Application Note: PRD-IO

Remote Agricultural Control & Monitoring

The Challenge

Managing remote agricultural equipment across vast sites presents three main challenges:

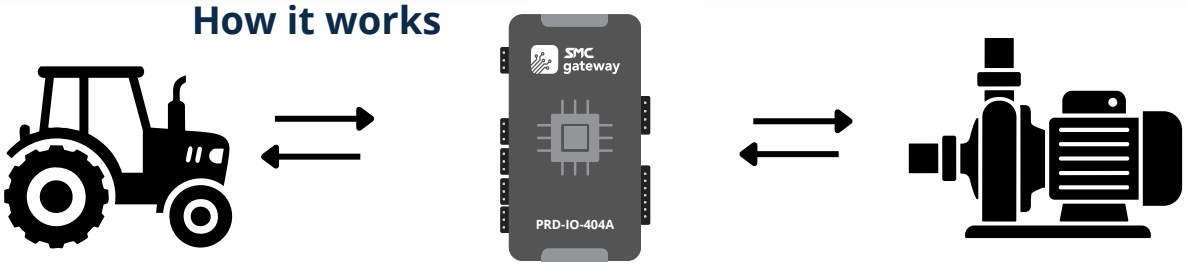
- Costly Inspections: Daily, fuel-heavy drives are required to check levels or reset pumps.
- Mobile Blackspots: Unreliable cellular coverage renders standard cloud sensors useless.
- Delayed Discovery: Undetected equipment failures can quickly harm crops or livestock.

The Solution

The PRD-IO links your two-way radio network directly to remote farm infrastructure, providing:

- Direct Control: Start, stop, and monitor distant equipment straight from the tractor cab.
- Instant Alerts: Receive automated radio texts the moment water levels drop or systems trip.
- Independent Connectivity: Operates on private radio frequencies—no unreliable cellular networks or monthly SIM fees required.

How it works



REMOTE COMMAND
(farmer sends a "Pump 1 ON" text message from their radio)

PRD-IO INTERFACE
(The unit receives the text, triggers a relay to start the pump, and actively monitors the pipe's flow sensor.)

VERIFIED STATUS
(The unit replies back to the radio with "Pump 1 Running" or instantly alerts the farmer if water fails to flow)

End User Benefits

- Reduce site inspections
- Bypass cellular blackspots
- Instant fault alerts
- Leverage existing radios

