

SMART GOLF COURSE MANAGEMENT



IoT and Golf Course Maintenance

The role of a greenkeeper is no easy feat. Wherever you may be located, there are an abundance of implications which could affect your course. From monitoring the weather, to ensuring site security and safety and the whereabouts of loaned equipment, the management of golf courses and resorts covers a wide range of factors which can sometimes become an overwhelming task.

LoRaWAN devices can be easily installed without the need for any cabling or disruption to your landscaping. All devices connect wirelessly to a cloud-based server meaning there is no large set-up costs or maintenance requirements. With a battery life of up to 5 years, once deployed you can begin to monitor your grounds, helping to make savings and improve your overall operational efficiencies.

We've taken a look at how LoRaWAN devices can be applied to the maintenance of Golf Courses and turn your competitors green with envy.

KEY BENEFITS

- Simple to install with minimal disruption
- No large overhead or maintenance costs
- Many devices feature replaceable batteries and have a battery life of up to 5 years
- Expandable to provide a future-proof solution
- Remotely control your water irrigation systems to maintain
- Create the solution you require with the flexibility to switch out the devices that are useful to you

The Challenges

Maintaining that pristine green is no easy task, but we know there's more to maintaining golf courses and resorts than the green and Fairways.

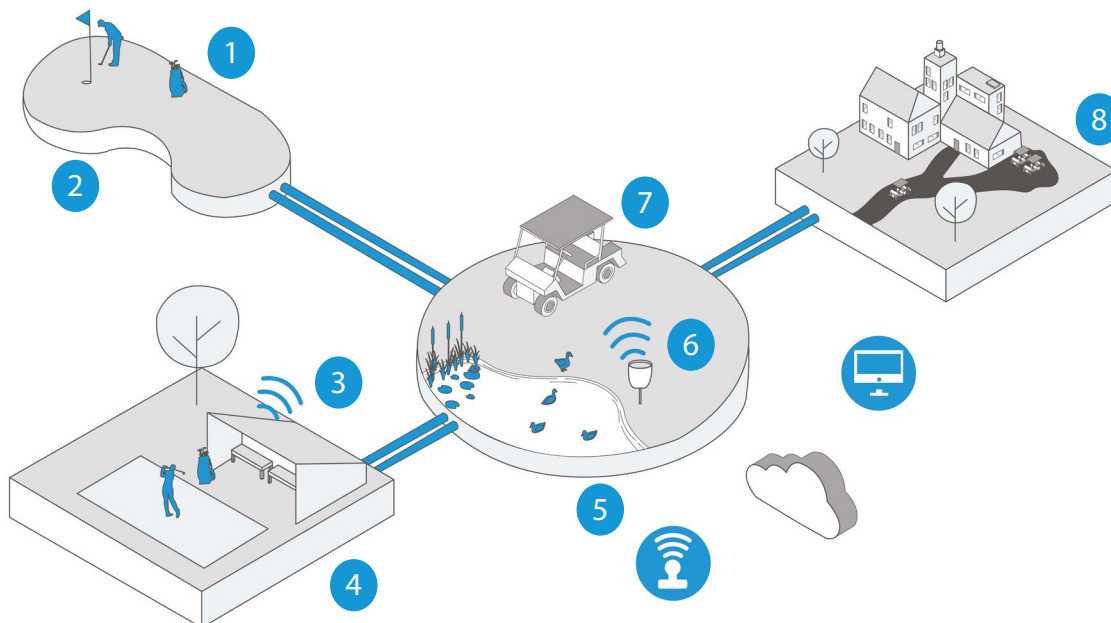
The main areas we look to address in this use case include:

- Water irrigation to maintain your green
- Weather monitoring enabling you to reduce water waste
- Optimising waste collection to maintain course cleanliness
- Track the location of equipment on loan
- Ensuring carts are sufficiently charged prior to loan

Use Case: SMART GOLF COURSE MANAGEMENT


The Solution


Once you are happy you have sufficient network coverage the next stage is to select your gateway and sensors. If you are unsure of your network coverage and requirements contact Alliot for expert technical advice. The diagram below illustrates how you can use different devices to optimise the maintenance of Golf Courses and Resorts.



1  Imagine, the putting greens perfectly watered. Using the **Sensoterra Wireless Soil Moisture Sensor** or the **Netvox R718PB15A LoRaWAN Soil Moisture Sensor** you can perfectly measure the moisture level of your golf course green.


2  Information from the **Sensoterra** soil moisture sensor can then be used to assess when the green needs to be watered. Paired with the **Strega LoRaWAN Smart Valve and emitter** you can connect to your existing irrigation system and remotely control your water supply to water your green.


3  But wait, you don't want to soak your golfers! Using the **Netvox RB11E Occupancy Sensor**, you can remotely detect presence on the green, helping to ensure you don't give anyone a shower.

4  Want to see how much water you're actually using? With the **Robeau Water Flow Meter** you can quickly identify leaks enabling you to rectify any issues and make savings on overall water consumption.

5  Make more informed decisions when it comes to watering your greens. With the **Metos LoRain Rain Sensor** you can identify weather patterns and see live forecast information, helping you to minimise water waste and save your greenkeepers' time.

6  Golf courses and resorts are a great way to enjoy the great outdoors. Optimising your waste collections with the **Tekelek Waste Bin Sensor** can help to maintain serenity on your course. This smart device could be used anywhere including on the course, in the toilets, and the clubhouse.

7  What about the loaned equipment? With the **Kerlink Wanesy Wave Smart Tracking Solution** and the **BOB Industrial Vibration Sensor** you can keep track of equipment. The **BOB Industrial vibration sensor** will enable you to monitor the use of loaned equipment and whether or not it may be faulty.

8  If you have carts available for hire, you will want to ensure they are ready for use each day. With the **Netvox R718N3 Solid Core Current Meter** you can be alerted when carts have been charged, helping you to ensure you are prepared for service.

How it all works..

The devices within your solution will connect to your gateway which then transmits the collected data via the cloud to your chosen application server. Alliot can pre-provision your sensors to send data at specified times and frequencies enabling you to optimise your Golf Course maintenance right away.