Empathy Map Canvas

Gain insight and understanding on solving customer problems.

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Build empathy and keep your focus on the user by putting yourself in their shoes.

What do they THINK AND FEEL?

what really counts
major preoccupations
worries & aspirations

Our main aim is to proposing the gas leakage system for society where each flat have gas leakage detector hardware. This will detect the harmful gases in environment and alerting to the society member through alarm and sending notification.

Since many facilities will have numerous types of gases at their sites, it is crucial to select detection systems that include multi gas detectors. Though these detectors often cost more, they are long-lasting, can be used in virtually any type of facility and work environment.

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The gas leakage is sensed by MQ2 sensor which sends a high pulse to Mc which in turn updates it in the IoT system, and the buzzer will be heard in the RFRx kit (6).

Mercaptan smells like sulphur, or rotten eggs, to help you identify gas leaks. But you may not smell anything if the leak is very small.

If these gases exceed the normal level then an alarm is generated immediately and also an alert message (SMS) is sent to the authorized person through the GSM.

Our device consists of three main parts. a) Detection System This part consists of a gas sensor MQ5 and this will continuously monitor the gas concentration. b) Prevention System This part consists of a special type of Gas valve that we will be designing that will be similar to present regular valves but a servo motor will be attached to its control knob to allow automatic and as well as manual control. A connection to the exhaust fan and window is made, in which the sensor would make it run in case of gas detection. All these parts will be interfaced with Arduino Uno which will be controlling the whole device.

Leakage of gas is a major issue in the industrial sector, residential buildings, and gas-powered vehicles, one of the preventive methods to stop accidents associated with gas leakage is to install gas leakage detection devices.

What do they HEAR?

what friends say
what boss say
what influencers say

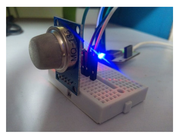
With 140 deaths per year linked to gas leaks, gas safety is something that every household should take seriously. LPG cylinders are commonly used in every house and are something we are dependent on. But these harmless looking cylinders injured hundreds of people every year. Natural gas is safe when installed and used correctly. But still, gas leaks can occur. So, here's what you should do if you suspect a gas leak or when that pungent smell hits your nostrils.

If you see an unusual cloud of mist or fog around your property, it could mean a ruptured gas line. Call your gas company right away. If you find a gas leak: If you detect a gas leak, open up some windows and doors, and leave the area immediately.

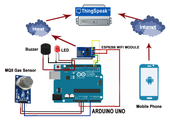
use of toxic gases and asphyxiants in their facilities.

What do they SEE?

environment
friends
what the market offers



That is where a gas detection system is necessary at accident-prone locations, including households, to continuously monitor any kind of leakage - regardless of the human senses - and send an alert to the end-user.



What do they SAY AND DO?

attitude in public
appearance
behavior towards others

THE SOLUTION COULD DETECT GAS LEAKAGE, SEND AN ALERT TO THE END-USER VIA AN SMS OR A BUZZER, AND FEATURE AN EXHAUST FAN THAT GETS ACTIVATED ONCE THE GAS OR FIRE IS DETECTED. THE FAN AIMS TO PUSH THE AIR OUTSIDE.

Imagine that one Tuesday evening in the middle of the semester you see your friend Joachim. He's just finished his dinner and tells you that he's planning to head home to study and work on a term paper. When you see him the next day, however, he seems a bit shaken. It turns out that instead of going home to study, Joachim spent the entire evening listening to music at a rock club in town. He says that he had a great time, stayed up late to watch the last set, and didn't get home until the crack of dawn. And he woke up so late this morning that he missed his first

The sensors are widely used to detect essence of propane, iso-butane, LPG and even smoke. The sensor has an advantage to combine a sensitivity response time. If the LPG sensor senses gas leak from work place or home, sensor output goes to active low (logic-0) condition

Leakage of gas is a major issue in the industrial sector, residential buildings, and gas-powered vehicles, one of the preventive methods to stop accidents associated with gas leakage is to install gas leakage detection devices.

The sensor-enabled solution reduces the risk of gas explosions and any casualties inside or outside the main premises.

it is little sensitive to smoke then it is not perfectly response for LPG detection.its sensitivity depends in humidity and temperature.

PAIN

fears
frustrations
obstacles

The gasses are toxic in nature, resulting in human unconsciousness and even death if consumed in larger quantities. Moreover, gaseous blasts are another disaster that everyone - working in a factory or at home - would want to avoid at all costs!

Us humans need oxygen to breathe, and the lack of it can be a cause of concern during mining explorations. Let us not forget that there is always the risk of poisonous gas leaks when mining at great underground levels.

This primary gas leakage system can only be used for leakage monitoring inside a building as laying the path and detection of gas leaks outside can be very troublesome For this design.

order to avoid any hazard due fire and gas leakage in a petrochemical industry we will design an integrated system which will monitor timely gas leakage in any area around the plant using Arduino which is a wireless communication device

GAIN

"wants" / needs
measures of success
obstacles

Keeping the levels of methane, hydrogen sulfide and carbon monoxide in check is essential in any commercial or personal territory to avoid poisonous gas leaks and blasts.

It is a leading sensor in the field of safety detection.

The catalytic combustion gas sensor has accurate measurement, fast response and long life. The output of the sensor is directly related to the explosion hazard of the environment.

Unidentifiable gas leaks give rise to explosions that are harmful to the employees working in the hazardous environment. There comes a need to install smart systems to accurately identify combustible, flammable and toxic gases along with detecting oxygen depletion in industry premises for improved safety.

The presence of these gases can be easily detected in the industrial facilities and commercial buildings with the help of IoT-powered gas monitoring solution.

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.

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