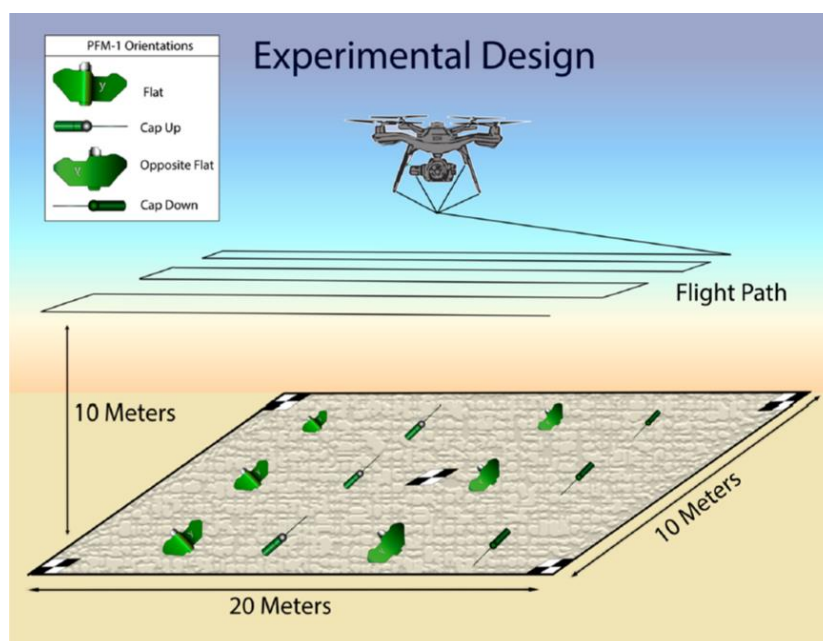


PROJECT DRONA (BOMB DETECTION)

ARTIFICIAL INTELLIGENCE AND IOT BASED PRODUCT

ABSTRACT: Explosive landmines have cost the lives of hundreds in several countries. The military has been the first to deploy machines as an attempt to overcome the risks involved when the landmine detection process is carried out by humans. It is a difficult task to identify the bomb by using bomb detectors that may lead to death of the person. So, these drones are used to detect bombs by travelling through air which is controlled from far away. It can also detect the obstacles and sense the temperature & humidity as well as detect the various types of bombs in most dense areas.

INTRODUCTION: The military has been the first to deploy machines as an attempt to overcome the risks involved when the landmine detection process is carried out by humans. Currently, there are fully autonomous systems which do not require a human operator for monitoring both detection and deactivation of explosive landmines. Our goal is to integrate and evaluate a set of low-cost technologies that allow the detection of explosive landmines autonomously and without compromising the mission. The goal is not only to detect fully visible landmines but also those partially buried. The fully autonomous systems which do not require a human operator for monitoring both detection and deactivation of explosive landmines.

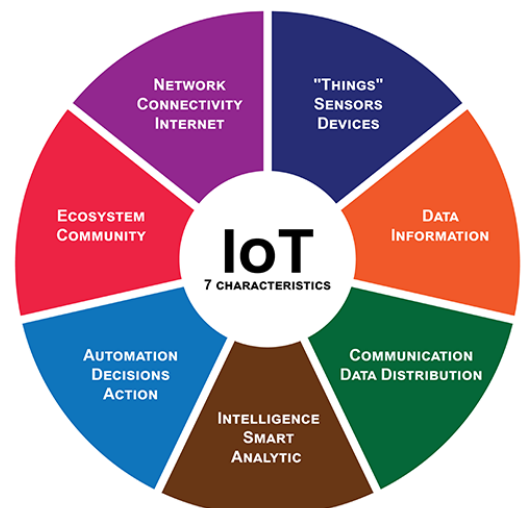


TECHNOLOGIES TO BE USED: We are tending to make Drona 75% Autonomous using machine learning and deep learning models. So, the Technologies to be used are:

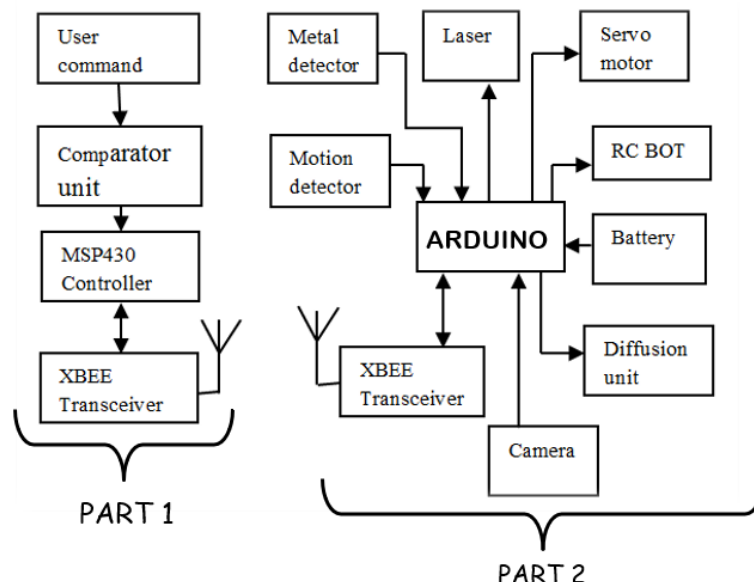
- Hardware level: Arduino and Raspberry Pi Model
- Software Level: Machine Learning and Deep Learning
- Database: MySQL Cloud Server

Sensors to be used:

- BLUETOOTH MODULE HC-05
- KNOCK SENSOR
- PIR SENSOR
- EIT (Electrical Impedance Tomography)
- X-Ray Backscatter
- Explosives Vapor Detection Technique
- IR SENSOR
- ULTRASONIC SENSOR
- GPRS SENSOR



EXPECTING RESULTS: By using this method we are aimed to reduce the death of people and protect them from bombs. We can easily detect the bomb by controlling the drone up to range of 15 kms. It can also detect the enemies from the long distance and can release the arrows to give protection from enemies.



CONCLUSION: These days bomb attacks are increasing to protect people without disturbing them is major problem. By observing the density of people the bomb detectors can detect the bomb. When drone is activated it can be controlled by using flight controller. Our results demonstrate that the integration of several low-cost out-of-the-box technologies can be used to improve the efficiency of detecting man-made thermal anomalies,