

BirdView Software

Guidance and InRow
Technology for Cultivation Tools





AI Plant Detection

Weather conditions, weed pressure, or pests—thanks to artificial intelligence, our software reliably controls your machine. Easy to operate



Simplest Operation

The revised interface is as user-friendly as a smart-phone. The system can be used by people of all ages.



The Right System

Slopes, ridge cultures, section control, specialty crops. We have the right software for every application.



Spare Parts & Support

The harvesting season is short, and during this time, the machines must function at 100%. Manufacturer support and immediate availability of spare parts are a given.



SMART AGRICULTURE

Reliable Guidance even under difficult Conditions

Our camera-based guidance systems for cultivation tools enable precise and fast work with easy operation. Thanks to modern detection, our software is the right choice, whether for a small-scale operation or a contracting company.

EFFICIENCY AND COMFORT

„BirdView“ - Next-Generation Guidance

Our BirdView Software combines 10 years of field experience with the latest technology. AI single-plant detection, curve detection, and over-the-air updates are just a few of the latest features included in the BirdView Software.



Robust 10.4-inch user terminal with touch-screen and built-in WiFi module for over-the-air updates. With M12 screw connections and soft-touch buttons at the bottom of the screen for even easier operation.



Powerful and robust control module for evaluating connected sensors and controlling various outputs. ENSIO software runs on this module to perform various functions more quickly (centering, row buttons).



3D camera for evaluating the height profile of plant rows and curve fitting. It can also be used for classic plant detection. The camera has very high resolution (4032x3040), allowing it to detect even the smallest plants.

WIFI MODULE INCLUDED

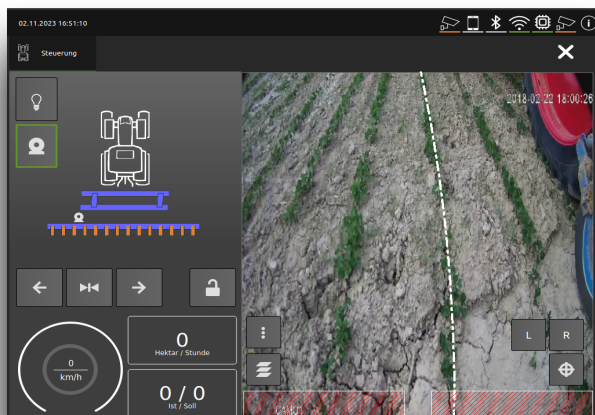
Stay Up to Date with Over-the-Air Updates

All our terminals are equipped with at least one WiFi interface, through which updates can be automatically downloaded. Alternatively, we also offer the option to integrate a 4G module with a SIM card directly. This way, you can continuously benefit from product expansions and improvements.

FASTER AND MORE ACCURATE

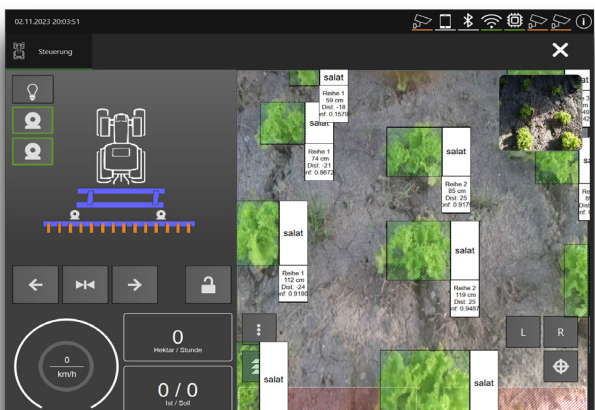
Every Centimeter Counts!

Thanks to multi-row and curve detection, we can keep the cultivation tool even more precise in line. While other systems measure a line through the rows, we can also determine the curve radius, allowing you to combat weeds even more effectively!



Curve Detection

The software detects curves and doesn't just calculate the average, ensuring even more precise operation in headlands!

