www.cowshell.co.kr

CowShell

더 나은 결정, 더 스마트한 농장의 시작

Better Decisions for Smarter Farms

"There's a lot of cattle to manage, and a systematic management is necessary"

Entrust the observation and management of in-calf cow to CowShell!

Why is CowShell necessary in in-calf cattle management?

- Monitor estrus for optimum time of insemination
- Pre-predict calving

▶

- Non-pregnant period minimization
- Stillbirth rate reduction
- Fixed cost reduction

▶



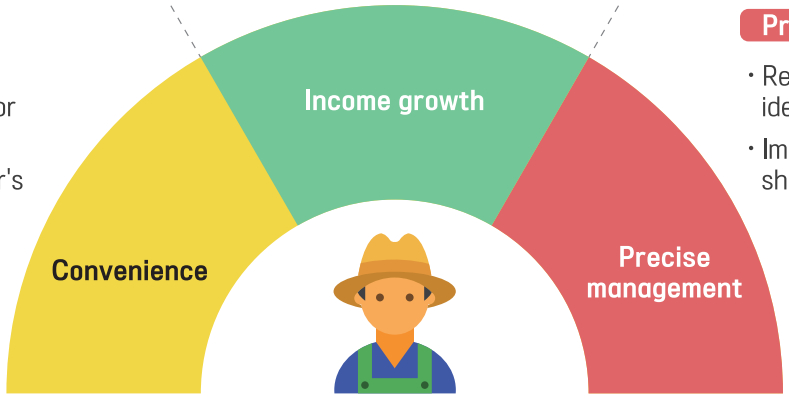
Farm productivity improvement

Income growth

- Labor reduction
- Increased production
- Improved quality

Convenience

- Farm management available at home or while travelling
- Improve the farmer's quality of life



Precise management

- Real-time object identification
- Improvement of livestock shed environment(optimal)

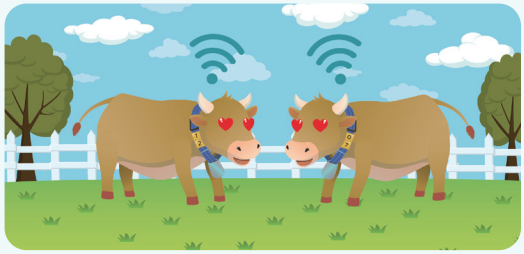
Safe to leave the shed

- Real-time monitoring based on livestock biometric information
- Remotely identify the situation
- Increase productivity with data-based cattle management



Detect estrus in early stage

- Detect the cattle's estrus and notify in a timely manner
- Closely detect mounting behaviors and symptoms of anxiety



