

## ABSTRACT

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*Currently water has become a very important need in our lives. Water itself has many substances in it including pH and TDS or Total Dissolve Solids. Consuming water with a safe pH and TDS is certainly important for us because if we consume water with a pH level that is too acidic or alkaline it will cause muscle, digestive problems, and so on. Then if we consume water with a TDS level that is too high it will result in a decrease in kidney function. Therefore we need a system that can measure the level of pH and TDS in a solution. This system uses a pH sensor and TDS sensor to measure the level of pH and TDS of the solution. Then the sensor data that has been processed will later be displayed in the form of a digital display on the 16x2 LCD. In the process of calibrating the pH sensor and TDS sensor using the linear regression method. Based on the results of the tests that have been carried out, the system can measure pH levels from 3,74 to 9,17 and TDS levels from 54 ppm to 391 ppm.*

*Keywords: pH sensor, TDS sensor, Arduino*