

## **ABSTRACT**

An automatic water meter reader is a device used to automatically record and transmit water usage data displayed on the water meter. Meanwhile, the casing of the automatic water meter reader is a component or part used to protect the components inside the automatic water meter reader. This water meter reader itself consists of casing components, sensor components, and batteries. PT. XYZ is a manufacturing company operating in the electronic and metal sector, particularly in the production of measuring instruments such as water meters, and they aim to create their own automatic water meter reader. In Indonesia, the use of automatic water meter readers is still relatively uncommon. This is because, currently, most Perusahaan Daerah Air Minum or PDAMs still manually record water meters with personnel who have to visit customer homes to record the displayed figures on the water meter (Paksi, et al., 2020). In this case, PT. XYZ is creating a sensor component for the automatic water meter reader and requires a casing for the automatic water meter reader to be compatible with the created sensor component and effectively protect the sensor component. Therefore, the main focus of this study is to assist in designing a prototype casing for the automatic water meter reader using reverse engineering methods to protect the electronic components needed by PT. XYZ without impeding the primary function of these components.

**Keywords** — *PDAM, Casing of Automated Water Meter Reading, Reverse Engineering*