June 2023

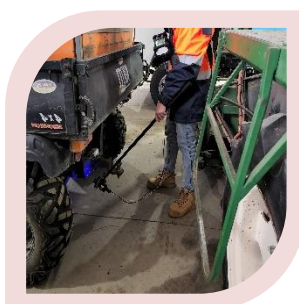# Handheld camera pest detection device with self-learning technology

We are developing an exciting new handheld camera system in partnership with Australian company Intelligent System Design.

The camera system utilises two lens types, a visible (red, green, blue) and a hyperspectral lens that can analyse a wider spectrum of light that can't be seen by the human eye.

Combined with a self-learning artificial intelligence detection algorithm, we can train it to detect key exotic pests like khapra beetle, invasive ants, and also weed seeds.

The handheld camera edge-processing capability allows us to in real-time detect the presence of exotic pests and seeds hiding in hard-to-reach and difficult-to-inspect areas of sea containers and warehouses. It will also help save time with the laborious task of processing biosecurity samples.

We are currently working towards the user-testing and verification trials of the prototype device in an initial set of use-cases and environments where goods and containers are inspected.

This work is part of the Hitchhiker Pest Program.

Scan the QR code to learn more about hitchhiker pests and how you can help look out for them.

Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.