Smoke Detector

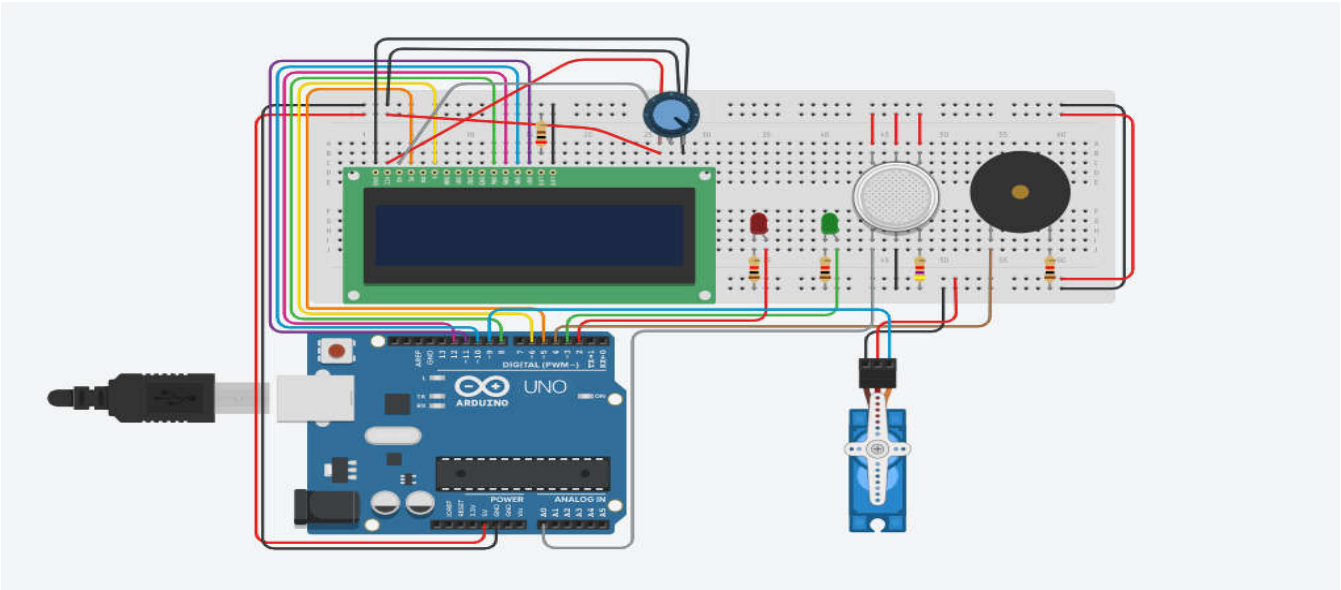
Smoke:-

Smok leads to disease and disability and harms nearly every organ of the body. More than 16 million Americans are living with a disease caused by smoking. For every person who dies because of smoking, at least 30 people live with a serious smoking-related illness.

Causes:

Smoke causes
cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis. Smoking also increases the risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis.

Our main idea of project:-



We want to make a smoke detector and water falling when smoke is going on.

The materials:-

- **Arduino Uno:**

The Arduino Uno is an open-source microcontroller board based on the Microchip ATmega328P microcontroller and developed by Arduino. The board is equipped with sets of digital and analog input/output (I/O) pins that may be interfaced to various expansion boards (shields) and other circuits.

- **LEDs:**

A light object to warning the people if there is smoke or not.

- ## Servo motor:

A servo motor is a rotary actuator or linear actuator that allows for precise control of angular or linear position, velocity, and acceleration. It consists of a suitable motor coupled to a sensor for position feedback. It also requires a relatively sophisticated controller, often a dedicated module designed specifically for use with servomotors.

- ## LCD:

A **liquid-crystal display** (LCD) is a flat-panel display or another electronically modulated optical device that uses the light-modulating properties of liquid crystals combined with polarizers. Liquid crystals do not emit light directly, instead of using a backlight or reflector to produce images in color or monochrome.

- ## Gas sensor(MQ2):

A **gas detector** is a device that detects the presence of gases in an area, often as part of a safety system. A gas detector can sound an alarm to operators in the area where the leak is occurring, giving them the opportunity to leave.

- ## Buzzer:

An Arduino buzzer is also called a piezo buzzer. It is basically a tiny speaker that you can connect directly to an Arduino. You can make it sound a tone at a frequency you set. The buzzer produces sound based on the reverse of the piezoelectric effect.

- ## Potentiometer:

A potentiometer is a three-terminal resistor with a sliding or rotating contact that forms an adjustable voltage divider.[1] If only two terminals are used, one end and the wiper, it acts as a variable resistor or rheostat.

The code:-

https://drive.google.com/drive/folders/1W7y9kTkjlC4FomPLLDXoqJoYg32OJVDZ?usp=sharing

The project:-