naïo Technologies

THE FIRST FLEET OF ELECTRIC ROBOTS, 100% AUTONOMOUS, COMMITTED TO SUSTAINABLE AND EFFICIENT AGRICULTURE

2025 PRODUCT CATALOG

Design, layout and printing : Chirripo

FARMERS ARE THE HEART OF THE NAÏO STORY

For over ten years, Naïo Technologies has been developing, designing and marketing 100% electric, autonomous robots designed to assist farmers in their daily tasks. These robots help reduce workloads, optimize farm profitability and limit the use of chemicals.
At Naïo Technologies, we attach the utmost importance to cultivating close relationships with our customers, distributors and technical partners. We are actively contributing to the agricultural sector's transition towards more sustainable models, by offering innovative products that respect people and the environment.

LONG-STANDING TECHNICAL PARTNERSHIPS

Since the creation of our first OZ robot, our entire range has been co-developed in close collaboration with renowned producers and technical institutes. Among those who have been with us for many seasons are the CIVC (Interprofessionnal Champagne Wine Institute), the IFV (French Wine Institute), the Brittany Agricultural Chamber, UC Davis in California and other partners.

"The arrival of RTK guidance on OZ enabled working on a complete route: sowing, hoeing, ridging, transporting loads. We let it work by itself, without fear, which reduces the mental workload."

Christophe GIRARD
Technician at Brittany Chamber of Agriculture

"TED has evolved from its early versions to deliver exceptional accuracy and work quality on the row. It is a valued solution among winegrowers and stands out for its efficiency in almost every situation."

Christophe GAVIGLIO
Experimentation Engineer at the French Wine Institute (IFV)

NAÏO, A PIONEER IN SUSTAINABLE AGRICULTURE

Naïo is a B Corp-certified company with a mission to make sustainable agriculture a global reality. At the forefront of virtuous agricultural practices, Naïo played a key role in the launch of the Dividendes Climat in France, an extra-financial standard evaluating the greenhouse gas emissions avoided. Thanks to our four robots, nearly 2,000 tons of CO2 have been saved since we were founded.

A REAL SUPPORT FOR THE AGRICULTURAL ROBOTICS SECTOR

Naïo Technologies originated the International Forum on Agricultural Robotics (FIRA). This global event is dedicated to agricultural robots and autonomous field solutions. Naïo is also involved with the Robagri association in France and, at a European level, with CEMA, both of which are driving progress in agricultural machinery.

RECOGNISED INTERNATIONAL STANDARDS AND POLICIES

At Naïo Technologies, environmental awareness goes hand in hand with particular rigour in terms of technical regulations, safety and user training. Powered by electronic boards manufactured in France, where the robots are built, our range is CE and FCC (US telecommunications standard) certified.

Certified B Corporation · CLIMATE DIVIDENDS · CE · FC

110 000
hours of autonomous work

480
ROBOTS SOLD
all made in France
present on
5 CONTINENTS

62 TONS OF CO2 SAVED
thanks to the use of a TED over 5 years

100%
ELECTRICAL

OVER 40 AUTHORIZED DEALERS TO SERVE YOU

We build partnerships with the most reliable dealers around the world who share our taste for technological, easy-to-use machines. Most of our distributors have a division dedicated to precision agriculture or viticulture. Their expertise in mapping and GPS self-guidance is complemented by our team of field technicians. This joint work is put in place after the teams of our approved dealers have undergone thorough training on all Naïo solutions (hardware, software).

Naïo Technologies robots are distributed by 40 distributors in Europe as well as in the United States, Canada and South Africa. Everywhere else, Naïo Technologies is at the service of producers, advising them on how to choose their robot and the right tools.

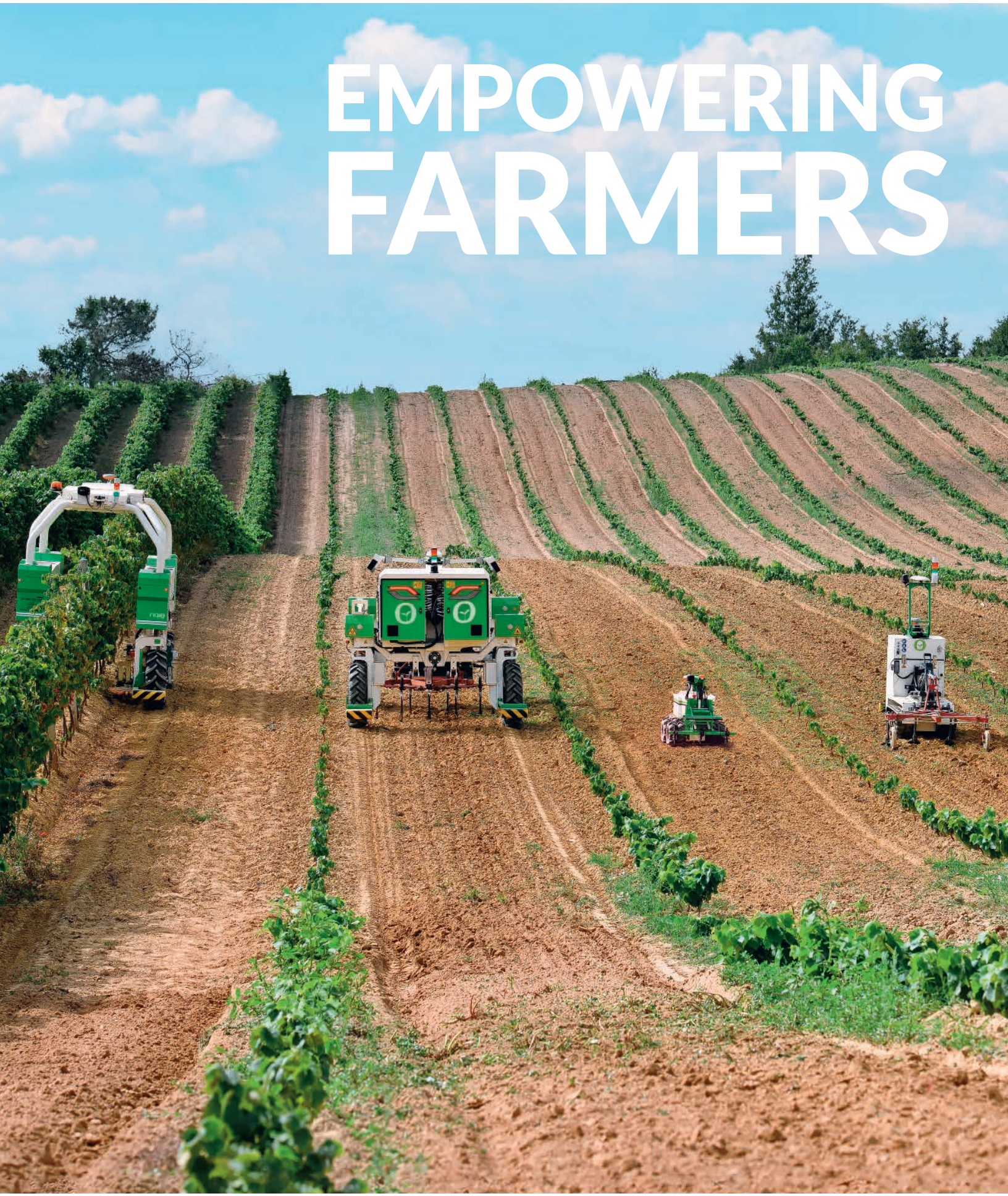
WE SHARE A CLEAR GOAL:
to provide you with the best support and to be most attentive to your needs.

