



X



# GEEK VERSE

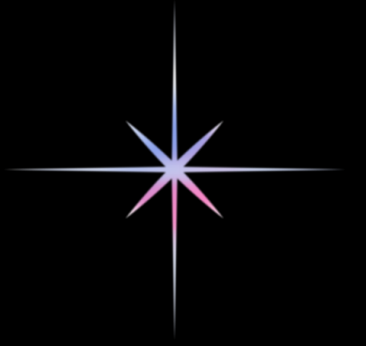
# PROJECT NAME

TEKNO VALIANTS

ADITYA SHARMA

IOT / BOMB DISPOSAL



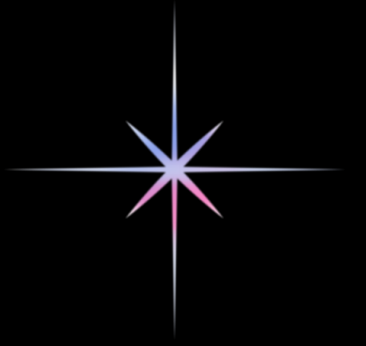


# Problem Statement

In the face of increasing security threats, bomb disposal units face critical challenges in neutralizing explosive devices safely. Traditional methods expose human operators to life-threatening risks during bomb disposal operations. There is an urgent need for an innovative, remotely-operated solution that can assist in identifying, neutralizing, and securing bomb threats from a safe distance.



# Proposed Solution

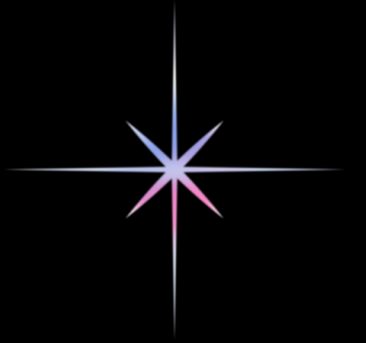


The EOD-X robot is designed to address the critical need for safe, efficient, and remote-controlled bomb disposal in hazardous environments. Our solution leverages cutting-edge IoT technologies, advanced robotics, and real-time video streaming to provide bomb disposal units with a reliable tool for neutralizing explosive threats without risking human lives.

- REMOTE CONTROL VIA BLUETOOTH
- REAL-TIME VIDEO FEED
- DUAL MANIPULATION ARMS
- HIGHLY MANEUVERABLE BASE
- EMERGENCY STOP & MANUAL OVERRIDE
- BATTERY-POWERED OPERATION



# TechStack



## SECTION 1

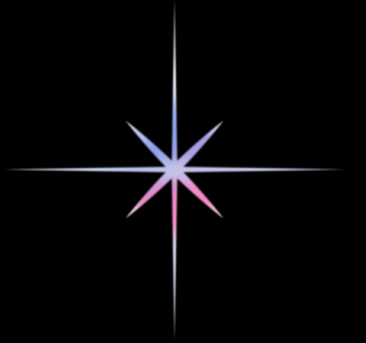
- Arduino– Microcontroller for motor control
- L298N Motor Driver – For dual-motor movement control
- HC-05 Bluetooth Module – Wireless control via mobile
- Servo Motors– Used in the dual manipulation arms
- Wireless Camera Module – Real-time video streaming

## SECTION 2

- Arduino IDE – Embedded C/C++ programming for hardware control
- Git & GitHub – Version control and project repository
- MIT App Inventor – For building a mobile application
- Tinkercad – For circuit simulation and design visualization







# Economic Potential

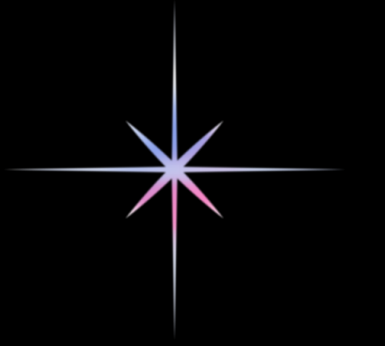
## Feasibility

EOD-X uses affordable, easily available components like Arduino, servo motors, and Bluetooth. The system is simple to assemble and code, making it practical for rapid prototyping. Minor challenges like video latency and motor sync are solvable with testing.

## Viability

With its low cost and modular design, EOD-X can be scaled for defense, disaster relief, and training purposes. It's a sustainable solution that can adapt with new tech like AI or Wi-Fi, ensuring long-term relevance.





# Conclusion Summary

The EOD-X robot presents a smart, scalable, and safe solution for bomb disposal operations. By integrating IoT, robotics, and real-time control, it reduces human risk while maintaining affordability and adaptability. With continued development, EOD-X has the potential to become a vital tool for defense and emergency response teams.

# Team Details

ADITYA SHARMA

PULKIT AGGARWAL