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Japanese innovator develops a farm robot algorithm for autonomous harvestingÂ of strawberryÂ

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Japan's Osaka Metropolitan University Assistant Professor Takuya Fujinaga has developed an algorithm for robots to autonomously drive in two modes: **moving to a pre-designated destination** and **moving alongside raised cultivation beds**. The Graduate School of Engineering researcher experimented with an agricultural robot that utilizes lidar point cloud data to map the environment.

Strawberry fields forever will exist for the in-demand fruit, but the laborers who do the backbreaking work of harvesting them might continue to dwindle. While raised, high-bed cultivation somewhat eases the manual labor, the need for robots to help harvest strawberries, tomatoes, and other such produce is apparent. A farm robot using lidar shows it can harvest strawberries from a high-bed cultivation field.

Lidar uses light in laser pulses as a remote sensing method. The farming robot can thus move accurately while maintaining a constant distance from the cultivation bed, with its effectiveness verified in virtual and actual environments.

â??If robots can move around the farm more precisely, the range of tasks that they can perform automatically will expand, not only for harvesting, but also for monitoring for disease and pruning,â?• Professor Fujinaga explained. â??My research shows a possibility, and once this type of agricultural robot becomes more practical to use, it will make a significant contribution to

improving work efficiency and reducing labor, especially for high-bed cultivation.â↷

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