

## **ABSTRACT**

The motivation for this project came from the problem whereby many people want to engage with agricultural activities like Domestic garden but they cannot because they are too busy with other activities. The farmers working in the farms land are solely dependent on the rains. Even if the farm land has a water pump, manual intervention by farmers is required to turn the pump on/off whenever needed.

The aim of the project is to minimize this manual intervention by farmer by using 555 timer circuits.

The project has three parts; the first part is based on literature review, data collection and data analysis. The second on the designing circuit simulation, implementation, testing, and finally report writing. Both parts have been completed, where the constructed prototype was tested and result did match those found during simulation. In conclusion the project is successful since all set objectives have been realized.