

TRUCKCAM FACTORY SYSTEMS

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# AXLE ALIGNMENT



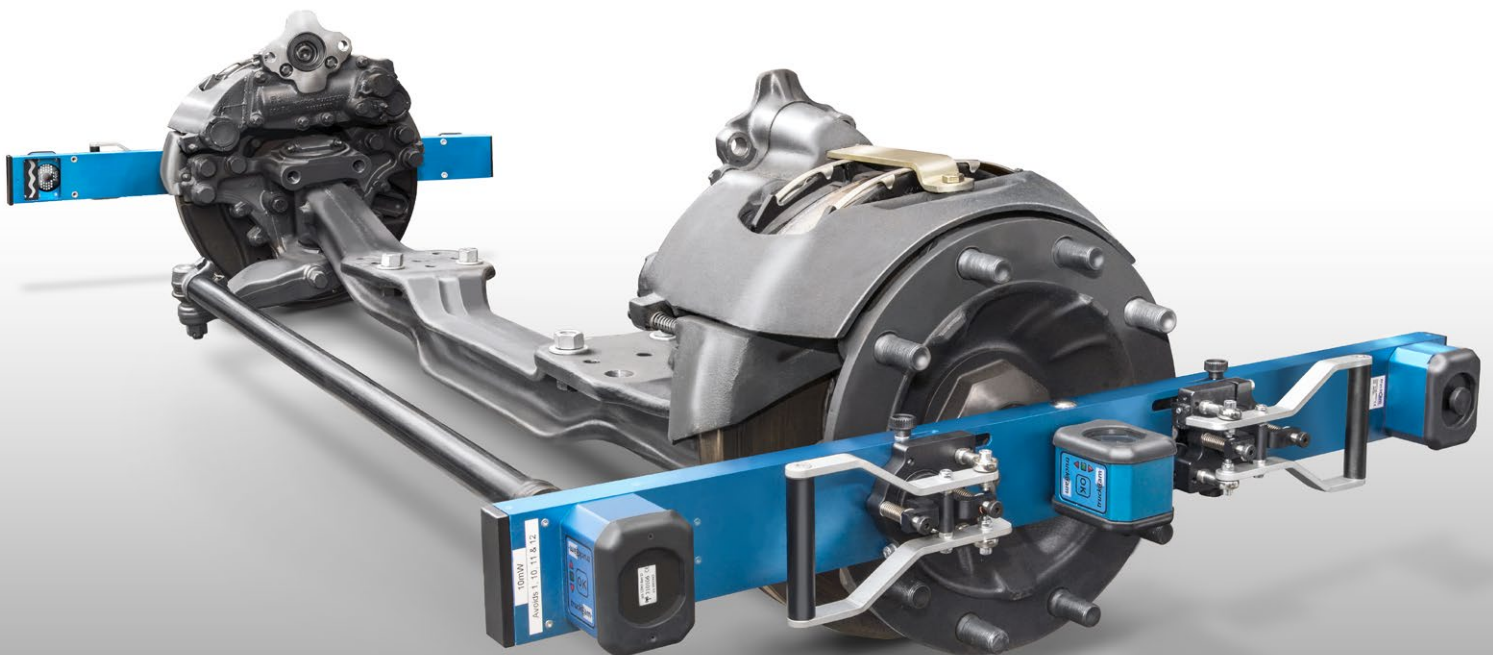
# INTRODUCING: TRUCKCAM AXLE ALIGNMENT SYSTEM

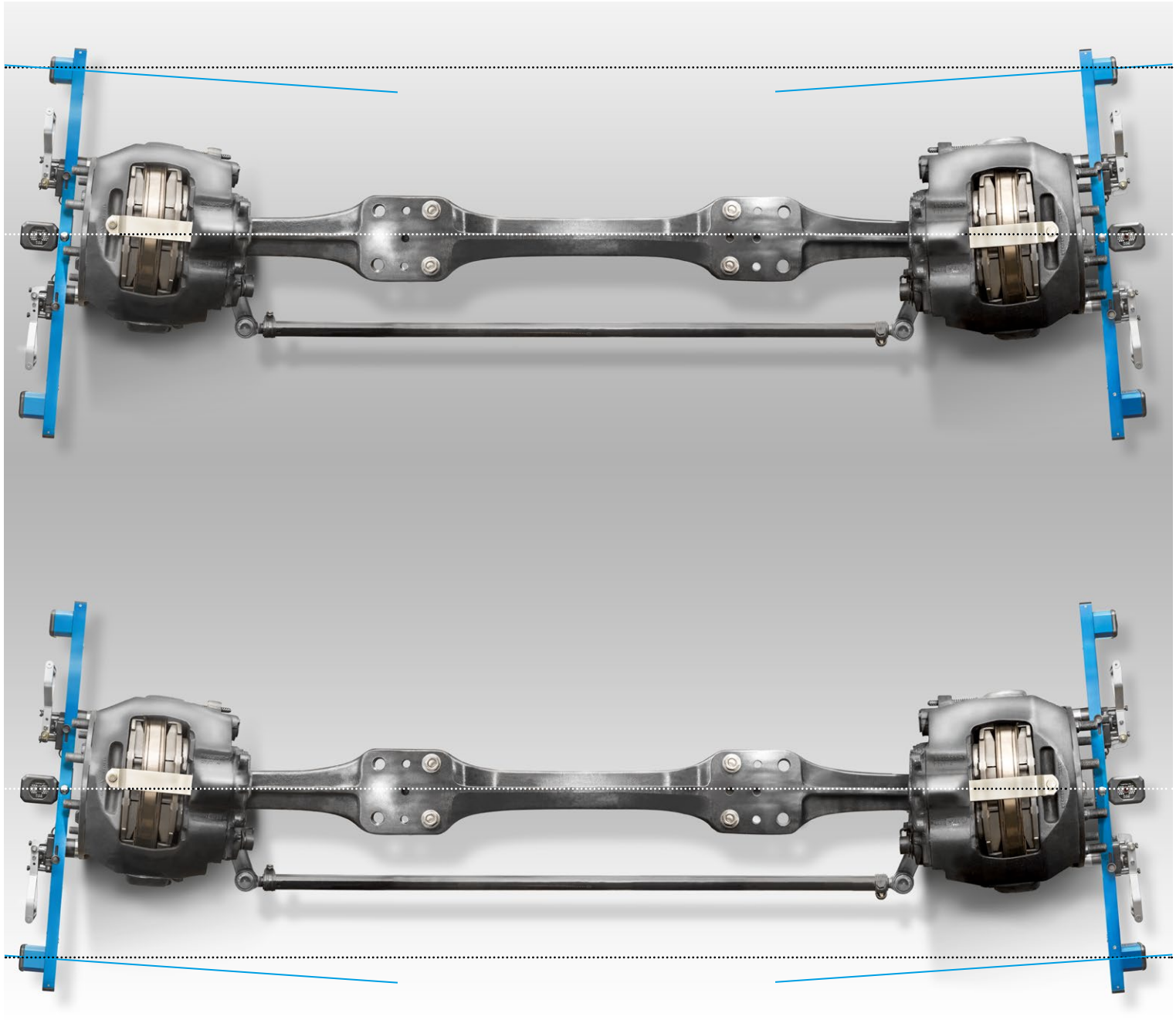
**THIS SYSTEM IS DESIGNED** for axle manufacturers to pre-align toe-in. The efficient and durable design of the system allows it to measure toe, camber as well as max turn individually on both sides.

As the system is self-calibrating in every measurement cycle, it generates values with extremely high accuracy.

**THE SYSTEM IS VERY EASY** to install on the flow of an axle assembly line, as it requires very little floor space.

The main components of the system consists only of two adaptors placed on the axle combined with a PC.





## MEASUREMENT PRINCIPLE

**THE TRADITIONAL WAY** of measuring toe on an axle not yet mounted on a vehicle is to measure the distance from left to right on the front side and on the rear side of the axle. The difference between these values determines toe-in or toe-out.

**TRUCKCAM MEASURES** in a completely different way! As the cameras themselves measure

angles, the TruckCam system operates independent of distances between axle hubs or hub adaptors, by measuring the individual toe value for each hub.

**AS THESE MEASUREMENTS** are taken both in front of and behind the axle, any static measurement errors will be eliminated, hence making the system self-calibrating.

# MEASURING WITH THE TRUCKCAM AXLE ALIGNMENT SYSTEM

**THE OPERATOR STARTS** by entering required data, for example axle identification number.

Camera hub adapters are mounted on the axle hubs and, optionally, an inclinometer can be mounted on the axle beam. This inclinometer is used to check the angle of the axle beam to give the system a reference to measure from.

**THE CAMERA HUB ADAPTERS** are positioned with the cameras looking at each other.

By pressing one of the OK buttons the operator gets the first measurements of toe-in and straight ahead position.

A rough adjustment can be made if the initial measurement values are far out of tolerance.

