

ENVIRONMENTAL CONTROL SYSTEM FOR INSECT REARING TANK

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ABSTRACT

An environmental control system is a system that regulates the living conditions of an area. These systems control environmental conditions like temperature, lighting and pressurization.

The system in this project is for an insect rearing tank. Temperature, lighting and water supply needs to be regulated to suit the insects living conditions. Researches had been done to gather information before starting the project. Similar projects, water pumps and misters were studied before designing the system.

The design of the misting system is the main challenge of this project. Design of the system must be done carefully to avoid water leakage. Software programming was done on the MPU and incorporated with the hardware part of the project.

Many experiments were done for the sub systems separately before combining them together. The experiments were on the water level detector module, sensor modules and the sub-systems. After that, a brief discussion on the results of the tests was given.

Overall, the project can be considered as successful because all the objectives were met. Troubleshooting is inconclusive for now because final testing is still going on when this report has been composed. It is being done to further enhance the misting module's timing.