DEMONSTRATION, TRAINING, SUPPORT: A TURNKEY SERVICE

Naïo's approved dealers provide a comprehensive service to ensure the best possible experience with our robots. They host public and private demonstrations, showcasing the machines' capabilities in real-world conditions. They provide personalized training so you can take full control of your robot quickly and efficiently.

Finally, they remain by your side for ongoing after-sales and technical support, helping to maximize the performance and durability of your equipment throughout its service life.

EMPOWERING FARMERS



INNOVATING TO MAKE PRODUCERS' DAILY LIVES EASIER

Innovation is our driving force. With a portfolio of over 15 patents, we work tirelessly each day to make life easier for our producers, providing them with increasingly efficient and versatile robots, as well as an ecosystem of tools offering greater autonomy and secure robot management.

INNOVATE TOR

1. **Free up time and reduce labor intensity** *with 100% autonomous machines*
2. **Optimizing** *efficiency and performance for farms*
3. **Offer ever greater versatility** *thanks to a large choice of implements*

4 ROBOTS FOR MAXIMUM SOLUTIONS

In addition tos providing tailor-made support for its customers, Naïo offers **the largest fleet of autonomous, multi-purpose electric robots in the world**. All of our robots come with a 5-year warranty - a premiere in the sector - and are designed to fit with a wide range of plot configurations in a variety of terroirs.

The assistant OZ, the crawler JO, the straddler TED tool-carrier ORIO all have one thing in common: they are **multitaskers**. Standard attachments make our robots **compatible with many farm implements**, so that our customers' common sense and know-how do the rest.

THE NAÏO ECOSYSTEM

With over 10 years of innovation, 15 patents filed, and a network of more than 40 distributors worldwide, Naïo Technologies offers the most advanced technology on the market.
It unlocks the full potential of robots in the field, all while maintaining the highest safety standards.
The software ecosystem currently consists of two main solutions:

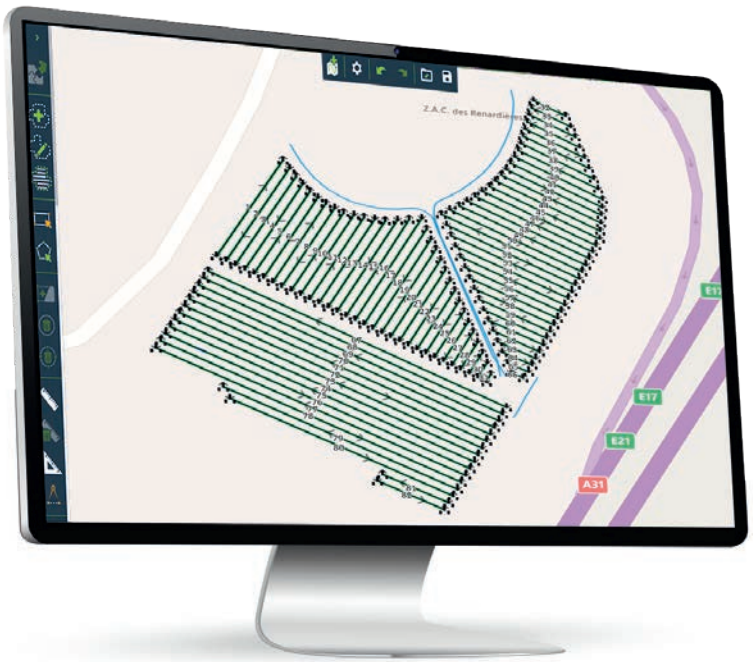
EASY MAPPING, a simple, accurate solution for creating optimized maps.
NAÏO COMPANION, a mobile app for easy robot management.

EASY MAPPING, THE MAPPING GENIUS

Our EasyMapping software provides a wide range of advanced mapping options, including:

- **Optimized mapping:** survey the outer edges of the plot, define the inter-row distance, and let the software handle the rest. Our system optimizes the working surface of your fields by generating navigation maps aligned with your plot layout to cover all areas.
- **Mapping with seeder or planter:** *record points simultaneously using a GPS antenna mounted o on your equipment.*
- **In-field mapping:** survey rows using our remote antenna for ultra-precise guidance.

