

# ***DESIGN AND CONSTRUCTION OF BIRD CAGE WITH REMOTE CONTROL BASED ON MICROCONTROLLER***

**Bayu Kurniawan**

*Electrical Engineering Study Program, Faculty of Science & Technology*

*University of Technology Yogyakarta*

*Jl. Ringroad Utara Jombor Sleman Yogyakarta*

*E-mail : [kurniawanbayuu97@gmail.com](mailto:kurniawanbayuu97@gmail.com)*

## ***ABSTRACT***

*Birds are a type of animal in the poultry group. Some types of birds vary greatly, from hummingbirds to ostriches, which are very large to reach human height. The number of bird species is estimated at around 8,800 to 10,200 species worldwide, and in Indonesia there are around 1,500 species that can be found, especially songbirds for competitions or just hobbies. For people who are quite busy or often leave the house for a long time outside the city, then the keeper does not have time to control and care for pet birds every day. Monitoring the remaining bird food and drink in the food and drink storage place in the cage is very necessary, because as a solution so that pet bird owners can always know that the bird's food and drink are still available or have run out. The ultrasonic sensor installed in the food and drink place to monitor food and drink, will then send data from the measurement of the remaining food and drink to Wemos D1, Wemos D1 which is already connected to wifi and will send data to the Telegram Bot in the form of a menu to check the remaining food and drink. Bathing and cleaning bird droppings aims to care for the bird. Bird bathing and cleaning of bird droppings once a week for a specified time depending on the owner's needs. The conveyor drive system uses a stepper motor as its drive system, and the bird bath system uses a sprayer pump as a medium for pumping water to be sprayed when the bird bath schedule is run.*

***Keywords:*** *Ultrasonic Sensor, Wemos D1, Telegram Bot, Stepper Motor, Sprayer Pump.*