INTELLI-RANCH

AUTONOMOUS CYBER-PHYSICAL LIVESTOCK MANAGEMENT WITH INTELLIGENCE-INTEGRATED UAV'S, ROBOTS, & SENSORS

theGOAL

Real-time monitoring of livestock and forage quality that is cost-efficient and respects data privacy using active sensors, UAVs, and robots.

theSTATS

cattle currently feed on grazing land

94,400,000

38,000,000

acres are owned/managed by ranchers

theCOMPONENTS

+ camera-enabled drones & robots with health sensors & data analytic software & interfaces

+ acquisition, adaptive flight path optimization & sensor selection strategies for most actionable information

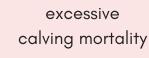+ hardware accelerator for adaptive sensing, planning, & control to minimize power consumption

+ privacy integrated into data analytics & autonomous tracking & monitoring system

thePROBLEM

excessive calving mortality

security breakdowns

predator attacks
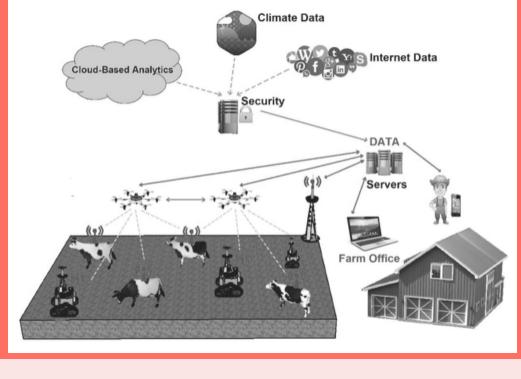
unpredicted & untreated diseases

cost & availability of labor

unpredicted weather patterns

a visual representation of the relationships between servers, data, and farms using Intelli-Ranch

theIMPACT

+ predator warnings

+ disease & diagnostic information

+ climate prediction

+ commercial spread of tech

INTELLI-RANCH BY DETEC**DRONE**