Tailor-made operations: *create specific maps, such as a vineyard nursery layout with multiple 12-row groups and separate inter-rows to alllow simultaneous operations.*



Polygonal maps *can be created to handle complex and irregular plots with ease, including U-turns, implement lift zones, and more.*

NAÏO COMPANION, THE APP THAT MANAGES YOUR ROBOT

Naïo Companion is an intuitive, feature-rich mobile interface designed to control and configure robots and their tools.
Key features include:

- **Real-time monitoring** of robots in the field, displaying key data such as speed, battery level, remaining work time, progress, and GPS signal.
- Adjustment of implement lifting height and robot speed.
- Remotely **pause or stop the work mission** if necessary.
- **Custom routine** creation for optimal efficiency and saving of implements so that you can store key specifications (width, length, etc.).
- **Centralized robot usage history**, to track the number of passes per plot and manage robot allocation based on upcoming tasks.

TOWARDS AUTONOMOUS AGRICULTURE

The Naïo software ecosystem is designed to free farmers from daily constraints with innovative, intuitive and high-performance management solutions. Naïo Companion and EasyMapping optimize operational efficiency while keeping the effort required from farmers to a minimum.

NAÏO COMPANION, THE SMART ASSISTANT

The Naïo Companion app is an integrated management tool for the entire Naïo robot range. It simplifies daily crop management while maximizing robot usage on farms based on reliable and accurate statistical data.

Naïo Companion incorporates plot mapping and takes on board the specific needs of each crop and implement so you can start planning your technical itineraries in the winter and organize the season ahead.

"In 2022, integrating Naïo Companion with the OZ robot made everything even easier to manage and further improved our work processes.
With this app, robot programming is more intuitive and organized centrally, helping us to manage field operations with greater efficiency."

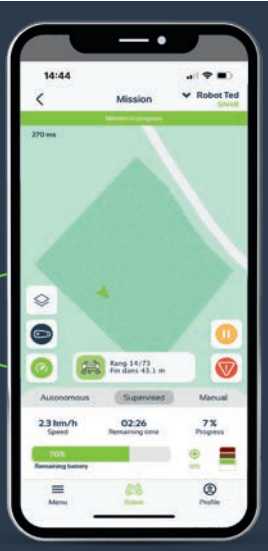
Maët LE LAN
Head of the experimental market gardening facility in Auray (56)

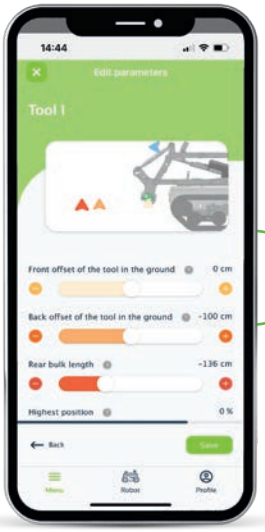
"When I'm planning my crops and plot layouts in winter, I create my maps and integrate them into Naïo Companion. I set up my tool and crop routines from the first pass. Then, during the season, all I need to do is select the right map and routine in the app – and of course, put the right seed in the seeder!"

Christine et Thierry FRANÇOIS
Medicinal plant producers – La Soléïade, Plan d'Orgon (13)

REAL-TIME MONITORING

While the robot is working, you can consult crucial information in real time from a distance, such as speed, estimated remaining working time, progress, energy gauge and GPS signal. The lift height and speed settings remain accessible, with a mission stop button if necessary.



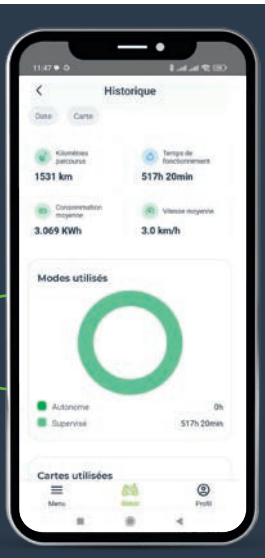


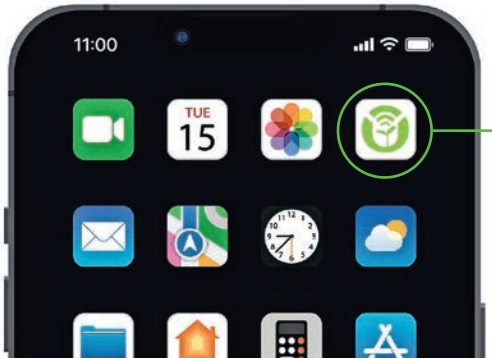
CREATE ROUTINES AND MANAGE IMPLEMENTS

For optimum efficiency, create your work routines and save your implements with their specific features. he dimensions and working depth are memorised, ensuring precise placement after each half-turn. Naïo Companion lets you save as many implements as you need for future use.mplements as you need for future use.

MANAGE ALL YOUR OPERATIONS

All your robot's usage history is centralized in the Naïo Companion app. You can track the number of passes on every plot and manage your robot's allocation to each operation.





DISPONIBLE SUR Google Play

Télécharger dans l'App Store

AUGMENTED AUTONOMY: WHEN ROBOTS WORK ALONE

Augmented Autonomy ensures that the robot fleet operates completely autonomously - without a field supervisor - while complying with all regulatory and safety requirements.

WHAT DOES AUGMENTED AUTONOMY CHANGE?

a. Valuable time saved:
more time available for high added-value tasks such as diversification, sales, maintenance, etc. By eliminating the need for an on-site supervisor, Augmented Autonomy also meets the challenge of labor shortages.

b. Greater precision and efficiency:
weeding tasks are carried out with precision by a robot that does not require on-site supervision. Regular, early passes – even blind passes – ensure optimal and effective weeding.

c. Soil protection and environmental efficiency:
reducing soil compaction requires lighter machinery. With Augmented Autonomy, you can work in difficult conditions and reduce fuel consumption per hectare.

