

SWARCO

GECKO BIKE

AUTONOMOUS TRAFFIC DATA ACQUISITION FOR BIKE DETECTION

BIKE DETECTION ON BICYCLE LANES OR IN TRAFFIC

Data on the use of cycle paths by bicycles, e-bikes or pedelecs and the corresponding increase in speed are essential for deciding whether or not an investment makes sense.

City planners who are responsible for the installation of new cycle paths, rely on real data as a basis for decision-making in their argumentation. By collecting and storing this data, you gain an overview of bicycle traffic.

GECKO BIKE

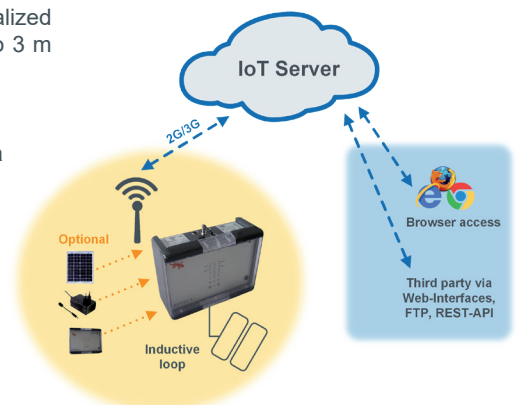
The Gecko system was developed especially for autonomous traffic data acquisition with battery supply and data transmission via mobile phone network. Gecko Bike is specialized in bicycle detection on cycle paths or in flowing traffic, both on a bicycle lane up to 3 m (Gecko1 Bike) and on a double lane up to 6 m (Gecko2 Bike).

Complemented by the cloud-based SWARCO-WEB-platform and WEB-interfaces, the Gecko system is already part of IoT (Internet of Things). Share the counting data with the public and promote awareness of bicycling or document progress through your cycling projects.

BENEFITS

- Speed measurement
- Simple, economic installation
- Inductive loops optimized for bicycle detection
- Low running costs for mobile communication network and provision of data
- Very low power consumption, self-sustaining for up to 12 months with battery operation
- Alternative: Operation with mains voltage or solar system, autonomous operation for 2 weeks (integrated rechargeable battery)
- Stable and reliable data acquisition, absolutely insensitive to weather and disturbances
- Vandalism-proof due to various installation options such as stand-alone, pole-mount or typically placed in the ground
- Verification of the data acquisition on location using vehicle readout at the service interface
- Web-based data provision: The data is available everywhere

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GECKO – AUTONOMOUS TRAFFIC DATA ACQUISITION




FUNCTION

Gecko now provides the functions and excellent features of the SWARCO inductive loop detectors in an autonomous system for bicycle detection. The core are the DIN-rail mount detectors, which were extended to include data transmission via mobile communication network.

Due to the considerable reduction of power consumption it is now possible to implement an autonomous data acquisition for up to 12 months using an easy-to-install detection system. The alternative connection to mains voltage or the optionally available photovoltaic installation allows permanent operation with an autonomy of two weeks when power supply fails (integrated rechargeable battery).

Traffic data are transmitted in aggregated form, the interval periods for data acquisition and transmission can be adjusted. Measurement and diagnosis data (e.g. ID of measurement location, state of battery, intensity of mobile communication network, loop failure, measurement frequency) can be accessed at any time via SWARCO-WEB-plattform.

ACCESSORIES

	Power supply unit for 230 V mains supply
	Solar panel Set for autonomous voltage supply
	Battery option with operating period of up to 12 months

COMMUNICATION AND EVALUATION

- Automatic wireless data transmission via mobile communication network modem to the SWARCO-WEB-plattform (SWARCO-cloud)
- WEB-based system for visualization, evaluation, documentation and export of counting values
- Data aggregation: Interval data separated by driving direction for number of bicycles and average speed

INSTALLATION

		
Standard installation e.g. for existing cabinets	Pole installation	Ground installation (typical for Gecko Bike)



TECHNICAL FEATURES

Power supply	Autonomous battery operation: autonomous time 12 / 6 months (Gecko1 / Gecko2) with mains or solar power supply autonomous time 2 weeks
Interval periods	Data acquisition: 3 / 5 / 15 / 30 min, 1 h - 12 h Data transmission 1 h - 24 h
Interfaces	Service interface Mobile communication network modem for data transmission
Operating temperature	-15°C to +65°C
Protection	IP67
Connections	Supply voltage (with external mains or solar supply) 4 (Gecko1) or 8 (Gecko2) inductive loops Service interface External mobile communication network antenna