**THE OPERATOR ROTATES** the hubs 180 degrees, positioning the cameras on the other side of the axle. Again, the OK button is pushed and the system calculates calibrated measurement data with high accuracy.

Final adjustments of the axle can be made which then will be stored in a database. These stored data can be used for quality control purposes.

**OPTIONALLY, AN INTERFACE** to the torque runner used for clamping can be incorporated in the system. With this feature it is only possible to finish an alignment process when the required torque is achieved and the measurement value is within tolerance limits.





## ZERO CALIBRATION OF HUB ADAPTORS AND INCLINOMETER

**THE TRUCKCAM AXLE ALIGNMENT SYSTEM** is self calibrating.

A zero calibration of the rotation inclinometers in the camera hub adaptors needs to be done with regular intervals to ensure the accuracy of the measurement plane. The system includes software

# MAX TURN OPTION AVAILABLE

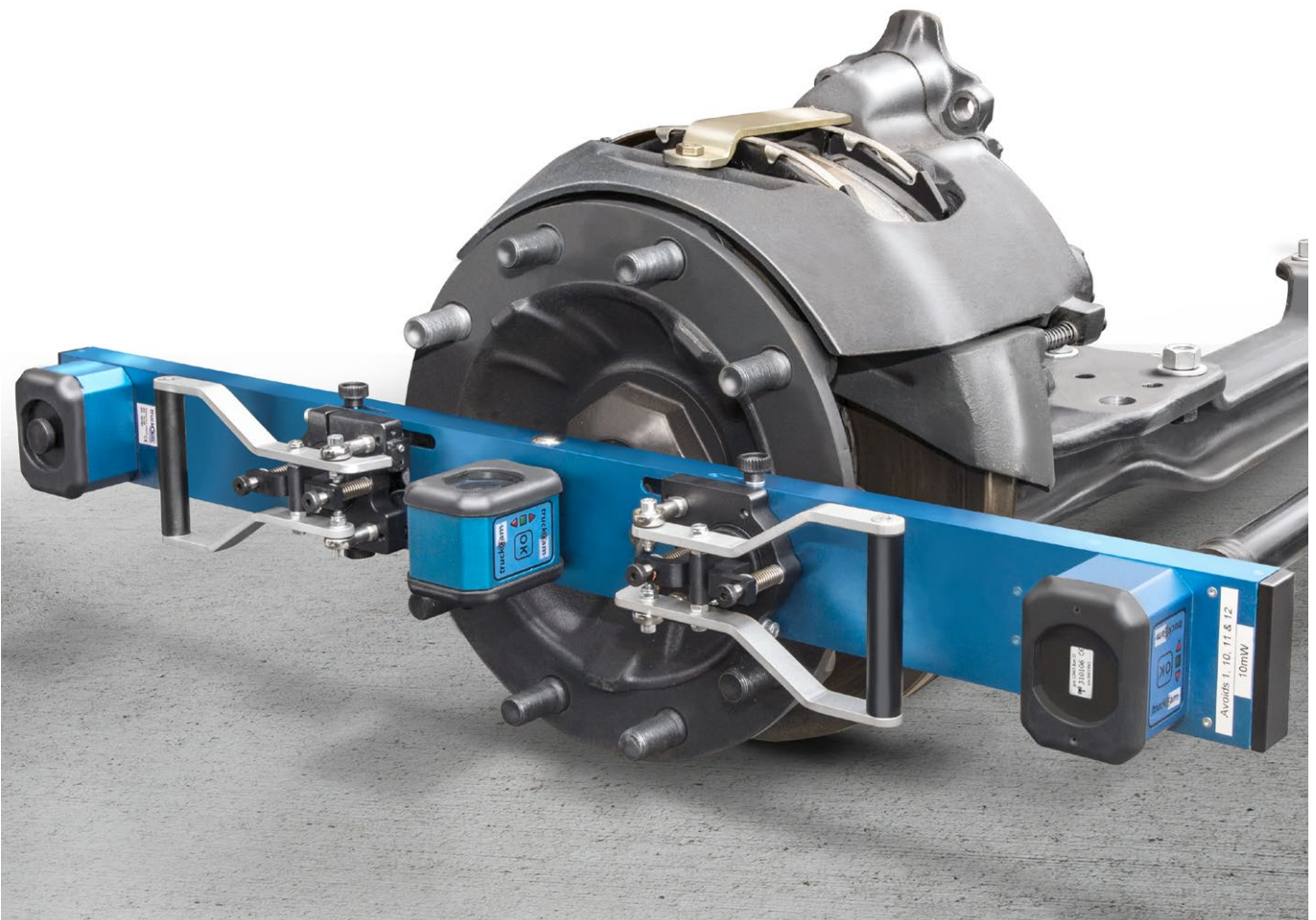


**THE TRUCKCAM AXLE ALIGNMENT** system is available with the option to measure max turn as well as toe in.

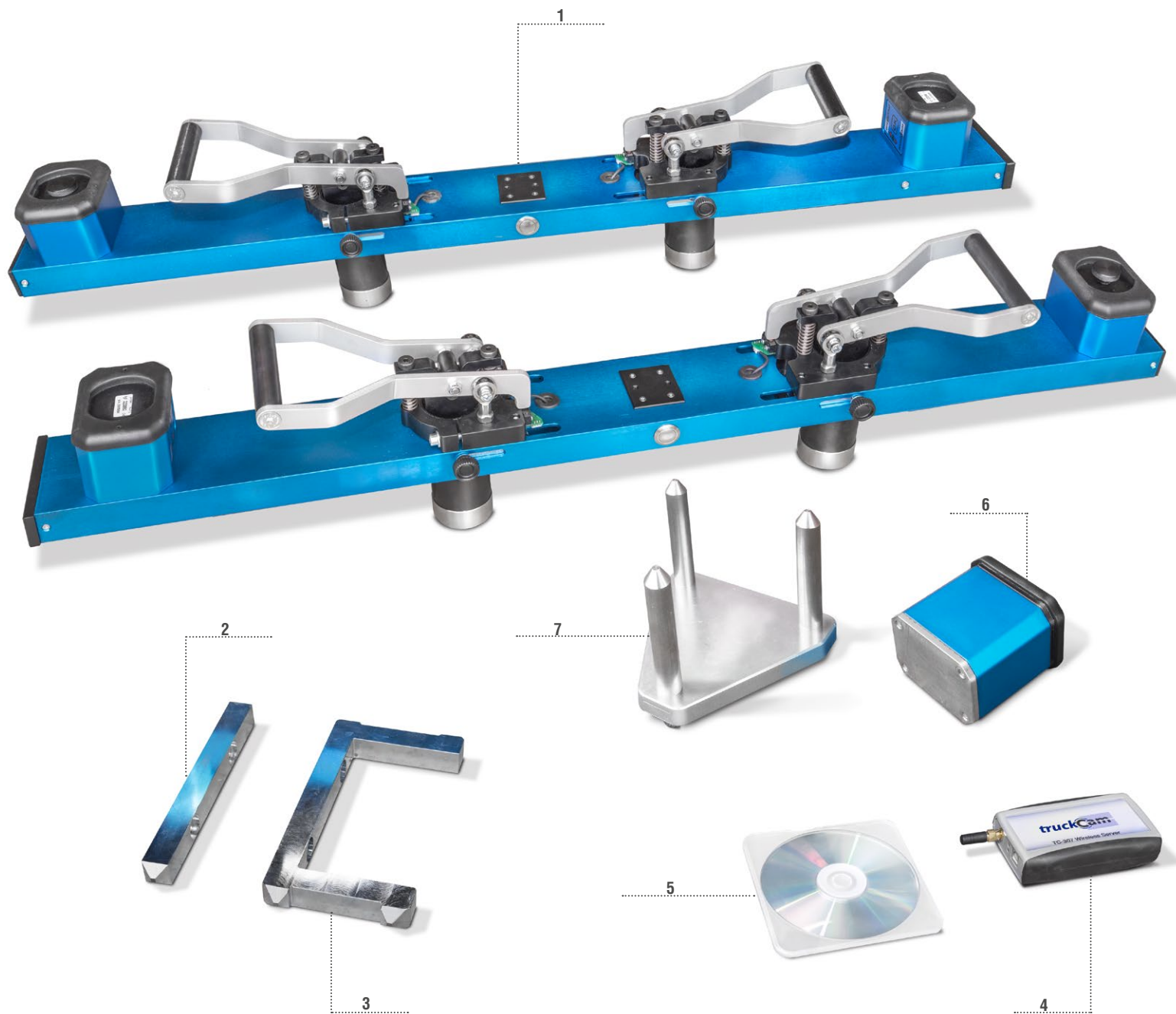
With this feature included in the system, the operator first complete a toe measurement. By following the instructions on the screen the operator then turns the axle to the maximum

right and adjusts as necessary, then turns the axle in the opposite direction. When both values are within tolerance limits, the system saves all measurements in a database and the system is ready for the next axle on the line.

This is all completed in a matter of minutes.

