

## SAVING LIVES FROM ONE OF THE MOST EMERGING MANMADE DISASTER

**\*PROBLEM:** Today we can see numerous news of buildings falling, constructional errors (like public centric important places just fall on public)

ofcourse they were made for public uses but i am pretty sure these all accidents arent a part of uses and no one ever will like to use that resources in that way.

I mean airports are made for flight landing not for airport landing or switching people to permanent aeroplane mode this was \*just a\* example taken from a lot of constructional failures.

**CAUSES OF SUCH FAILURES:-**

1) CORRUPTION

2) (Public awarness) People are more interested in watching JCB doing their work than the quality of work

3) Lack of tech to check quality of constructional works, like even in this generation constructional works are checked manually by some assigned person which creates a opportunity of corruption

\* By checking quality of construction i mean to say is we can check for strength of walls, roads and more public properties (and here my solution comes)

**THE SOLUTION:** we can build a device using ultrasonic sonar sensors and tech which checks cavities cracks and strength of construction i.e. walls and roads etc

This device can be used for personal use of constructional checks too before buying any property

**IDEA OF MODEL:** We will use majorly 2 main component ULTRASONIC SONAR sensor and ARDUINO UNO, ultrasonic sensors are majorly used for measuring distance but we can use it for observing structure patterns of a construction. Basically we will send and receive waves through Ultrasonic sensor and will project the data on intensity time graph and will observe the variation in received ECHO for eg (i have attached 3 images of showing stages of capturing a cavity or big cracks and this was just a example of capturing cavity we can find a lot of things by projecting and observing different graphs)

we can even find what strengthful material is used we can check that used material is what it was promised to be used.

WORD EXPLANATION of that images is if we send waves and receive waves then if everything is normal we will get projection of a send wave and a received echo but if there is a cavity or deformation we will receive a different projections for example we will receive 2 echo projections at starting of a cavity and later we can measure the strength of cavity by observing intensity and at the end of cavity we will receive a single small faster intensity projection (echo projection comes faster when there is cavity) and after that we will receive normal projections of echo as i mentioned above this will just a single use from various uses of that device we can develop a code and website through which even a normal common person with zero idea can also check that website will show results using projections of that graphs