

## **ABSTRACT**

To more advanced became one of the impact that affects the environment in the contamination of waters in the community. Water is a source of life for every live animals whether of man, an animal especially in plants. Water use against increase in their daily needs especially in humans as a bath, worship, cleanliness environmental residence and especially for consumption eat and drink. Difficult to obtain clean water that is well, one issue, where clean water is needed especially for drinking water. The only way to can determine the water that is well and not by means of measures levels of acidity and alkalinity of the water.

To these needs then required a design tool with a system of measurement of the ph. Design used is digital ph meters based microcontroller that measurement result displayed with lcd mini. The methodology used to collect any article pertaining to ph, test each output to the censorship of ph when dipped kecairan testing, make program arduino uno, send data from a censorship to ph meters to arduino, showing the results of the measurement of the ph of the sensor inside lcd and compare the results of research with the ph meter tool digital different. From the research is obtainable: (1)The ph meters this can of measuring degrees of acidity fluid / alkali testing 1-10 ph. (2)The the results of data in ph test that can be compared with ph value on the color of litmus paper.

With the finished project it is hoped this will give the results with information on the results of the measurement of the ph in a liquid substance a drink in accordance with means of sensors ph meters portable digital based microcontroller.

Key word : Sensors ph, arduino uno ph meters, lcd digital,drinking water, microcontroller, meters digital ph.