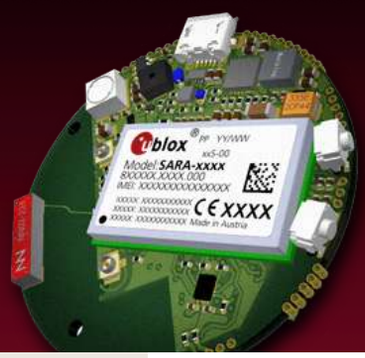
ignion | cactus

Your innovation.
Accelerated.

BICYCLE TRACKER

Incident traffic control monitoring and bicycle tracker



SEE OUR INNOVATION IN ACTION

About Cactus

Cactus is a multidisciplinary agile engineering consultancy with large experience regarding software and hardware development, specialized in end-to-end electronic solutions that cover the whole IoT market: Healthcare, Energy, Agriculture, Finance, Manufacturing, Retail, Hospitality, Transportation and Logistics.

THE CHALLENGE

Cactus' goal was to design a tiny, high-precision, battery powered tracker with the ability to predict bicycle traffic accidents and provide analytics on how and why they take place. Their main objectives were to use NB-IoT cellular coverage to communicate relevant data to the cloud whilst prolonging the battery life of their devices.

THE SOLUTION

Cactus and Ignion developed a tracker, which covers the NB-IoT frequency bands. It is built around Ignion's RUN mXTEND™ multiband antenna booster. Cactus decided to use the RUN mXTEND™ Virtual Antenna™ component because it covers a wide frequency range, allowing the reuse of the same design for project variants, by simply fine-tuning the matching network. Another reason is the reduced small form factor these antennas have, which provide unprecedented versatility in RF designs. "Worth noting the documentation and the technical service offered by Ignion, it really boosted the RF design phase of the project." Israel Blanco, CEO at Cactus.

"High-performance and minimal footprint were key considerations when choosing Ignion."

– Israel Blanco, CEO, Cactus

3 months to design the product

15 different RF standards covered

3 times faster product time to market