ABOUT US

Ibeo Automotive Systems GmbH, the global technology leader for automotive LiDAR sensors (English acronym for Light Detection And Ranging) and associated products and software tools, was founded in 1998. Since then, Ibeo develops Autonomous Driving (AD) systems and is therefore a pioneer in this field. As early as in 2007, Ibeo participated at the DARPA Urban Challenge in California with a driverless car. In preparation for this competition, Ibeo was the first company to receive a road approval for an autonomous car in the USA. With over 20 years of experience, the Ibeo Autonomous team has worked together with reputable partners in research and industries. At the moment, around 400 engineers pioneer the future of autonomous mobility at the headquarters in Hamburg, Germany.

Our solution

The Ibeo Autonomous solutions convince with state-of-the-art sensor technology and cutting-edge software.

The IbeoNEXT Solid State LiDAR sensor is part of any sensor setup. This new generation of solid state LiDAR comes without any moving parts and convinces with a high vertical and horizontal resolution and long range.

The perception software ensures the high-precision recognition of the environment through the data fusion of various LiDAR sensors and other sensor technologies. The specific Ibeo Autonomous software modules on the electronic control unit (ECU) processes the data and passes on appropriate instructions – for example, steering, braking, or acceleration – to the actuation systems of the vehicle. Thereby, the system can be integrated on numerous vehicle platforms in various architectures and is deployable on public roads.

All Ibeo Autonomous solutions target a level 4 autonomous driving system.

Why Ibeo Autonomous?

- hardware and software from one provider
- more than 20 years of experience in AD systems with test vehicles
- automotive grade components
- flexible solution adaptable to different vehicle platforms
- modular and highly integrable in customer architectures

Ibeo PathFollower

Our path system automates vehicles on a defined virtual rail. Depending on the use case, Ibeo’s basic automation solution comes either with a trajectory teach-in with collision avoidance by braking or is able to drive around objects within a defined corridor. The real advantage of the system lies in its simplicity, which allows almost limitless possibilities in vehicle automation.

This AD solution is ideal for

- recurring transportation tasks
- automatization tasks with fast deployment and regular customization needs
- public transport trials and demonstrations
- showcases for concept cars and car exhibitions
- accurately repeated test runs of “Devices under Test” (DuT) and interacting vehicles

Ibeo Driver

Our full performance AD system enables automated operation of vehicles in complex road-like environments. With this Ibeo Autonomous solution, the vehicle is able to handle intersections, lane changes, all curve radius and overtaking vehicles as well as vulnerable road users, like pedestrians.

This AD solution is ideal for

- automotive R&D processes
- logistics and Industrial AD Pilots
- early adopters in transportation of people and goods
- new mobility concept studies
- benchmarking systems for performance comparison as well as evaluation and AD module development
THE ibeo.AUTONOMOUS SYSTEMS STAND OUT DUE TO THEIR **HIGH CONFIGURABILITY** ACCORDING TO THE **INDIVIDUAL NEEDS**. THE CUSTOMERS CAN CHOOSE A **VARIABLE NUMBER** OF SENSORS THAT FITS TO THEIR APPLICATION. FURTHERMORE, THE ibeo.AUTONOMOUS SYSTEM IS **ADAPTABLE** TO ALL DIFFERENT KINDS OF VEHICLE PLATFORMS – FROM PEOPLE MOVER TO LOGISTICS VEHICLES.

Interested in our ibeo.Autonomous solution?

Contact our inside sales team today!

▶ autonomous@ibeo-as.com