## ABSTRACT

Since Android is released, it has been a lot of people of the world who are using android-powered smartphones. There are features on its use to communicate between a gadget that is bluetooth. By leveraging such features optimally can be used as a tool of control. This final project refers to the final project before a prototype, that is by using sensor LDR, but by using sensor LDR felt still less suited to the conditions of the control lights.

Based on the background, in this final project have been designed and implemented a system of lights and garden sprinkler controller by using the arduino uno microcontroller as the main controller, case studies in Telkom University. This tool is able to be controlled remotely using bluetooth shield, so the officer can control lights and water faucets. Button that is in the form of android application bluetooth connection, lights, and water taps. This tool works after officers gave orders On, so the garden lights will light up. Additionally if the user wants to control the tap water, select the button taps, then a garden sprinkler will move. Water out of the tap through the electric solenoid valve as a tap is driven by the electric switch is in the form of relay.

The existence of this tool the user can control lights and garden sprinkler  $\pm 1$  minute can be 10 times the execution using the android Bluetooth communication with control, a maximum of approximately 6 metres with a delay of 0.1 seconds.

Keywords : Garden, Android, Arduino UNO, Bluetooth, Electric Solenoid Valve, Light, Relay