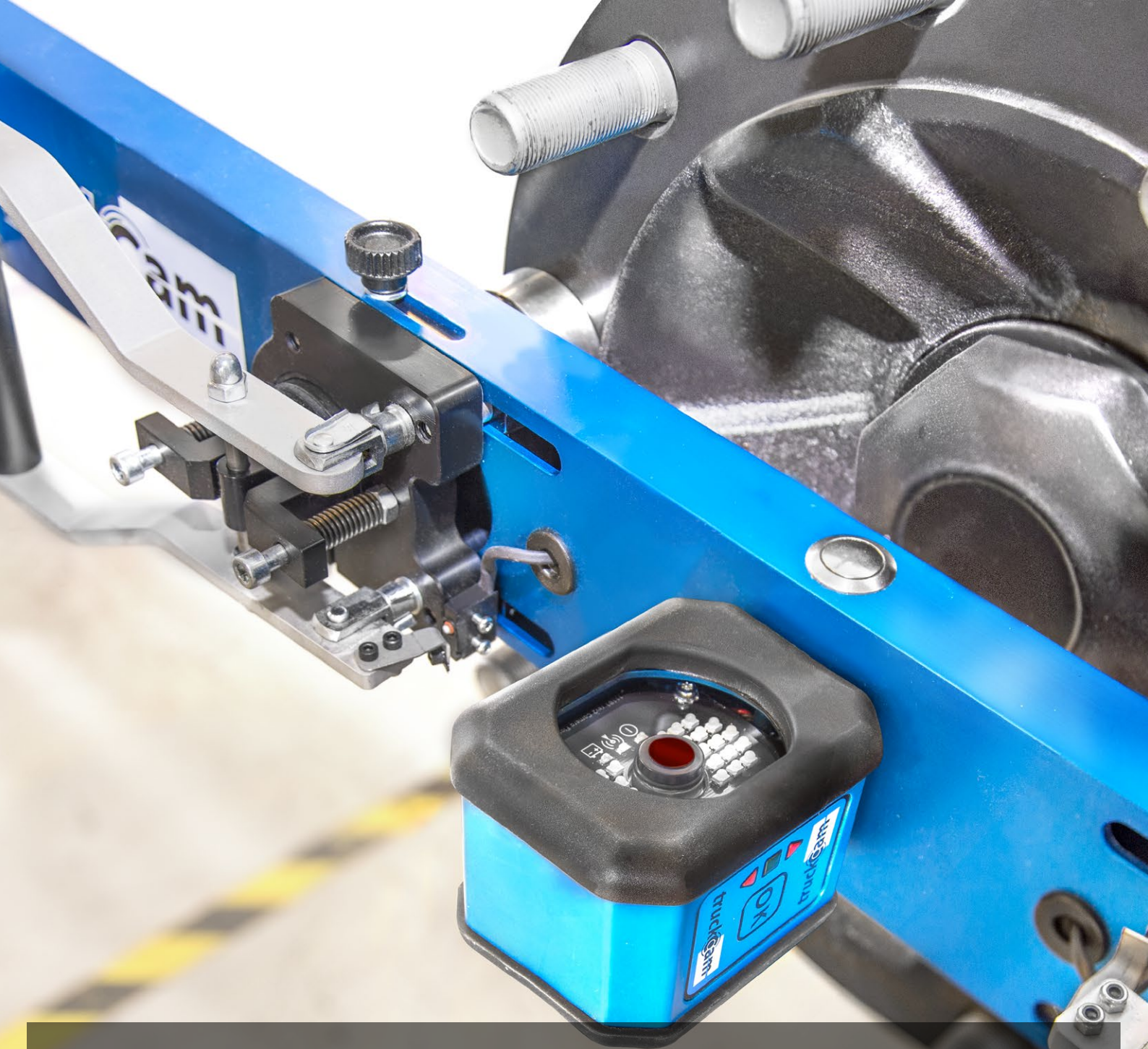


# TRUCKCAM AXLE ALIGNMENT SYSTEM



ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
1.	Camera Hub Adapter		2
2.	Calibration Stick	12639	1
3.	Calibration Hoop	12638	1
4.	Wireless Server	TC-306	1
5.	Software	TC-700	1

ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
<b>OPTIONAL</b>			
6.	Axle Inclinometer	TC-264	1
7.	Calibration tripod fixture	10390	1



- Wireless communication
- Self-Calibrating in every measurement cycle
- Complete documentation of every vehicle in a database
- Secure process by easy step-by-step software
- Measurements can only be ended and stored when all values are within tolerance
- Very short cycle time

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