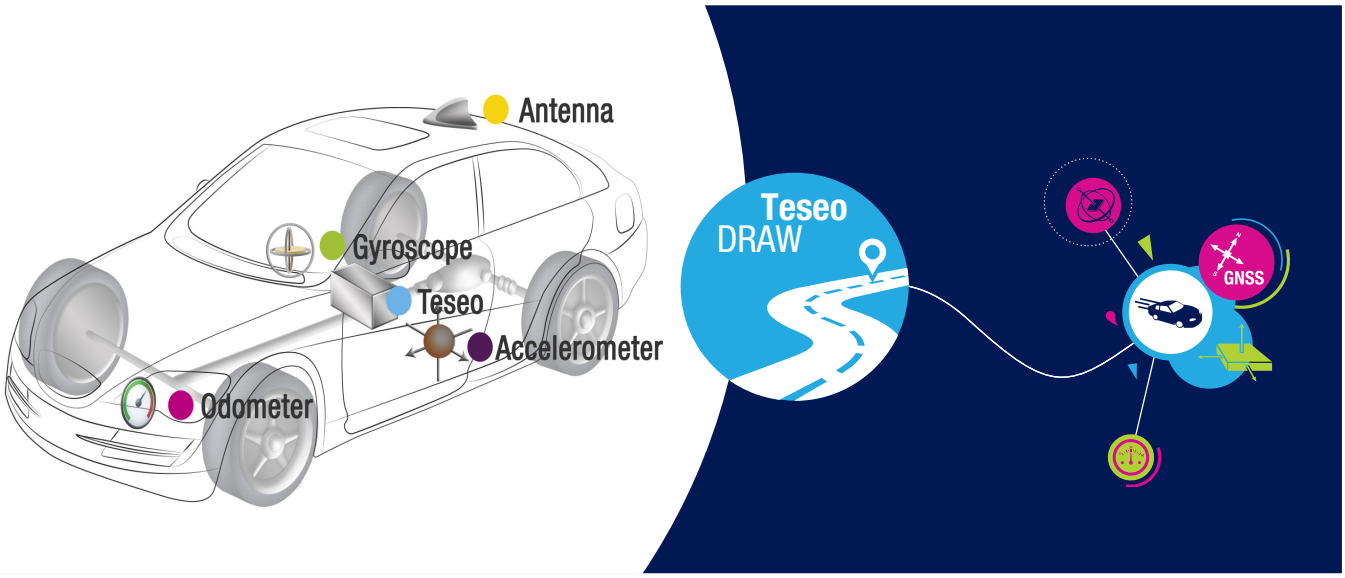
TESEO-DRAW
Dead Reckoning Automotive Way



TESEO-DRAW firmware is a multi-sensor data fusion hub for ST's Teseo family of ICs. Thanks to filtering and predictive algorithms, TESEO-DRAW augments the user's positioning experience in terms of accuracy and availability, especially when the GNSS signal is degraded by environmental conditions (tunnels, urban canyons, indoor parking and multilevel highway junctions).
The vehicle's position, height, heading and velocity are calculated using a Kalman filter, which fuses information coming from GNSS satellites with data coming from sensors such as gyroscopes, accelerometers, odometers and temperature sensors. TESEO-DRAW is provided bundled with ST's Teseo II and III GNSS multi-constellation receiver ICs.

