MPCA LAB MINI PROJECT

PROJECT TITLE: ENVIRONMENT MONITORING-DROUGHT
SECTION: B2
STUDENTS NAME:CHARUSHREE A &BHAVANA YADAV K
SRN's: PES1UG19CS124
PES1UG19CS110

PROBLEM STATEMENT

environment monitoring system : drought

INTRODUCTION

A **drought** is an event of prolonged shortages in the water supply, whether atmospheric (below-average precipitation), surface water or ground water.

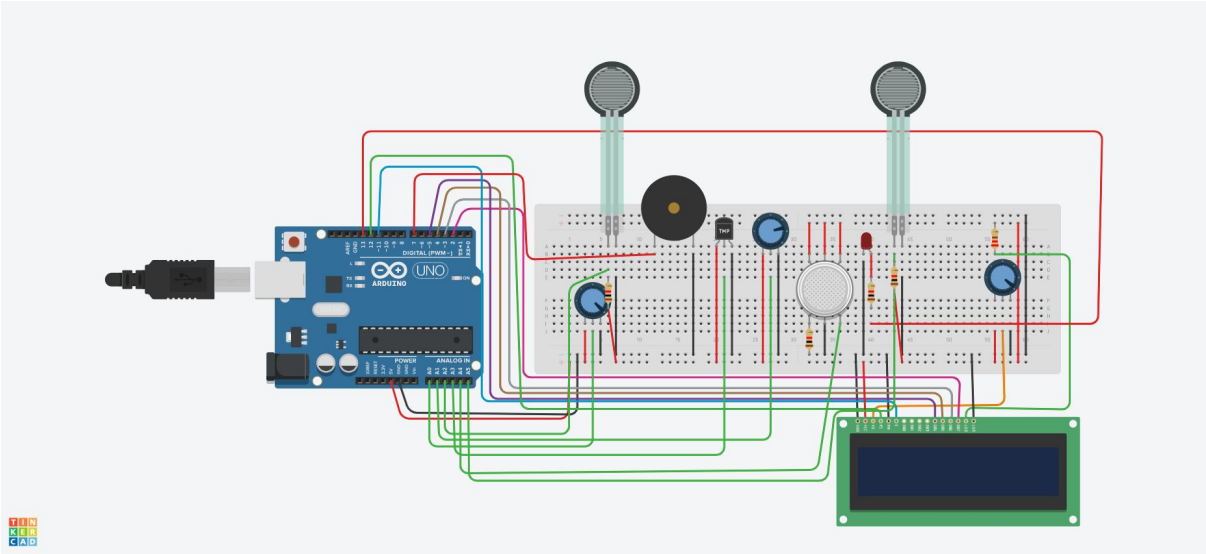
A drought can last for months or years, or may be declared after as few as 15 days.

It can have a substantial impact on the ecosystem and agriculture of the affected region[2] and harm to the local economy.

FACTORS AFFECTING DROUGHT

1. **MOISTURE**
2. **RAINFALL**
3. **CARBON DIOXIDE LEVEL**
4. **TEMPERATURE:**
5. **AIR VELOCITY:**

BLOCK DIAGRAM



REQUIRED COMPONENTS

Name	Quantity	Component
U1	1	Arduino Uno R3
U2	1	LCD 16 x 2
R1	1	220 Ω Resistor
Rpot1	1	250 Ω Potentiometer
Rpot2 Rpot3	2	250 kΩ Potentiometer
R2 R7	2	Force Sensor
PIEZO1	1	Piezo
U3	1	Temperature Sensor [TMP36]
GAS1	1	Gas Sensor
R3 R5 R6 R8	4	1 kΩ Resistor
D1	1	Red LED

PROJECT DESCRIPTION/DEMONSTRATION

https://www.tinkercad.com/things/7R4C8hCppWV-drought/editel

APPLICATIONS

Helps us to detect drought severity in the area

REFERENCES(Website links, Books etc.)

https://www.downtoearth.org.in/indepth/drought-monitoring-untapped-data-15118

https://www.sciencedaily.com/releases/2016/07/160705102640.htm

https://extension.okstate.edu/fact-sheets/tracking-drought-using-soil-moisture-information.html#:~:text=Agricultural%20drought%20refers%20to%20shortages,crops%20in%20sensitive%20growth%20stages.

https://www.nrdc.org/stories/drought-everything-you-need-know

THANK YOU