Robotic harvester | Photo source Pixabay

EU PROJECT DEVELOPS ROBOTIC CUCUMBER HARVESTER

TELECOMMUNICATIONS

The robot cucumber-picker is able to harvest ripe cucumbers without damaging them.

With the ever-increasing need for food in the world, it is unsurprising that new and innovative ways to make farming practice more efficient are numerous. We have already seen farming innovations such as these remote control vehicles that are used to sew and harvest a field of barley. Another example which shows that robots are entering the industry too, is this gardening assistant capable of watering plants and scaring away pests. Now, The Cucumber Gathering, a Green Field Experiments (CATCH) project also seeks to use robots, designing a robot for harvesting.

The EU funded project is formed by various partners including the Leibniz Institute for Agricultural Engineering and Bioeconomy, and the Spanish Centre for Automation and Robotics. Combining the expertise of these researchers, the project seeks to create a robotic alternative to human cucumber harvesters. In their own words; “the CATCH experiment aims at developing a flexible, cost-efficient and reconfigurable/scalable hortibotic outdoor solution for automated harvesting in challenging natural conditions.”

The Germany-based project aims to develop a robot system consisting of dual-arms with lightweight modules. Using their gripper arms, the robots will be capable of picking cucumbers. Human workers can pick an average of 800 cucumbers an hour. To be financially viable, the project must achieve a result which is at least as efficient as human workers. One existing boundary to overcome, is how to create a robot able to identify ripe cucumbers hidden among foliage. Another boundary is how to ensure that the robot arms do not damage the cucumbers as they pick them.

Following initial field testing in July 2017, the technology proved to function well. The robot was able to detect ripe cucumbers with 95 percent accuracy. However, the researchers are continuing their work in an attempt to reach an accuracy of 100 percent. How else could robots help us to increase farming efficiency?

15th February 2018
Website: www.echord.eu/catch
Contact: www.echord.eu/contact