THE 3 BENEFITS OF AUGMENTED AUTONOMY

1. CE-certified safety in autonomous mode :
Naïo Augmented Autonomy is the only CE-certified safety system, guaranteeing technology and operation that comply with European standards.

2. Manufacturer responsibility assumed:
Naïo is the only manufacturer to assume responsibility for unsupervised operation in the field. All you have to do is comply with the conditions of use. The machine's 5-year warranty also applies under these same conditions.

3. Integrated training and mapping :
Naïo undertakes to train users, carry out plot visits, draw up geofencing maps and provide technical support to users.

TROPHÉE D'OR VINITECH 2024

This technological breakthrough was awarded a gold medal by the jury of the **VINITECH – SIFEL 2024 Innovation Awards**

The geofencing prevents the robot from leaving the work area.

Do you have any questions about autonomous machines? Axema explains the legal framework in video. Scan this QR CODE and turn on automatic translation.

Naïo Technologies is the only manufacturer legally authorized to let its robots work autonomously and unsupervised.

THE REQUIREMENTS FOR REAL PEACE OF MIND

Plot optimisation: experts at your service
Augmented Autonomy requires specific expertise on your farm or vineyard. Naïo's experts or your approved distributor will carry out an in-**depth inspection of each plot** to identify the areas where your robot can operate alone and without constraints. If risks are identified, and only if they cannot be totally removed, the area concerned will be registered for operation with on-site robot supervision.

Geofencing for maximum safety
To accomplish its mission, a Naïo Technologies robot needs a self-guidance map. This consists of several lines that locate crops or rows of vines. When working **unsupervised in the field**, our specialists apply a virtual barrier (geofencing) after surveying the GPS points in situ. This boundary, shown in the map-editing software as a line around the plot, prevents the robot from straying from its authorised working area. his ensures safety by preventing any movement towards the public domain or dangerous areas. The slightest crossing of the line triggers a safety stop.

Practical training and personalised support
This training, available to all, details the steps to be followed to operate the robot in Augmented Autonomy. A dedicated hotline answers any questions or concerns.

OZ

"There's no soil compaction, no noise, it's really a traction robot. For hoeing, you get closer to the crop than a tractor. I'm never going back!"

Philippe SIRE

Market Gardener - GAEC de la Milliassière (France)

FOR DAILY WORK IN MARKET GARDENING AND SPECIALTY CROPS

In response to labor shortages and to reduce labor intensity, the OZ robot provides fast solutions for numerous tasks. The first electric field robot was launched over 10 years ago. It is used in market gardening, seed production and nurseries, as well as for medicinal plants and horticulture. OZ works tirelessly in the fields and greenhouses.

SAVE TIME AND IMPROVE PRECISION

OZ opens furrows, sows and weeds with sub-inch accuracy thanks to its RTK GPS auto-guidance system. The robot places the tool where it needs to be and goes back and forth between the rows of crops. This avoids the need to use weedkillers, while saving users time. You can dedicate several hours a day to higher value-added tasks to manage the other key activities on your farm.

A WIDE RANGE OF TOOLS

Start with a vegetable seeder, then depending on the stage of the crop, several tools will make the difference. Work on the row with the currycomb harrow and spring hoes. Shape the row with Lelièvre brushes, ridging discs, discs and blades.
Fight weeds between the rows with parallelograms fitted with an integrated control wheel, coulters and vibrotiller... OZ can also help you transport your harvest.

"OZ has made our work more stress-free. It opens furrows, sows and weeds, even when the tractor can't get onto the plots. It greatly reduces physical strain, which is good news for our employees. No more back pain – now that's invaluable."

Hervé POUTEAU
Market Gardener – GAEC Le Potager Fleuri (France)

RTK GPS ensures sub-inch accuracy. The work maps produced during sowing or furrow tracing are used for the entire technical itinerary.

The OZ robot weeds relentlessly to give you more time for tasks that are difficult to mechanize.

Several weed control tools are available to remove weeds at all stages of the crop.

OZ IN ACTION

COMBINING CARROT AND RADISH SOWING

With the same working map and a change of seed drill, OZ sows two different crops. First carrots, then radishes. They emerged quickly and competed with the weeds. Three weeks later, the radishes were harvested and OZ maintained the carrot row by straddling it and weeding between the rows.

REDUCING MANUAL LABOUR IN PERFUME PLANTS

OZ works on perennial crops (roses) or annuals (tuberose). It starts by marking out the plots and opening the planting furrows. Equipped with a vibrotiller, the robot eliminates weeds from tuberous plants in the inter-row. It uses harrows to weed the rows. Brushes are used to resurface the ridge. For roses, the robot loosens the soil when fitted with tines and fights weeds when fitted with hoeing shares.

ALL-SEASON USE IN SEED PRODUCTION

Seed companies use OZ to reduce the labor intensity of tasks carried out by employees, particularly for mechanical weeding between rows. The robot saves time in weed control. During the winter, OZ is used to transport loads and assist with greenhouse work, as well as preparing for the following season.

USER ADVANTAGES

PROFITABLE
- *Spend less time weeding and working the soil*
- *Improve your technical and economic results*
- *Reduce your energy costs ($0.8/ac)*

LIGHT
- *Avoid soil compaction*
- *Reduce ruts in your plots*
- *Maintain the fertility and life in your soil*

SUSTAINABLE
- *The first 100% electric farm robot*
- *Reduce your greenhouse gas emissions*
- *Reduce your chemical inputs*

VERSATILE
- *Sow your rows of crops*
- *Prepare your furrows for your plants*
- *Over 20 implements available*

ACCURATE
- *Sub-inch RTK GPS guidance*
- *Control weeds in the row*
- *Weed at the seedling stage*

COMFORT
- *Reduce arduousness and manual catch-up*
- *Works by your side without noise or fumes*
- *Optimise logistics with its adapted size*

TECHNICAL SPECIFICATIONS

MOTORS & BATTERIES

Drive wheels	4
Battery capacity	2.6 kWh
Range on a single charge	up to 8 hours
Charging time	8 hours

