

# LRS NODE 1

## IoT Sensor End Node

### STM32WL SOC

- ARM Cortex M4+ Core
- On-chip LoraWAN Radio
- Ultra-Low Power

### Power Variants

- LI-Ion Rechargeable battery with solar harvester and panel
- 3xAA Batteries for non-charging sensors

### Low Power

- Ultra Low Power LDO regulator
- Power-On switching only on the measurement phase
- Minimal Deep Sleep power dissipation

### SPV1050 Power Harvester

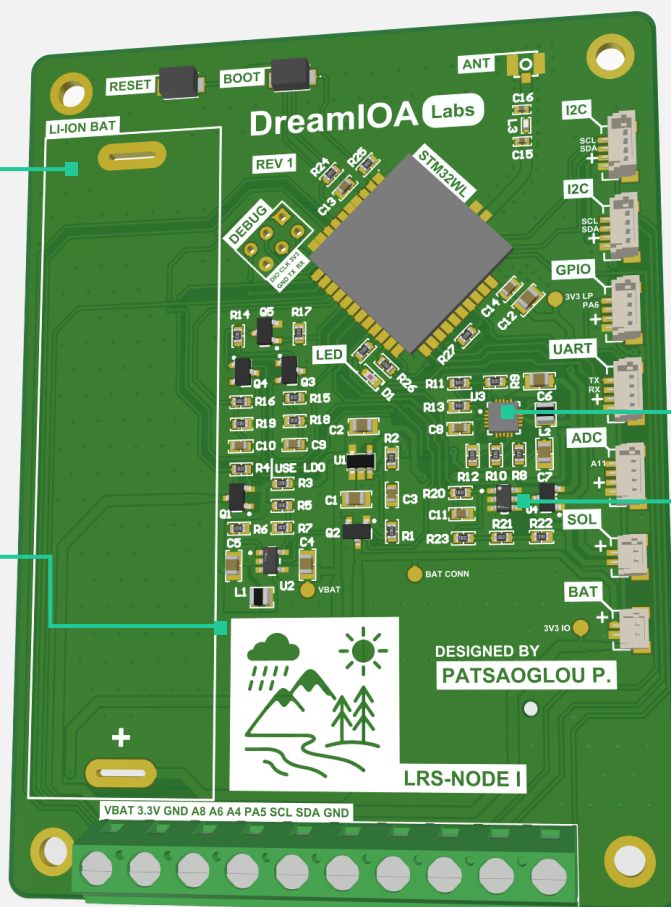
- MPPT Control
- Charging Current up to 70mA
- Ultra-Low Power

### Power Status Sensor

- Battery Voltage Sensor
- Solar Voltage/Current Sensor

### Various IOs

- Various exposed IOs to support a wide variety of different sensor types
- Covers different deployment requirements with minimal maintenance effort



### Applications:

- Smart Parking
- Smart Metering
- Environmental Monitoring
- Smart Bins

The **DREAMXLABS LRS Node 1** is a general purpose LoraWAN node that can be connected with PH-Meters, Temperature, Humidity, Pressure, Proximity, Strain gauges, air quality and accelerometer sensors achieving monitoring and smart city requirements. Designed using ultra-low power electronics, it can work for several years without intervention while solar harvesting extends battery life even more