

ABSTRACT

Water is a need that will not be abandoned by all humans, if humans lack fluids it can cause dehydration which is very detrimental to the human body. Alkaline water is water that has alkaline properties which has a pH greater than 7. One of the uses of alkaline water is that it can prevent the dangers of osteoporosis [1].

This tool uses the principle of electrolysis where electrolysis is the decomposition reaction of the electrolyte solution by direct current (DC) electricity. The process of electrolysis will occur if you connect the two positive (anode) and negative (cathode) poles. This electrolysis process occurs in a 30 liter container. After the electrolysis process is complete, the water that turns into high pH or alkaline water can be forwarded to the dispenser.

Dispenser is a household tool that can be used to store drinking water. This tool has replaced the kettle, thermos as a container for storing drinking water, but this tool needs to use electricity as its energy source which aims to turn on the dispenser because the dispenser has the function of heating water and cooling water. Filling water in electrolysis containers and water reservoirs / gallons of electrolysis results can be done with a water pump and will stop automatically when the water level approaches the ultrasonic sensor with a predetermined distance. The electrolysis container in this tool with a volume size of 30 liters with an average voltage of 198 v and an average current of 0,1495 A is capable of producing a water pH of 8,99 which means that this tool has succeeded in producing alkaline water.

Keywords: sensor ultrasonik, *water pump*, electrolysis, dispenser, Alkali