DIMENSIONS & WEIGHT

Standard width / with duals	1’ 1” / 1’ 8”
Length	4’ 3”
Height (without lighting column)	2’ 9”
Weight without tools (including battery)	353 lbs

PERFORMANCE & SAFETY

Working speed	0.1 - 1.1 mph
Lift capacity	130 lbs
Augmented Autonomy (no supervision)	yes

OZ-COMPATIBLE IMPLEMENTS









PREPARE SOIL'S UPPER LAYER

- Vibrotiller

PLANT YOUR CROPS

- Furrower share
- EBRA seeder
- JPH TERRADONIS seeder

WEED BETWEEN CROP ROWS

- Hoeing elements: 3 parallelograms and 3 × 9 in shares
- Vibrotiller

WEED ON CROP ROWS

- Two-wheel hoe shares (discs and LELIÈVRE blades)
- Pair of tine harrows on the row
- Pair of ridgers on shares
- Pair of torsion springs on shares

ADAPT YOUR TOOLS

- Attach your equipment to the tool-carrier as required and according to lift capacity (130 lbs).

MAP YOUR CROPS WITH OZ

An ACCURATE map means ACCURATE guidance! That's the essence of the services offered by Naïo Technologies.

With OZ, there are several solutions available to you:

1. MAP YOUR PLOT FOR SEVERAL YEARS

Before planting your crops, you can prepare a virtual map of your rows. Survey the outer edges of the plot and choose the inter-row distance. Our EasyMapping software will generate an optimized working map according to the boundaries of your plot. This is the ideal option for sowing and planting with the robot, then weeding according to this predefined map.

2. MAP WHEN PLANTING OR SEEDING

If you already have a seeder or planter, you can record your planting work using the antenna on your OZ. Attach the antenna to your equipment and record the GPS lines for each pass. This map will then be checked by our teams or your dealer to ensure optimal robot guidance.

3. EASY MAPPING

If you already have a seed drill or planter, you can simply record your planting work using the antenna on your OZ. All you have to do is attach the antenna to your planter and record your planting session. This map will then be checked by our teams to ensure that the robot's guidance is optimized.

5
WARRANTY

For our customers' peace of mind, all new robots come with a warranty covering a period of 5 years or up to 2,000 working hours. This includes the mechatronic platform and the tool-carrier. In addition, you have access to annual maintenance at your authorized dealer.

SERVICES & TRAINING TO OPTIMIZE YOUR OPERATIONS

- **Naïo Companion mobile connectivity** for real-time monitoring of your robot
- **Annual update** for optimum performance at all times
- **Technical support** from our approved dealers. Several days of training on the robot.

ORIO

THE MOST VERSATILE TOOL-CARRIER

Available in two versions (Narrow & Large), this robot helps growers while reducing soil compaction. ORIO takes care of your crops from sowing to harvesting. Designed for large-scale vegetable and crop growers, it has already demonstrated its versatility to some ingenious and daring customers.

PERFECT SOWING AND WEEDING

Naïo Technologies has certified a range of premium tools to guarantee its customers high performance throughout the technical itinerary and yield improvements coupled with significant time savings. You can sow a wide variety of seeds with the Stanhay precision pneumatic seed drill. The Argus precision hoe from K.U.L.T. and the Treffler TS precision tine weeder give you great versatility in weed control, including false seed.

"We saw the ORIO robot as a way of reducing the painful work for our teams. It exceeded our expectations on the majority of the steps in the technical itinerary for sowing and weeding the country's future trees."

NADLEŚNICTWA PODANIN
Ministry Of Forestry (Poland)

"Orio has proven to be very effective when it comes to the technical itinerary for carrots, a demanding but highly profitable crop. The robot is capable of sowing and weeding, and handles all key stages, from planting to crop care."

Didier TISON
CEO, Axioteq (South Africa)

ACCURATE GUIDANCE

ORIO can be positioned with sub-inch accuracy thanks to its RTK autoguidance system. The robot can be fitted with a camera-guided sideshift to compensate for line errors in plots sown by another machine. This means that mechanical weeding can be carried out as close as possible to your crops, even at very low speeds if conditions require.

In case of non-straight sowing or planting, the camera-guided sideshift replaces the implement for ultra-efficient weed control as close to the row as possible.

Stanhay's pneumatic seed drill can be configured to suit your needs, giving you greater precision right from the start.

ORIO IN ACTION

MECHANICAL SOWING AND WEEDING OF FRESH HERBS

Basil, parsley, and other herbs can be sown by ORIO – using either your traditional mechanical seeders or electrified pneumatic seeder, such as those from the Stanhay range.
With the mapping created during seeding, the weeding process is carried out with extreme precision. ORIO saves time and makes significant savings, since there is no need for manual weeding or for the use of chemicals.

IN-ROW WEEDING IN LETTUCE

The design of the Orio tool-carrier lets you mount active implements such as the iSelect developed by K.U.LT. This electric active implement is a real asset – when it comes to weeding between lettuce plants, for example. The iSelect elements are controlled by a camera that automatically triggers the opening and closing of the weeding blades.

SOWING AND WEEDING YOUNG TREES

From the soil working stage, ORIO loosens and packs the soil to facilitate the creation of a good seedbed. The working lines are recorded with RTK GPS for mapping in future stages. Once sowing is done by the robot or after manual transplanting, nursery workers continue with weed control methods using ORIO. Sub-inch accuracy ensures quality work and avoids many hours of manual catch-up.

