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AN INTELLIGENT MACHINE THAT IS EASY TO PROGRAM AND EASY TO CONTROL

The company Carré HKTC has always stood out by betting on innovation. By developing the Anatis agricultural robot project with Capacités, it wanted to open up to the fruit and vegetable crops market by offering an autonomous soil preparation machine.

The experts from Capacités relied on their industrial culture and expertise in advanced robotics to translate the manufacturer's intentions into adapted technical specifications. The constraints connected with complex exterior environments and conditions for use and safety were examined in detail, guiding certain choices of actuators and electrical components.

Expertises:

- Robotic and automation
- Data Science and Artificial Intelligence

The control algorithm is combined with a built-in camera and a GPS tracking system to guide the robot autonomously. It can pass from one row of crops to the next without human intervention.

The human-machine interface is designed in the form of a visual application, making it easier for the farmer to control and program the robot. The data collected while the robot is working allows the farmer to measure and optimize the machine's actions.

To successfully complete this project, the Capacités' experts benefited from support and technical equipment from the LS2N laboratory, joint research unit of the University of Nantes, IMT Atlantique, INRIA and CNRS (The French National Centre for Scientific Research). ■ □

CAPACITÉS

Created in 2005, Capacités is the private engineering and research valorisation subsidiary of the University of Nantes. It employs 90 employees, mainly engineers and PhDs, who work directly with scientists in the research laboratories.



UNIVERSITÉ DE NANTES



 **Commercial contact**
deveco@capacites.fr
(+33)2.72.64.88.94

 **Communication contact**
communication@capacites.fr
(+33)6.36.13.36.56