

### *Abstract*

*Naso gastric tube is a thin plastic hose (pipe nasogastrik) is inserted through the nose, down the esophagus until it reaches the stomach or small intestine. Its main function is to enter a liquid food or medication in patients with reduced consciousness. If the substance can not be given food by mouth, can be given through a tube that is inserted into the digestive tract (enteral nutrition).*

*NGT kedoteran Pump is a device used to feeding in patients with metabolic disorders experienced during the illness that causes the patient not to eat the mouth. This tool is used in a way to enter the food into the hose is inserted into the patient's stomach through the nose, mouth or a small incision in the abdominal wall, using a syringe drive by stepper motors. Existing tools created specifically for only one patient, if the two patients then require two tools.*

*Authors and establishing and modifying the tool entitled "AT89S51 MICROCONTROLLER BASED DUAL PUMP NGT, with the existence of this tool can facilitate the nurse in dealing with two patients in one tool. This tool uses as a controller IC microcontroller AT89S51 all series. And using a stepper motor which is assisted by a series of drivers to set the direction of rotation.*

*Based on the results of measuring the volume of nutrients 25ml Sput an error factor (error) 1.6%, the volume of nutrients 50ml Sput an error factor (error) 0,2%, and volume of nutrients 25ml Sput 2 factor error (error) 1.2%, the volume of nutrients 50ml Syringe 2 factor error (error) 0,12%, results of measurement of time on nutrition 25ml Sput an error factor (error) 0.27%, time on nutrition 50ml Sput an error factor (error) 0.05%, and the time in 25ml nutrient Sput 2 factor error (error) 0.31%, the volume of nutrients 50ml Sput 2 factor error (error) is 0.08%.*

*From the analysis above authors concluded that the level of error (error) either time or volume of nutrient intake is still below the percentage so that means that the author is still feasible modif use or ready for use.*

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*Keywords: Stepper Motor, Stepper Motor Driver, microcontroller.*