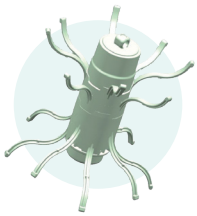
CowShell product composition



HeatCon

Estrus detection sensor

Predicts cattle's estrus and notifies ideal timing for artificial insemination



NariCon

Calving detection sensor

Predicts cattle's calving and notifies the beginning

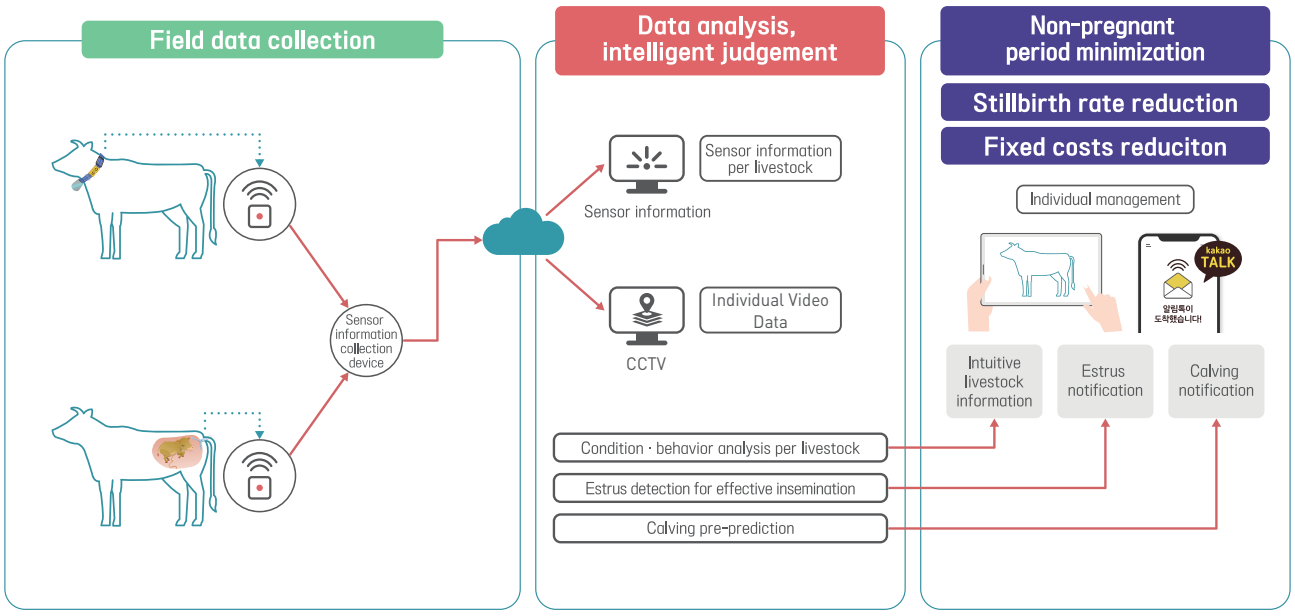


CowShell Monitor

Sensor-integrated monitoring system

Intelligent Decision-Making Service Based on Biometric Data Analysis for Cattle

CowShell process

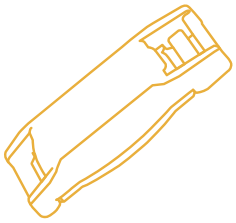


- Collects biometric sensor data through RF
- Wireless Transfer of Raw Biometric Data Collected via Sensors
- Convenient form for installation and maintenance considering volume, weight, dust absorption, etc.

CowShell

HeatCon

Estrus detection sensor



Product description

Estrus detection sensor detects cattle's estrus and informs the user the ideal timing for artificial insemination

- Attach around the cattle's neck(form of a collar)
- Collects real-time data of cattle's estrus from motion sensor, etc., and send to the server. Subsequently, behavioral analysis is conducted to notify the ideal time for artificial insemination to the user

Product composition

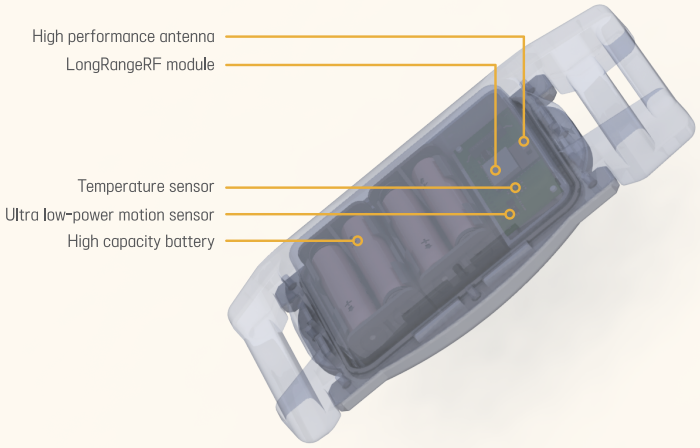
- Sensor module
- Collar(band)

