

## **WHO DOES THE PROBLEM AFFECT?**

The purpose of this project is to detect the presence of LPG leakage as a part of a safety system and save the workers in the gas industries and casualties in the houses.

## **WHAT IS THE ISSUE?**

The gas leaked by an LPG cylinder if inhaled can lead to suffocation, as well as cause difficulty in walking or speaking. Your nervous system can get affected, while you can experience heart attack and rise in your blood pressure. Hence, it is important to be careful if you detect a LPY cylinder leak.

## **WHAT IS THE IMPACT OF THE ISSUE?**

The sensor-enabled solution helps prevent the high risk of gas explosions and affecting any casualties within and outside the premises. The gas sensors help detect the concentration of the gases present in the atmosphere to avoid hazardous consequences like fire breakouts.

## **WHAT WOULD HAPPEN IF WE DIDN'T SOLVE THE PROBLEM?**

It may lead to suffocation when inhaled and may lead to explosion. Due to the explosion of LPG, the number of deaths has been increased in recent years. To avoid this problem there is a need for a system to detect the leakage of LPG.

## **WHAT WOULD HAPPEN WHEN IT IS FIXED?**

If the gas leaks, the sensor will send its data wirelessly to Arduino. Then, explosion prevention system will be activated. The system will turn the alarm/buzzer on, automatically releases gas regulator, and neutralizes the air with the exhaust fan and also intimate the user.

## **WHY IT IS IMPORTANT THAT WE FIX THE PROBLEM?**

A gas detector can sound an alarm to operators in the area where the leak is occurring, giving them the opportunity to leave. This type of device is important because there are many gases that can be harmful to organic life, such as humans or animals.