

IOWN INTEGRAL

NTT R&D FORUM 2024

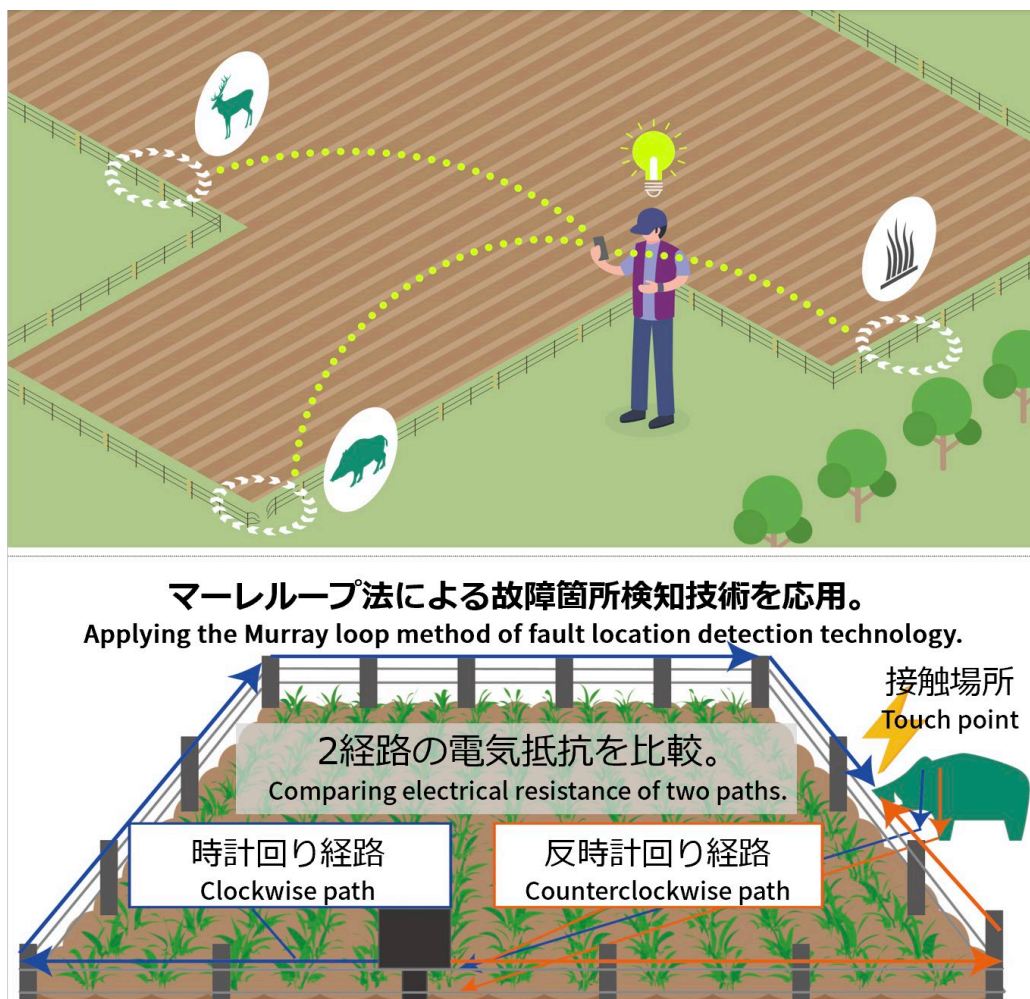
BUSINESS

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Electric fence capable of detecting touches by animals

An electric fence that detects where animals have touched,
making agricultural sites safer and more convenient

#Customer Experience Value Creation
#Productivity Improvement #Regional Revitalization



///Technical Issue

Current electric fences can't detect contact points with animals or weeds, making it hard to manage issues like short circuits or disconnections.

///Research Goal

An electric fence which detects touches by animals and weeds, ensuring the safety of farmers while reducing the burden of electric fence maintenance.

---Technology

DOCOMO's original large scale touch sensor that utilizes the Murray loop method used to detect broken wires in underground cables.
Circuit design that allows existing electric fence wires to be used as touch sensors without modification.

---Applicable Business

By installing on farmlands, the system can reduce the burden of electric fence maintenance by detecting touches by animals and weeds, and help understand the ecosystem.
By installing on pastureland, it can detect touches by livestock and detect where escapes are predicted.
By introducing in the security industry, it can provide crime prevention measures by detecting touches to wires during intrusion. (Technology to be established in Q2/2025)

---Novelty

Touch detection on long-distance electric fences is accurate within a few meters. Installing a single device for touch sensing is more cost-effective and scalable than using multiple cameras and sensors.

Exhibitors= NTT DOCOMO, INC Related URL = [Technology Introduction Video](#)

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