Product standard

138mm x 77mm x 21mm

Composition of sensor module

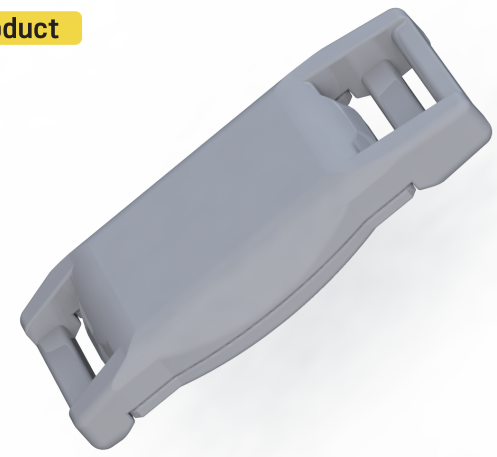
- RF module
- 3-axis MEMS
- Pressure sensor
- Temperature sensor
- AAA Battery x 4ea
- PC Material



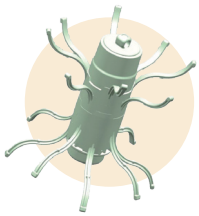
Product performance

- Data Transmission Interval : 10 minutes
- Data Transmission Range : 100M

Product



Related Product



NariCon

Calving Detection Sensor Device

Predicts cattle's calving and notifies the beginning



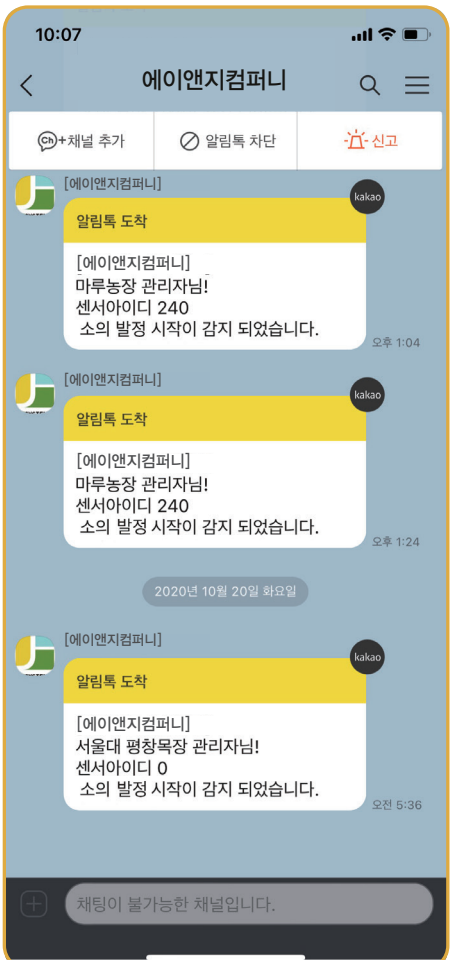
CowShell Monitor

Sensor-integrated monitoring system

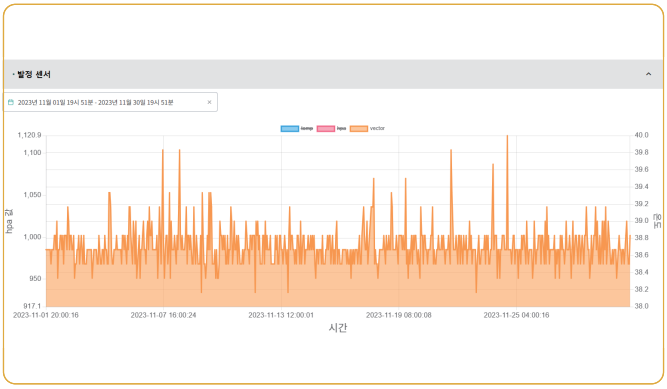
Biometric Data-Based Analysis and Intelligent Decision-Making Service for Cattle

- Management of farm operation data for users
- Individual-based estrus and calving data management
- Stable cloud-based service
- Event notification feature

Event notification feature



Estrus sensor monitor



CCTV Monitoring



CowShell

NariCon
Calving detection sensor



Product description

Calving detection sensor detects the beginning of the calving and notifies the user

