TEAM NO – 1: Bird Repeller Using Open CV

MOTIVATION:

I grew up in a farming village heavily dependent on agriculture for income. Farming had its challenges, including deterring birds from damaging our crops. To ease the burden on farmers, we developed this device. Our main goal is to reduce the effort required in farm fields.

PROBLEM DESCRIPTION:

We aim to create a bird repeller system using OpenCV for image classification. This system will detect birds in farm fields and trigger natural distress calls through speakers to deter them. Our cost-effective solution is designed to decrease farmers' expenses on bird repellent methods, enhancing crop protection while minimizing environmental impact. It offers an innovative and humane approach to bird control in agriculture.

SOCIAL BENEFITS:

* Reduced effort for farmers in deterring birds.
* Decreased costs for farmers who would otherwise hire individuals to deter birds.
* Enhanced safety for birds, preventing collisions with windmills.

INNOVATION AND UNIQUENESS:

Our innovation lies in using computer vision (OpenCV) for real-time bird detection, offering a proactive and automated response to bird presence. Additionally, the use of natural distress calls adds a humane and eco-friendly element, setting it apart from conventional bird repellent methods.

FEASIBLE SOLUTION:

The proposed system is a practical solution for bird control in agriculture, as it leverages cost-effective and widely available technology (OpenCV) for bird detection. It reduces the need for costly and potentially harmful chemical repellents, making it economically viable for farmers. By using natural distress calls, it offers an environmentally friendly and non-invasive approach to bird deterrence. The real-time response further enhances its effectiveness, reducing crop damage. Moreover, it has the potential for scalability and adaptability to various farm sizes and bird species, making it a practical choice for farmers.

 