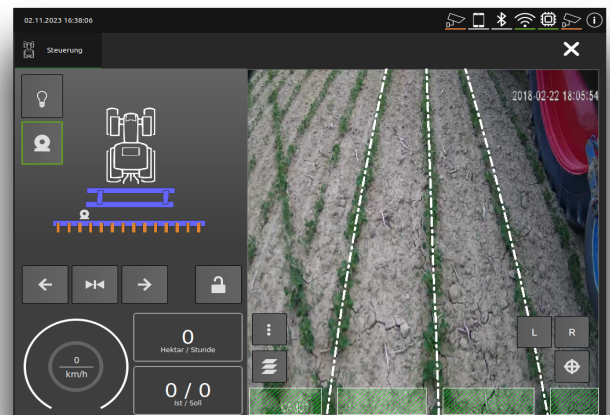


Detection through AI

Our AI is trained to distinguish the cash crop from weeds even under the most challenging environmental conditions.

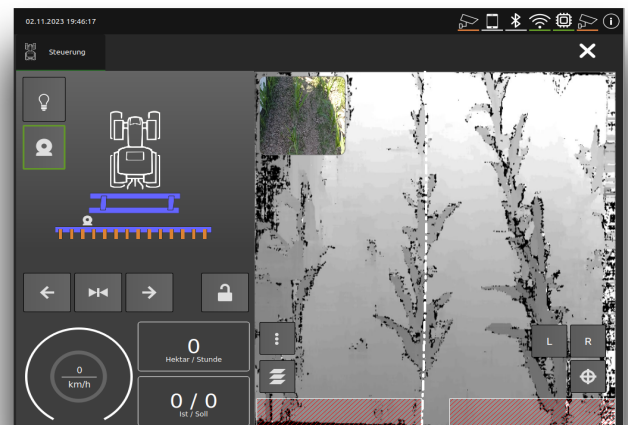
Multi-Row Detection

With gappy stands and the smallest leaf stage, your machine can still accurately navigate between rows, even without a second camera.



3D Height Profile Detection

The plant and ridge detection are based on the height profile. The camera recognizes the difference in height and steers accurately between the rows or ridges.



PRECISION EVEN UNDER CHALLENGING CONDITIONS

The Right Software for every Application

3D height profile detection for ridge detection, AI detection for heavily weeded stands – we have the right solution for every customer! Our height profile detection allows precise machine control even when no plants are visible (e.g., perennial herbs).



ALL-IN-ONE SOLUTION

Complete Guidance System, regardless of the Cultivation Tool

We also offer pre-configured complete systems for farmers or small equipment manufacturers, regardless of whether a shifting frame, lower linkage, or steering wheels are to be used.



Parallel Shift Frame

Thanks to the parallel shift frame, the load on the tractor is reduced, while providing an additional field of view for the camera.



Lower Linkage Control

Lower linkage control is a cost-effective alternative to shifting frames but requires individual adaptation and offers only a small shift range.



Linear Shift Frame

The classic shift frame, as offered by various manufacturers, allows for a very compact attachment.



Steering Wheels

Steering wheels provide a good alternative to conventional options, but there are trade-offs in terms of maximum accuracy.

CONTINUOUS DEVELOPMENT

Curve Accuracy, not just a concern at the headland

Depending on the pivot point of the machine, small curves can lead to inaccuracies in the hacking result. The narrower the hacking band needs to be, the more important it is to consider these curves. Thanks to customer feedback, our BirdView Software can determine the curve radius and guide the machine accurately.