- Inserted near the cervix ~3 weeks before expected calving
- Expelled with amniotic fluid at labor onset
- Detects calving via changes in movement, pressure, and temperature

Product composition

- Reusable sensing device
- Single-use kit for secure placement
- Insertion tool

Product standard

Sensor : length 100mm X diameter 25mm, 38g

Single-use kit : length 101mm X diameter 115mm, 35g

Composition of sensor module

- RF module(LoRa)
- 3-axis MEMS
- Pressure sensor
- Temperature sensor
- Lithium-ion secondary battery

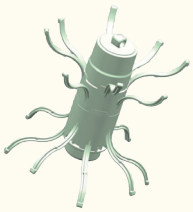
Inner Housing



High-Capacity Battery
Precision Temp Sensor
Low-Power Motion Sensor
High-Gain Antenna

+

Outer Case



Transformable Wing & Ring
Waterproof & Anti-Discharge Case

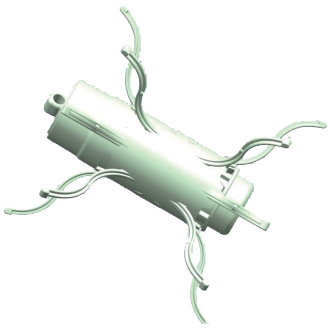
Product performance

Sensor data transmission
- Cycle : Configurable (min. 20 seconds)
- Distance : Maximum range: 10 km

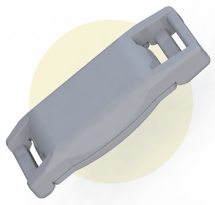
Caution

*Do not use over 3 consecutive weeks

Example of deformation in case of insertion



Related Product



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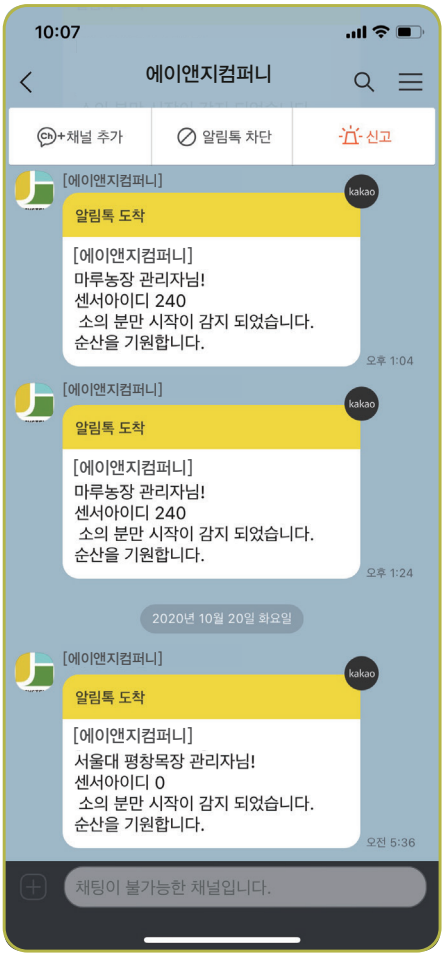
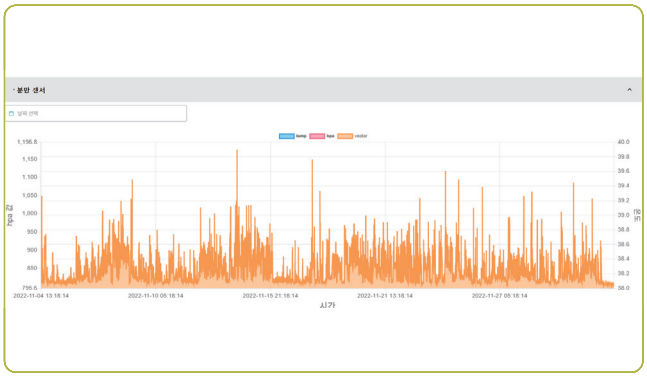


Delivery sensor monitor



CCTV Monitoring




CowShell