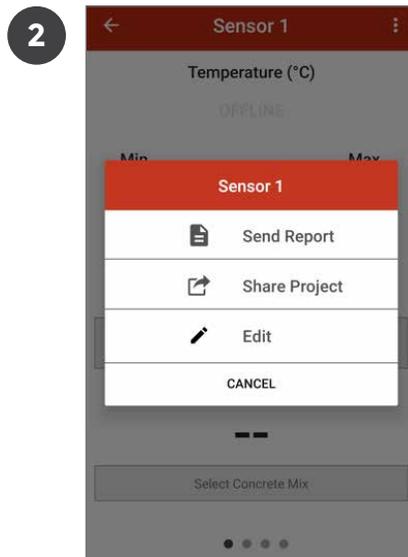


Select Share Project and the application will open your e-mail, then forward to the desired recipients.

## Reports



Select the desired sensor to see the information output. Select the three dots on the top right corner.



Select Send Report and the application will open your e-mail, then forward to the desired recipients.