USER ADVANTAGES

PROFITABLE
- *Reduce your weeding times with Augmented Autonomy*
- *Kill the weeds and increase yields*
- *Reduce your energy costs ($0.65/ac)*

LIGHT
- *Avoid soil compaction with less than 1.7 tons battery included*
- *Widen operating windows*
- *Maintain the fertility and life in your soil*

SUSTAINABLE
- *A 100% electric tool-carrier*
- *Reduce your greenhouse gas emissions*
- *Reduce your chemical inputs*

VERSATILE
- *Have time to do false-seeds*
- *Seed your specialty crops with accuracy*
- *Attach implements on the 3 point linkage*

ACCURATE
- *Sub-inch RTK GPS guidance*
- *Camera-guided implement positioning to stay close to the row*
- *Operate on-row weeding with K.UL.T. iSelect hoe*

COMFORT
- *Reduce labor intensity and manual catch-up*
- *Watch the work mission with your app*
- *Save time for other tasks*

TECHNICAL SPECIFICATIONS

	NARROW	LARGE
MOTORS & BATTERIES		
Rated/maximum power	12 kW / 20 kW	
Battery capacity (standard / HD)	21 kWh / 32 kWh	
Maximum area worked per day	up to 9 ha	
DIMENSIONS & WEIGHT		
Adjustable track width	60” <-> 68”	71” <-> 84”
Minimum / maximum width	5’ 8” / 6’ 6”	6’ 8” / 7’ 10”
Length	14’ 1”	
Height	6’ 11”	
Unladen weight (including batteries - standard / HD)	3200 lbs / 3420 lbs	3530 lbs / 3750 lbs
PERFORMANCE & SAFETY		
Working speed	0.3 <-> 3.4 mph	
Lift capacity	1540 lbs	
Augmented Autonomy (no supervision)	yes	

ORIO-COMPATIBLE IMPLEMENTS

PLANT YOUR CROPS

- STANHAY electrified air seeder for vegetables
- Adapt your mechanical seeders to the tool-carrier

WEED BETWEEN CROPS

- TREFFLER tine harrows
- Compatible with the ARGUS hoe according to your crops
- Compatible with the HAK hoe according to your crops

WEED ON LETTUCE ROWS

- Compatible with the K.U.L.T. iSelect hoe

ADAPT YOUR IMPLEMENTS

- Attach your equipment to the 3-point lift (Cat-2) as required and according to lift capacity (1540 lbs).

MAP YOUR CROPS WITH ORIO

An ACCURATE map means ACCURATE guidance! That's the essence of the services offered by Naïo Technologies.

With ORIO, there are several solutions available to you:

1. USE ORIO TO PLANT YOUR CROPS

You can prepare a virtual map of your rows before planting crops using the robot. Survey the outer edges of the plot and choose the inter-row distance. Our EasyMapping software will generate an optimized working map. You can sow or plant using ORIO and then weed according to this predefined map.

2. USE ORIO FOR CROPS ALREADY PLANTED

- Using the tractor recording: if your tractor is equipped with RTK GPS that is compatible with our mapping system, you can retrieve maps generated during sowing or planting. Our team will adapt them for the robot after confirming its compatibility with our system.

- Mapping the plot: survey your plot using our remote antenna to record the start and end points of your beds. These points are processed by our EasyMapping software to generate an ultra-precise guidance map.

5

WARRANTY

For our customers' peace of mind, all new robots come with a warranty covering a period of 5 years or up to 2,000 working hours. This includes the mechatronic platform and the tool-carrier. In addition, you have access to annual maintenance at your authorized dealer.

SERVICES & TRAINING TO OPTIMIZE YOUR OPERATIONS

- **Naïo Companion mobile connectivity** for real-time monitoring of your robot
- **Annual update** for optimum performance at all times
- **Technical support** from our approved dealers. Several days of training on the robot

TED

"At first, I was impressed by the quality of the autoguidance. Now, with Augmented Autonomy, there is no need to have someone behind to monitor a repetitive task and a validated route."

Renaud FRIEDERICH
Manager, Domaine du Gibeau (Cognac area)

THE GAME CHANGER FOR VINEYARDS & TREE NURSERIES

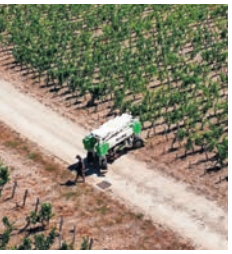
Designed in collaboration with the IFV (French Wine Institute), TED expands the work windows for a wide variety of tasks in the vineyard. This robot has been designed to operate throughout a working day. It is lightweight - 2 tons including batteries - to avoid soil compaction. TED is available in two versions to fit your vineyard up to 7' 9" high. Equipped with Boisselet standard bars, it is compatible with a wide range of mechanical implements you already use. Combine implements according to your needs. TED powers the most versatile electric inter-vine cultivators on the market, developed with Boisselet. The EVOLT® works for row ploughing, inter-vine weeding with blades, ridging / opening with discs, and soil loosening (with ploughshares or serrated discs).

LEAVE THE VINEYARD WITH PEACE OF MIND

Autonomous, agile, and accurate in its maneuvers, it does not require supervision in the parcel.
You can monitor the progress of the operation via the Naïo Companion app and the sequence of parcels. Several months of development and testing were required to develop Augmented Autonomy: a patented safety system compliant with CE standards. Naïo Technologies assumes its responsibility to ensure the safe operation in case of intrusion into the vineyards.
TED is the only vineyard robot on the market that can operate within a clear and protective legal framework for the user.

TED adapts to vineyards thanks to two arch heights (6' 7" or 7' 9"). It features the widest arch on the market (3' 5").

The EVOLT® electric inter-vine developed with Boisselet offers even more accurate adjustment possibilities than your traditional hydraulic inter-vine cultivators.



"We wanted to limit certain herbicides in a proven context of labor shortage. This electric robot seemed ideal to address economic, ecological, and social challenges."

Fabien RAYMOND
Technical Director, Château Labégorce (Bordeaux area)

TED IN ACTION

HERBICIDE-FREE WEED CONTROL IN ROWS

Answering regulatory constraints and consumer demands, TED offers virtuous solutions. Numerous implements for working in rows can be attached to standard Boisselet poles. Ploughshares, mechanical or electric inter-vine, lumpbreaker or serrated discs, hoeing fingers: the choice is wide for winegrowers who can combine passes and implements, depending on the conditions.

