

## ABSTRACT

*LPG gas (Liquefied Petroleum Gas) is one of the needs that is widely used by people, especially households. Its use is easy and practical but has a high level of vulnerability, especially with regard to the danger of gas leaks. Prevention of LPG gas leaks in households needs to be done to avoid the danger of gas cylinder explosions which can cause fatalities. Warnings to homeowners about gas leaks and reducing the gas content in the room need to be done to reduce the risk of gas cylinder explosions. In this research, the construction of an LPG gas leakage protection system for households was carried out. The purpose of this research is to design a security system for gas levels in the event of a gas leak, to provide information on the occurrence of a gas leak via telegram. The results obtained from this study indicate that the LPG gas leakage protection system in households is made to minimize the occurrence of fires or gas explosions by removing the gas content that has settled in a closed room using a blower. In this study the blower used has a speed of 5000 rpm which is able to remove and regulate the condition of gas leaks in an enclosed space 9 times faster than without a blower.*

*Keywords: Gas Leakage, LPG, MQ-6, Blower*