

Powerful Parking Performance Data

Ultra-Long Battery Life Ensures the Highest ROI

eleven-x's wireless SPS-X smart parking sensor is an innovative, award winning, patent-pending LoRaWAN®-based parking sensor that detects stall occupancy status and monitors space usage in real-time. In the past, sensors have fallen short when it comes to reliability and lifespan, making this a key feature in the design of the SPS-X. Here is how eleven-x designed and engineered the SPS-X for maximum reliability:

Battery Selection and Design

A key component of the ultra-long battery life of the SPS-X smart parking sensor is the type of battery used in the sensor. The SPS-X smart parking sensor uses large, high-capacity lithium thionyl chloride batteries. Lithium batteries are known for being long-lasting, durable batteries with a low discharge rate. This makes them ideal for IoT solutions like the SPS-X smart parking sensor. To further preserve the life of the lithium battery, the SPS-X smart parking sensors are designed with a power system that optimizes the capacity of the battery to ensure safe and uninterrupted power.

Detailed, Ongoing Modelling

eleven-x develops detailed models of the battery life to help determine the expected lifespan of the SPS-X smart parking sensor. Power consumption is precisely mapped out during all operations the sensor undertakes. This includes all configurations, radio modes, temperature, and leakage. Using this data, our team of experts can build a detailed, accurate model to predict battery life.

The eleven-x team continues monitoring this detailed modelling even after the sensor has been installed so that performance data and health status is always up to date.

Expert Device Management

Once the SPS-X smart parking sensors are installed, eleven-x continues to track and monitor the battery performance and uses this field data to improve battery life models. The models that were developed during the design phase are integrated into the device so that eleven-x can track real usage against what the models have predicted and are then able determine how much life is left in the battery. Battery usage and voltage is reported by the sensor via the LoRaWAN connection.

These models have been extensively field tested in varying environments across Canada and in testing facilities where they have been exposed to temperatures ranging from -40° to 85°C.



Inground



Surface Mount