

Autonomous and smart tomato plant deleafing robot

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"Plants are not like factory-made products. They are different from one row to the next, and from one grower to the next. Plants change throughout the season. The great diversity and special cases we deal with are what make our work so complex. We need to know how to learn from the experience of interacting with the living world, which is why AI is used for robotics.

Our robot was designed to operate in a plantbased and living environment. It can analyze this environment, understand it and act upon it accordingly. It currently handles a pivotal task in the tomato greenhouse, namely deleafing.

Aisprid provides a sustainable answer to labor shortages while improving the working conditions of those who handle the plants.

The aim of robotics coupled with AI is not to replace people, but to help them."

The deleafing robot for tomato plants the world's leading edge is already a reality



The AISPRID robot is the world's leading edge autonomous, smart and accurate greenhouse-grown tomato plant deleafing robot.

The high-precision robotic solution combined with AI is already in operation in tomato greenhouses, and the growers are true development partners for the AISPRID robot solution: a 3-year long R&D and fieldtesting program can vouch for the robot's operational condition.



Aisprid, a trustworthy partner Design, manufacturing and monitoring control.

"Deleafing takes up 40% of the harvesting and deleafing teams' working time. If Aisprid's robots meet our requirements and standards, we'll definitely be buying them. They increase growers' peace of mind as they can bank on the work getting done on time."

Pierre Guyomar

Challenges for the Fruit & Vegetable value chain

« The major issue is the labor shortage »

The fruit and vegetable value chain is a linchpin of food sovereignty, yet currently half the fruit and vegetables eaten in France are imported. More specifically, 40% of the fresh tomatoes eaten in France are imported.

One of the main causes of our reliance on imports lies with recruitment issues and workforce management. This is a major global issue which directly affects daily operations in the greenhouse, such as tomato plant deleafing.

The pressure on growers increases every year, and so does food demand. The use of autonomous farming robots and drones are some of the innovations that could be the key to future food supplies.

Aisprid's deleafing robot provides a sustainable answer to labor shortages and relieves workers of physically demanding deleafing and crop protection operations.

Benefits for **growers**

PEACE OF MIND

- The robot is guaranteed to be there when deleafing is required.
- Reduced recurrent recruitment and training costs.
- Round the clock deleafing.

- Improved crop protection and health standard compliance.
- Reduced contamination risk with less seasonal worker movement.
- O Clean cut reducing the risk of diseases.
- Integration of a UV-C sanitizing module for the cutting system, the part in contact with the plant and leaves.

JOB ATTRACTIVENESS

- Less physically demanding and improved work conditions.
- Heightened job appreciation with more time spent on value-added tasks.
- Team management visibility and less labor churn.

Operational sustainability leading to increased business viability.

Future development project opportunities.

"Robotizing greenhouse tasks is the future of our value chain. The more experience the robot gets, the better it performs: cutting is neater and the Aisprid robot is making good progress. It will continue to improve in terms of cutting precision and numbers of leaves cut."

Marine Lec'hvien Grower and equipment user

What's new at Aisprid





Market release in France in January 2024

Designed and manufactured in Saint-Malo, France, the AISPRID robot will be officially launched on the French market at the SIVAL 2024 trade show.

Aisprid's website has been **overhauled** to support its development on the French and international markets, and improve its visibility to attract future applicants.



www.aisprid.com

New video

Discover the Aisprid robot in pictures and in action



https://aisprid.com/robot-leafy/

Upcoming events in 2024

- World FIRA Startup Pitch Session 2024, February 2024
- OGreentech 2024 in Amsterdam, June 2024

About **Aisprid**

"Helping growers to feed everyone now and in the future"



That is Aisprid's core purpose, which stems from a realization of its founders:

With a soaring global population putting increasing pressure on agricultural production, Aisprid aims to support growers to help feed people now and in the future by using high-precision robotics combined with Al.

In response to the labor shortages severely affecting the farming industry, Aisprid designs, manufactures and markets autonomous robots designed for the plant sector, capable of analyzing the data to provide bespoke solutions. Aisprid's easy-to-use and time-efficient high-precision agro-equipment can handle the most delicate tasks, and minimizes operational and health-related risks while improving work conditions for those working with plants and fruit alike.

In 2023, after a 3-year long R&D process in partnership with growers, Aisprid deployed its first fleet of high-precision and scalable robots dedicated to tomato plant deleafing operations. This is a cruciallyimportant operation that favors light penetration and optimizes fruit quality. This is a first step towards future farming solutions where robotics and AI support plant growth and help people.

Aisprid is the **trusted partner** of fruit and vegetable growers!

innovation awards and prizes



employees, extensive expertise in robotics and Al



4.6 M€ first fund-raising campaign



in 2021

autonomous robots in operation on farms in 2023



Aisprid's genesis in the **foundeurs** own words



Pierre-Edouard HANNOUSH, Head of Mechanical Engineering & Co-founder, Nicolas SALMON, CEO & Co-founder, Morgan KERVOERN, Head of Software Engineering & Co-founder

Interview with... Nicolas, Pierre-Edouard and Morgan, **Aisprid co-founders**

It's there for all to see. The world faces an emergency. With the soaring global population putting increasing pressure on agricultural production. With the fast-changing farming industry, where increasingly stressful and tough working conditions tend to make us forget its primary purpose. How to address the food supply challenge? How to sustainably feed the global population? Those are the main concerns of AISPRID's 3 co-founders: Nicolas, Pierre-Edouard and Morgan.



Nicolas, once the premise of the emergency situation was set, what was the triggering event for **AISPRID?**

This venture is actually the result of a sequence of events, but meeting the right people was key. In 2020, we decided to meet local growers to get an overview of their challenges. It was obvious that we could not develop our project without them. Bringing our 2 worlds together (i.e. plants and high tech) was in fact much easier and natural than we had anticipated, and our complementarity soon became obvious.

Where does the name **AISPRID** come from? «Isprid» means «spirit» in Breton, and the "A" was added to form the acronym "AI" for "Artificial Intelligence".



Pierre-Edouard, I assume your robot as it stands before us today is the end result of a long-winded process?

In the early days of our venture, we initially designed a first strawberry picking robot. In late 2020, when the company had only just been founded, we worked on another tomato picking prototype, relying on our expertise in robotics and Al. We then took part in a number of competitions and the ensuing support we got was incredible. AISPRID was then integrated to the Emergys incubator and was based in the Odyssée business incubator in Saint-Malo. In 2021, the first fund-raising campaign was organized, raising 4.6 million euros to boost the development of our smart farming robots. This acted as a springboard that took the company to new heights!



Morgan, the partnership with the Fruit & Vegetable value chain was key to your **development.** Could you tell us more about that?

It is truly a collective venture. In 2022 and 2023, we significantly stepped up our R&D program, in close cooperation with many growers open to our solutions and who became our partners. In 2023, our first industrial pre-production runs of autonomous, accurate and smart robots operating with plants and a living environment, primarily used for tomato plant deleafing, were deployed in greenhouses. This was a first step towards future farming solutions where robotics and AI support plant growth and help growers.

Our awards













Our partners -















Our investors

DEMETER GO CAPITAL

BreizhUp







A readily accessible team at your service, made up of talented, inquisitive, dedicated and enterprising engineers and technicians.





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