WEEDING YOUNG VINES WHILE RESPECTING THEM

Maintaining the rows of young vines requires low-speed work to eliminate weeds in the rows. Driving the tractor for this task is hard and tiring. TED keeps the hours ticking by, even at low speed, and respects the young vines. It allows the soil to be worked according to conditions, thanks to a multitude of implements. As an added bonus, Boisselet's EVOLT® electric intercep increases precision and respect for young vines.

ANTICIPATE TO BETTER RESPECT THE LIFE OF THE SOIL

Being very lightweight, TED allows users to launch work missions at the early stages of grass development on the row. This is a major advantage at the end of winter. The first passes, made well before the tractors are able to come back, avoid future passes with a surge of power, costly in fuel and mechanization costs, and with a high risk of compaction.

USER ADVANTAGES

PROFITABLE
- *Reduce your weeding times with Augmented Autonomy*
- *Improve your yields by controlling weed growth under the row*
- *Reduce your energy costs ($0.62/ac)*

SUSTAINABLE
- *The first 100% electric straddle robot*
- *Reduce your greenhouse gas emissions*
- *Reduce your chemical inputs*

ACCURATE
- *Sub-inch RTK GPS guidance*
- *Control weeds in the row*
- *Manage complex U-turn zones*

LIGHT
- *Avoid soil compaction*
- *Widen your windows of intervention*
- *Maintain the fertility and life in your soil*

VERSATILE
- *Adapt the mechanical implements on the market*
- *An EVOLT® electric inter-vine from Boisselet*
- *Electric sockets for animated implements*

COMFORT
- *No more hand catch-up in the vines*
- *Monitor the site from your application*
- *Make time for other tasks*

TECHNICAL SPECIFICATIONS

	L	XL
MOTORS & BATTERIES		
Rated/maximum power	10 kW / 18 kW	
Battery capacity (standard / HD)	26 kWh / 39 kWh	
Maximum area worked per day	up to 6.5 ha	
Fast charge 20 to 80% (standard / HD)	2 h 40 / 5 h	
DIMENSIONS & WEIGHT		
Track Width	5’ 3”	
Width	6’ 3”	
Length	13’ 1”	
Height (under arch / overall)	6’ 7” / 7’ 10”	7’ 9” / 9’
Unladen weight without implements (including battery and standard bars)	4630 lbs / 4850 lbs	4696 lbs / 4916 lbs
PERFORMANCE & SAFETY		
Working speed	0.1 <-> 2.8 mph	
Lift capacity	1320 lbs	
Augmented Autonomy (no supervision)	yes (up to 1.3 mph)	

TED IN ACTION

INTER-ROW WORK

- Pair of BOISSELET rippers/vibrotillers
- Inter-row mower (under development)

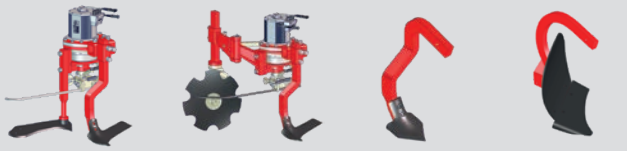
WEED UNDER YOUR VINE ROWS

- BOISSELET gauge wheels
- PERREIN mechanical intervine with parallelograms and probes
- Pair of CLEMENS lump breaker discs
- Pair of finger hoes – CLEMENS 21.3 in or K.U.L.T. 27.5 in
- SOUSLIKOFF Décalex undervine ploughshare
- Extension bar with 3 SOUSLIKOFF tools

WEED WITH THE EVOLT® ELECTRIC INTERVINE FROM BOISSELET

Several components available: blades, discs, shares...

CUTMATIC **VALMATIC** **JURAMATIC** **DECAVATIC**

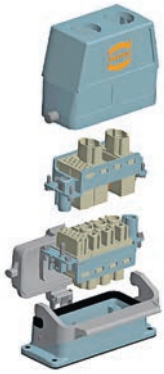


MANAGE CANOPY

- Pair of NAOTEC vine shoot removers
- NAOTEC trimmer (under development)

ADAPT YOUR TOOLS

Attach your equipment to the standard BOISSELET bar



NEW FOR 2025: SMART PLUG

Adapt your active tools to the robot using this connector, which supplies power to the tool, communicates with the robot, and ensures safe operation.

MAP YOUR VINES WITH TED

An ACCURATE map means ACCURATE guidance! That's the essence of the services offered by Naïo Technologies.

With TED, there are several solutions available to you:

1. WHEN PLANTING

If your planting contractor is equipped with RTK GPS, you can either retrieve its mapping or, for even greater accuracy, use the GPS antenna delivered with your TED to record the planting site. You'll have peace of mind for years to come!

2. MANUAL MAPPING ON VINES IN PRODUCTION

Take your robot's antenna and use a surveyor's pole. You can then map your vines manually. To optimize this map, we advise you to take points at the foot of your vines, in winter conditions, to limit the impact of vegetation on the accuracy of the recording. You can take as many points as you like per row of vines.
On older vines, we recommend that you increase the number of points per row. On recently planted vines with GPS systems, one point A and one point B at the beginning and end of the row may be enough.

3. DRONE MAPPING

Some service providers are now able to carry out accurate drone mapping of your vines. To ensure compatibility with the TED robot and good accuracy, send this map to our teams.

5
WARRANTY

For our customers' peace of mind, all new robots come with a warranty covering a period of 5 years or up to 2,000 working hours. This includes the mechatronic platform and the tool-carrier. In addition, you have access to annual maintenance at your authorized dealer.

SERVICES & TRAINING TO OPTIMIZE YOUR OPERATIONS

- **Naïo Companion mobile connectivity** for real-time monitoring of your robot
- **Annual update** for optimum performance at all times
- **Technical support** from our approved dealers. Several days of training on the robot

JO

"It's fairly easy to get accustomed to and the robot performs with precision. We've observed 10-15% vine breakage with a tractor operator, compared to just 2% with the JO."

