Experiment 1- **Design a system for LPG gas burners such that, whenever it is turned on, a green LED starts blinking and if it stays on for more than 2000 ms, instead of the green LED, a Red LED starts blinking.**

Circuit Diagram:

Theory-

1. Concepts Used:

Working of Arduino UNO

Coding in Arduino IDE and syntax of the same

Working of LEDs (Light emitting diodes) and gas detector

Making connections on a Breadboard.

2. Learning & Observations:

Use of Arduino board and coding in Arduino IDE: Arduino board is very systematical way to show how the circuit is working. Coding syntax is this is similar to the coding in C language which we already know. I learnt the importance of delay function as the micro-controller is fast and capable.

I observed that there are many other interesting functions we can perform with Arduino like blinking of LED with Gas detector.

3. Problems & Troubleshooting-

I encountered a problem in making connections on the breadboard and while uploading the code and I rectified by retrying and removing all the errors.

4. Precautions-

Remember to declare all the ports in use in digital input/output in the right way.

Check whether all your wire connections are correct and tight.

Delay gap should be correct for testing the program .

5. Learning Outcomes-

Skills that I have acquired are knowledge of how to use Arduino UNO with components like LDR to make systems like automatic night lighting