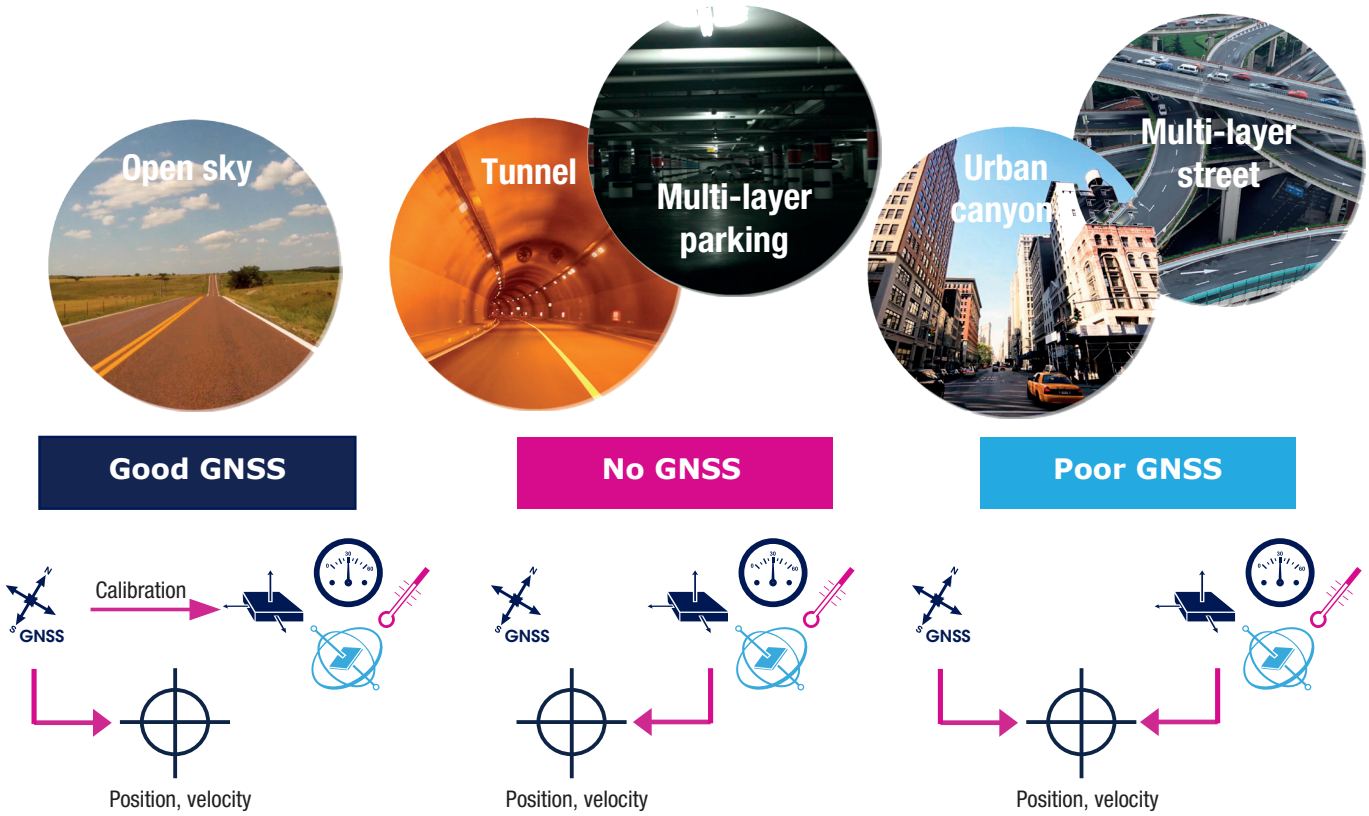
KEY FEATURES

- Flexible solution, supporting different configurations:
  - Classic
  - CAN gyroscope
  - Mixed
  - Differential Wheel Pulse (DWP)
- Sensors over UART
- Free mount capability
- Automatic sensors and temperature compensation
- 3D dead reckoning
- Map matching feedback

TARGETED APPLICATIONS

- Emergency call (eCall and ERA-Glonass)
- In-dash navigation
- Usage-Based Insurance (UBI)
- Anti-theft
- Car-to-car communication
- Fleet management
- Open road tolling (ORT)
- Vehicle tracking

USE CASES



FIRMWARE CONFIGURATION

NAME	YAW RATE SENSOR	DISTANCE SENSORS	OTHER SENSORS
CLASSIC	MEMS gyroscope	Discrete odometer	Discrete reverse signal
CAN GYRO	CAN gyroscope	CAN odometer	3-axis accelerometer
MIXED	MEMS gyroscope	CAN odometer	Temperature sensor
DWP	CAN Differential Wheel Pulses	CAN odometer	CAN reverse signal

EVALUATION TOOLS

TESEO-DRAW firmware is available on demand and works in combination with any Teseo evaluation kit.