Nicolas FRATANTUONO
Le chant d'Éole (Belgium)

THE AUTONOMOUS CRAWLER FOR NARROW VINES, NURSERIES & BERRIES

JO is the ideal companion for effective mechanical weeding of vines. The robot is extremely versatile, thanks to features designed to give it agility, grip and easy implement changes. This autonomous crawler is the result of work on specifications carried out with the Comité interprofessionnel du vin de Champagne. Discussions between this recognized institution and Naïo Technologies Research & Development resulted in a powerful crawler capable of working simultaneously on the row and in the inter-vine. Precise guidance and sub-inch accuracy positioning ensure highly efficient work. Combined with EVOLT® electric inter-vine cultivators and many other wine-growing implements, JO provides essential versatility for soil-working tasks. Its features make it ideal for narrow vineyards, but also for nurseries and berry production.

Transport in a van is faster and less expensive than using a specialized tractor.

AN ULTRA-COMPACT DESIGN FOR PARCELLED VINEYARDS

Designed to work easily in 1 meter planted vines, the autonomous crawler JO is 30" wide. The autoguidance system developed by Naïo Technologies runs U-turns in narrow areas : perfect for highly constrained headlands! Its size and folding antennal make it easy to transport in a van. Getting to a remote plot is quick and easy. Able to work under tunnel greenhouses, the JO autonomous robot is also a powerful ally for all types of nursery. It can help teams as soon as the furrow is opened.

The Boisselet saddle can hold a standard pole or a 3-point lift.

"When we have a lot of work to do to protect the vines from diseases, JO takes care of the mechanical weeding and relieves us. It also reduces the risks for tractor operators in steep plots."

CUMA DE LA FAYE
(France)

JO IN ACTION

PLANT THE VINE AND THEN WEED IT

On a plot of land defined by the user, the Naïo Technologies mapping service draws the positioning lines of the planter according to the chosen orientation. The row spacing and headlands are positioned with sub-inch accuracy.
The day before planting, a furrowing ploughshare and a vine wire unwinder are attached to JO. The robot follows the map back and forth, making the work less tiring. The map lines are used as a reference to carry out the weeding over the years.

HELPING NURSERIES MAKE THE ECOLOGICAL TRANSITION

Restrictions on the use of chemicals to control weeds are increasing. In this new context, outdoor production is very labour-intensive. But the tasks of hoeing and digging do not attract farm workers. So the best alternative is robotisation. The JO crawler, equipped with EVOLT® electric intervine or mechanical intervine, ensures high-quality soil cultivation while preserving the shrubs and young trees.

MAINTAINING SCATTERED VINEYARDS

When vines are far apart and tractor travel times are lengthy, JO is the best solution for weed control. Transport by van saves time, and users get back to the winery more quickly. It also saves fuel and tractor tyres.
The winegrower can work in pairs on his plot and carry out manual tasks while JO does the soil maintenance.

USER ADVANTAGES

PROFITABLE
- *Reduce your weeding times with Augmented Autonomy*
- *Kill the weeds and increase yields*
- *Cut down your input expenses*

SUSTAINABLE
- *The first 100% electric crawler robot*
- *Reduce your greenhouse gas emissions*
- *Reduce your chemical inputs*

ACCURATE
- *Sub-inch RTK GPS guidance*
- *Control weeds in the row*
- *Manage complex parcels*

LIGHT
- *Avoid soil compaction with less than 1 ton*
- *Widen operating windows*
- *Maintain the fertility and life in your soil*

VERSATILE
- *Draw your planting lines for the following years*
- *An EVOLT® electric intervine from Boisselet*
- *Attach implements on a bar or 3-point hitch*

COMFORT
- *No more hand catch-up in the vines*
- *Work in robot mode*
- *Optimize logistics thanks to its compact design*

TECHNICAL SPECIFICATIONS

MOTORS & BATTERIES

Rated/maximum power	6 kW / 10 kW
Battery capacity (standard / HD)	16 kWh / 21 kWh
Autonomy on a charge (standard / HD)	up to 8 h / up to 10 h

DIMENSIONS & WEIGHT

Width	30”
Standard track width	7”
Length (excluding tow bar)	6’ 11”
Height (work/transport)	6’ 9” / 5’ 3”
Unladen weight including batteries (standard / HD)	1874 lbs / 1984 lbs

PERFORMANCE & SAFETY

Working speed	0.3 <-> 1.3 mph
Lift capacity	550 lbs
Augmented Autonomy (no supervision)	yes

JO-COMPATIBLE IMPLEMENTS

INTER-ROW WORK

- BOISSELET rippers/vibrotillers
- Inter-row mower (under development)

WEED UNDER YOUR VINE ROWS

- BOISSELET gauge wheels
- PERREIN mechanical intervine wit parallelograms and probes
- Mechanical intervine with BOISSELET blades, without probes

WEED WITH THE EVOLT® ELECTRIC INTERVINE FROM BOISSELET

- CUTMATIC electric intervine with blades

CUTMATIC

MANAGE CANOPY

- Pair of NAOTEC vine shoot removers

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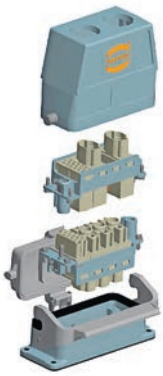

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With JO, there are several solutions available to you:

1. MAPPING YOUNG VINES WITH JO

You can use JO to draw your furrows before planting. This way you'll have an accurate map of your vine rows that JO can use for annual tasks.

2. MANUAL MAPPING ON VINES IN PRODUCTION

Take your robot's antenna and use a surveyor's pole. You can then map your vines manually.
To optimize this map, we advise you to take points at the foot of your vines, in winter conditions, to limit the impact of vegetation on the accuracy of the recording. You can take as many points as you like per row of vines.
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