

## Traffic Count

### IoT

Internet of Things is a network of physical objects ('things') for the purpose of connecting and exchanging data with other devices and systems. The Traffic Count is an IoT device using LoRaWAN or NB-IoT technology.

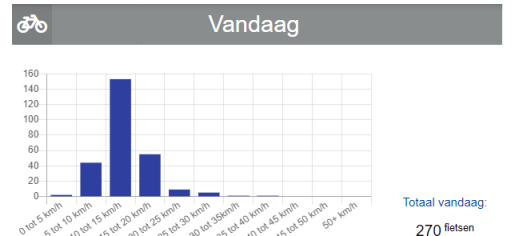
### LoRa

LoRa (Long Range) is a Low-power wide-area network (LPWAN) protocol which allows small data packets to be transmitted and received wireless. LoRa uses the (open) ISM frequency band. The technology can be utilized in a commercial LoRaWAN network or through your own private (local) LoRaWAN network.

### NB-IoT

NarrowBand-Internet of Things (NB-IoT) is a 3GPP based low power wide area (LPWA) technology that enables a wide range of new IoT devices and services. NB-IoT co-exist with mobile networks.

- Counting & vehicle type detection
  - Number of vehicles
  - Speed counted per categories
  - Vehicle classification (bike, car, truck etc.)
- Live traffic data / stored in the cloud
- Access via dashboard app:
  - Geographical overview of all Traffic Counts
  - Historical data of Traffic Count locations
  - Data export
  - NDW Dexter (traffic data updated in real-time)
  - Weekly report via e-mail
- Remotely configurable (customizable settings)
- Battery lifetime up to 5 years
- Easy to install (wireless, no 230V required)
- No maintenance & no monthly fee



The Traffic Count solution has many Use Cases in which it can be applied to, see the examples below:

**Count Cars & Trucks & Bikes.** Count all vehicles and vehicle types, including their speed. Policy makers and all people working in the traffic sector need to gain insight in the traffic in their city or village to make intelligent decisions. This is possible when you are able to live monitor the traffic flow, the speed and the busy hours characteristics.

**Monitor Parking Lot.** Know how many cars are parked in a parking lot by placing a Traffic Count at each entry/exit of the parking lot. The occupancy is calculated in the cloud and can easily be interfacing with your traffic management system to display the information publicly on the street (e.g. on a matrix display).

**(i)VRI & traffic lights.** Use the Traffic Count information in your traffic light Use Case with real-time vehicles and vehicle type detection. It is used in your (i)VRI to steer the Traffic Light (e.g. a single bike or group of bikes is approaching the junction at 25 km/h based on which a decision is taken). The information can be sent via UDAP (in case of iVRI) or directly to the VRI (wireless).

### Turn-key solutions

A full turn-key Traffic Count solution can be integrated *optional* in your environment as one of the JENG services.

### IoT PaaS

The Traffic Count service is processed in the cloud. JENG and partners offer an IoT Platform-as-a-Service in which your extended Traffic Use Case can be realized.

### Inhouse development

Other devices and IoT solutions can be in house developed in order to add value to your company.

### About JENG IoT

JENG IoT is a Dutch company designing full turn-key IoT solutions. From sensors, dashboard apps, data analysis till full integration in your IT infrastructure.

In case you are interested go to our website [www.jeng.io](http://www.jeng.io) for more information about our products and services.

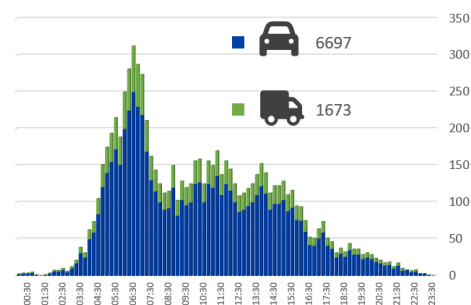
## Key Features

- Counting
    - Weight measurement technology via strips in road
    - Smart internal vehicle classification algorithm
  - Network technology: LoRaWAN or NB-IoT
- Battery technology: 3.6V Lithium-thionyl chloride
- Battery working time: up to 5 years
  - 10-year battery capacity optional

- Operating temperature: -25°C to 80°C
- Working environment: Outdoor
- Sensor
  - Weight measurement / Tire pressure
  - Installed in road
  - Lifetime as long as road lasts
- Recyclable
  - PCB and components
  - Battery

### AVAILABLE SERVICES

- IoT solutions (turn key)
- Full dashboard app
- Device development
- Technical support
- Online interface
- Advice and consultancy

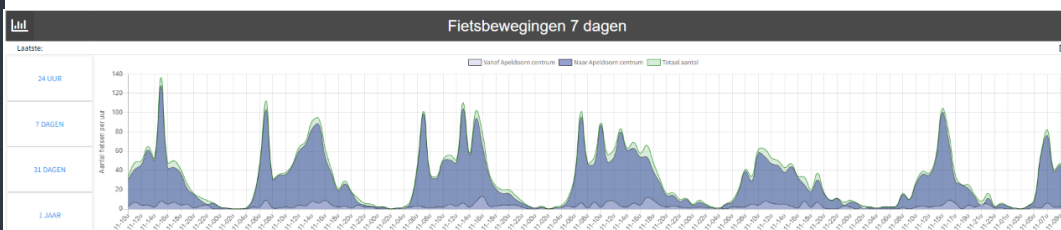


## Packaging

- Product Dimensions: 130 (l) mm x 70 (w) mm x 50 (h) mm
- Product Weight: 250 grams (incl. battery)

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This product is developed by **JENG IoT B.V.** (The Netherlands). The Traffic Count and dashboard app is continuously under development and the specifications and information as provided in this brochure are subject to change without notifications.