

PROTOTYPE DESIGN OF AUTOMATION AND MONITORING TOOLS FOR SEEDING CELERY SEEDS BASED ON THE INTERNET OF THINGS

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ABSTRACT

*Indonesia is known as an agricultural country with the majority of its population working in agriculture. One of the plants that is widely cultivated in Indonesia is celery (*Apium graveolens*), a plant that is a complement to various foods that can grow abundantly in Indonesia. One of the important things in planting celery is when it is sown, this is because seeding is the initial part in cultivating celery plants. However, sometimes when sowing celery seeds, failures occur which result in the seeds wilting and dying due to farmers not always monitoring them. Therefore, the use of monitoring and automation tools is a breakthrough that can make it easier for farmers to monitor when sowing celery seeds. Therefore, in this research, a prototype of an Internet of Things-based celery seeding automation and monitoring tool was designed. The results of system testing show that the overall function of creating a prototype automation tool and monitoring celery seedlings based on the Internet of Things has good performance, all automation systems and monitoring systems work well with the overall test results of the tool reaching 100%.*

Keywords: *Celery (*Apium graveolens*), Internet of Things, automation, monitoring, seeding.*