

# SMARTSPECTOR **Stop!Detector**<sup>®</sup> and **Red!Detector**<sup>®</sup>

Trend-setting camera systems promote road safety



Two distinct versions of a trend-setting technology promote a multi-level approach towards road safety at high risk sites: Smartspector Stop!Detector<sup>®</sup> and Red!Detector<sup>®</sup> are based on a patented invention, wherein the course of a vehicle's movement is assessed and documented by tracking its number plate.

Knowledge about drivers' behaviour at junctions renders a vital basis for applying road safety measures. An evaluation has usually been carried out manually and thus by way of infrequent and barely reproducible random sampling. Experts have been inspecting and analysing complex scenarios, mostly by utilizing video technology and supplemental sensors.

The new approach allows for **continuous and objectified safety measures** and thus for a **significantly reduced accident rate at junctions, crosswalks and railroad-crossings** by improving procedures in three important domains:

- **Level 1 – Analysis:** Via meaningful trajectories, authorized experts can precisely and statistically firm assess the demeanour of road users, i.e. the risk exposure is isolated and alleviated in a precise and efficient way.
- **Level 2 – Warning:** By immediately indicating a traffic violation (e.g. by using a flashlight) the driver's attention is directed to the committed mistake. Awareness significantly adds compliance and hence contributes to road safety.
- **Level 3 – Enforcement:** A balanced combination with installations of same technology also for enforcement purposes assures, that even most of those drivers, who are usually insensible to pure awareness building measures, accustom themselves to an appropriate behaviour.

**Stop!Detector**<sup>®</sup> documents those passages at stop lines, which passed the detection range without stopping. By tracking and superimposing unique contours of the plate number, the whole passage is shown in a single, colour-coded image which allows a **reliable distinction between stopping and non-stopping vehicles**.

**Red!Detector**<sup>®</sup> correlates each vehicle passage with a related traffic light and **registers only those vehicles, which passed the stop line during the red light phase**.

Both the passage visualization and the implemented automatisms are leading measures to grasp more **detailed information about typical and individual driving behaviour** than with pre-existing products and applications.

The patented measurement principle defines a fully automatic system to **doubtlessly recognize stopping without speed measurement**, avoiding the constructive vagueness of any prior state-of-the-art technology.

The **extremely compact** systems operate **highly efficient** and **do not require any external sensors** (e.g. loops). Compared to Stop!Detector<sup>®</sup> and Red!Detector<sup>®</sup>, no third party equipment shows a similar degree of system effectiveness for the given scope of operation. By this means, the new instruments are **handled and operated more swiftly than other available systems**.

The instrumentation can be operated in a fully anonymous manner **without a special permission regarding privacy protection standards**. Optionally all personal data is reliably anonymized by means of **lanus™-technology**, i.e. **no individual-related data is stored or output**.

The proposed traffic sensors are reliable instruments for enhancing road-safety. The conceptual formulation emanated from inventory taking in the field of high-risk-site monitoring. The whole design phase has been carried out in close coordination with data protection authorities and with road-safety experts. With this approach, all traffic participants may recognize the instruments as a reasonable contribution to protect everybody's personal health.



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