Project Title

ULTRASONIC BASED ANIMAL DETECTOR SENSOR

Problem Statement

Farmers often face serious crop losses because wild and stray animals enter fields and feed on growing plants. Animals such as cattle, monkeys, and wild boars damage crops at different growth stages, reducing yield and quality. Many farms are open or poorly fenced, making them easy targets. Guarding fields all day and night is difficult, time consuming, and costly. Continuous crop damage affects farmer income, food supply, and morale, creating stress and uncertainty for rural families who depend on agriculture for their livelihood and survival.

Project Team - Civil



TEAM 4 - BRAINSTROMS

Team Members

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SDG 2 – Zero Hunger

SDG Goals

SDG 15 – Life on Land

Solution

A smart crop protection system can help farmers keep animals away without harming them. The system uses motion or infrared sensors placed around the field to detect animal movement near crops. When an animal is detected, the system automatically activates deterrents such as flashing lights, sound alarms, or mild vibrations that scare animals and push them away. These alerts are safe for animals and do not affect soil or crops. The setup can run on solar power and work day and night with little supervision. Farmers do not need to guard fields constantly, saving time and labor. The system is low cost and suitable for small farms. By preventing frequent damage, it protects yield, stabilizes farmer income, and reduces human–animal conflict. It also supports sustainable farming by avoiding harmful chemicals or traps. With reliable protection, farmers can focus on cultivation while crops grow safely until harvest.