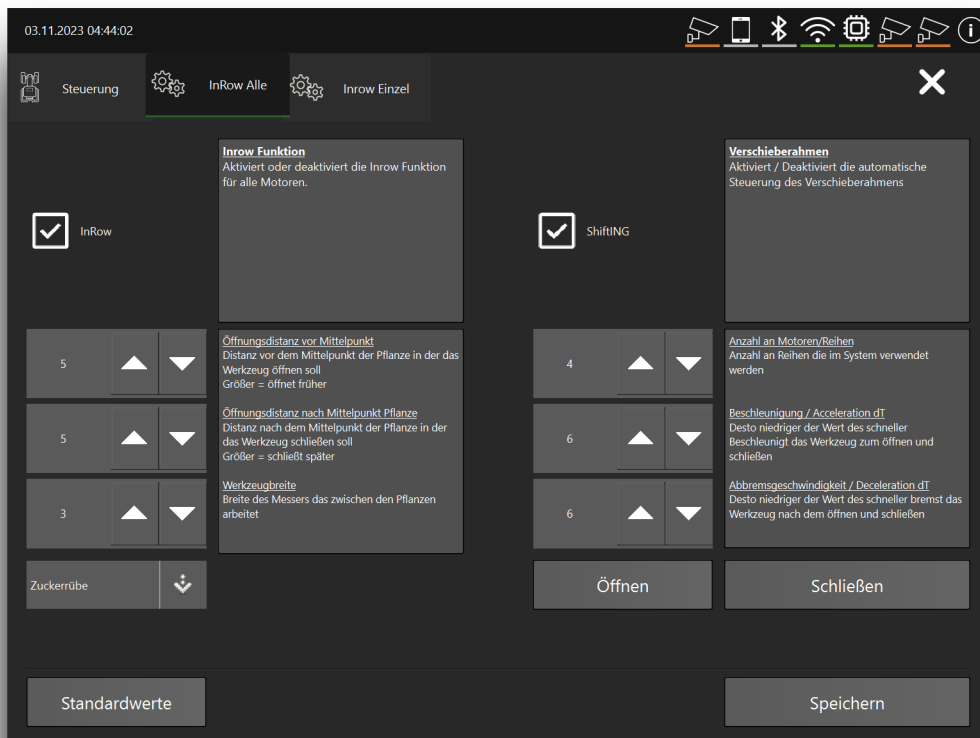
CONTINUOUS DEVELOPMENT

Inclination Sensor, automatic Slope Correction

Even with additional stabilizing discs, almost all cultivation tools tend to drift downhill. Depending on local conditions, we recommend using an incline sensor. We have achieved significant improvements in measuring inclination thanks to an additional acceleration sensor in the camera.

BirdView for InRow Cultivation

No matter how narrow the hacking band is, thanks to camera control, weeds still remain between the plants. Depending on the crop, finger wheels can help, but there are many crops where manual labor is still necessary. Our BirdView Software can also be combined with InRow tools. Thanks to AI, the software recognizes the center of the cash crop and allows for effective weed removal between the plants.



InRow Settings

In this submenu, the crop to be hacked, the hacking distance around the center of the plant, and the number of rows can be selected, for example.



Electric Tools

Electric tools, in addition to their fast response time, also offer adjustable opening/closing speeds, which reduce soil displacement.



Pneumatic Tools

Pneumatic tools are fast and cost-effective but require their own compressor.



Hydraulic Tools

Hydraulic tools have the most power, allowing for deep cultivation.



Cultures

The following crops have already been tested: Sugar beet, corn, lettuce, sage, strawberry, sorrel, rice, sunflower, pumpkin, primrose, arnica, red cabbage.

MANY POSSIBILITIES - ONE SOFTWARE

InRow - The Future of Cultivation?

InRow technology has been successfully used for some time in specific crops. However, these systems have previously only reliably worked in row crops. Thanks to modern software and AI detection, our BirdView system can now be used in crops such as sugar beet.

A000246



Control Module

Control module for evaluating connected sensors and controlling valves.

A000199



Panel PC

Robust 10.4-inch user terminal with touchscreen and integrated WiFi module.

A000248



Protective Case

Case with a suitable foam insert for secure shipping and storage.

A000208



OKIO Kamera

Full HD network camera with adjustable mechanical zoom for plant row detection.

A000247



Orlaco Emos

Robust camera with fixed lens and high frame rates (60fps). Waterproof IP67.

A000249



OAK-D 3D Camera

3D camera for evaluating the height profile of plant rows and curve fitting.

A00028



B I O

Incline Sensor

Measures the inclination and determines automatic slope correction for the cultivation tool.

A000500



B I O

2nd Camera

Expansion for a second camera in the case of section control or crops with very large plant spacings (e.g., pumpkins).

A000191

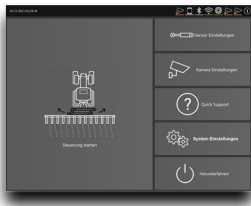


B I O

Wireless Presenter

Wireless presenter for controlling the shift frame, making it easier to set up the machine.

AXL00100



B I O

BirdView Software

Software package with curve detection, AI detection, and multi-row detection.

AXL00105



B I O

OKIO Software

Software package with standard detection algorithms.

LEGENDE

Compatible



Not compatible



BirdView



InRow



OKIO



OVERVIEW OF MAIN COMPONENTS

BirdView Components - Configuration Options

Depending on the use case and budget, we recommend different product configurations (e.g., incline sensor and second camera).

The list provided above contains a selection of our product variations.

