



PROMPT ANIMAL HEAT DETECTION SYSTEM

# How do we keep it pure?

Prompt provides innovative solutions for an efficient dairy procurement supply chain. From farm management and milk collection to quality analysis and preservation, we have different equipment and software to ensure that the purity of milk is retained at every step. Our unique offering, the Animal Wearable is a comfortable non-invasive IoT (Internet of Things) solution designed for detecting the onset of the cow's heat cycle with 90% proven accuracy. Developed with a specialised algorithm, it is designed to ensure timely breeding with high-success rates. This leads to improved productivity and better animal health. Good cattle health facilitates better quality of milk which results in an increased yield.

# Our product in this pursuit – Prompt's Animal Heat Detection System

# A COMPLETE PURVIEW ON CATTLE ACTIVITY.

The Animal Heat Detection System plays a crucial role as it enables timely detection for insemination. The timeframe from the onset of cow heat to the moment of her insemination lasts for as little as 8 to 16 hours. Precise heat detection is difficult, which is why farmers end up losing out on timely breeding. Along with ensuring timely breeding, the farmer is also notified in case of any deviation or emergency. The Animal Heat Detection System consists of the following equipment:



#### Prompt Cow Activity Monitoring Tag



The Prompt Cow Activity Monitoring Tag is a non-invasive, radio frequency operated activity tag worn by cattle. It is kept in place with the help of a robust neck belt. The activity tag not just accurately detects the onset of the cow's heat cycle but also lets farmers closely monitor their cattle. Equipped with a long battery life, the tag needs no specific sensor position to monitor the animal and can be fit onto any standard 4cm neck belt. Each tag is also equipped with a motion sensor, rumination monitor, NFC Tags, and a Unique tag ID for identifying cattle. Cow activity and rumination data is then transmitted to a receiver system with a fixed interval range of over 2km. The actual range could vary depending upon the antenna and elevation type of the terrain.

#### **Prompt Receiver Unit**



The Prompt Receiver Unit is a machine that collects various data from the activity monitoring tag and delivers it to the server for processing. It is also used for setting various parameters of the activity monitoring tag which has been uploaded from the server. It will also be used to upgrade the sensor's firmware and keep all information updated.

#### Web Portal



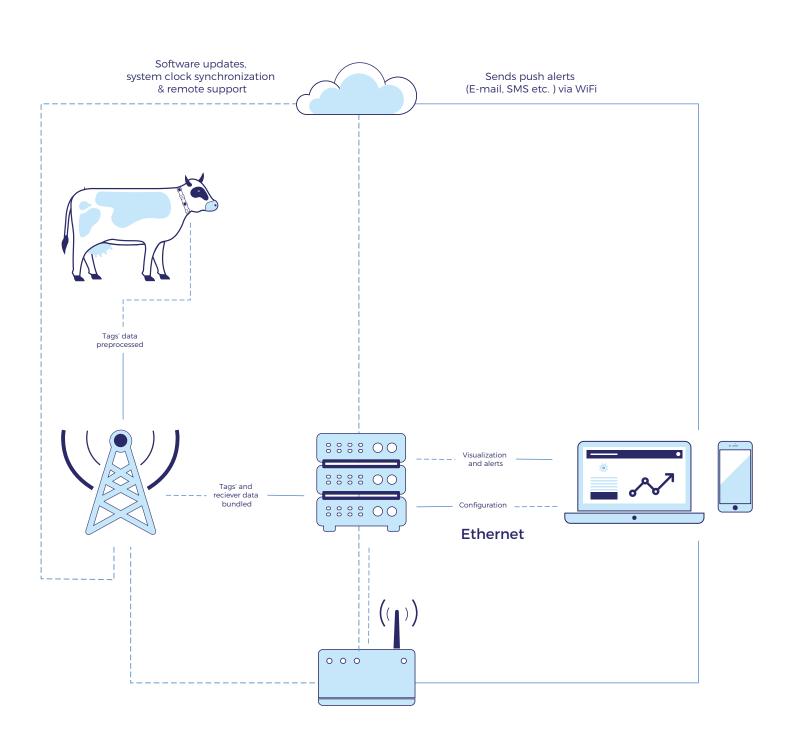
The Web Portal provides 24 X 7 real-time monitoring of the cow. It lets farmers easily manage the breeding activity taking place at the farm while keeping a log of all previous breeding activity of the cattle. The Web Portal also provides various analytical reports for breeding.

### **Individual Cow Page**



The Web Portal also consists of a special section known as the Individual Cow Page which displays the entire activity of the cow in the last month. Documenting of heat or any observation of low activity in the animal can be found on the page. Moreover, in the event of heat or low activity an alert is sent immediately to the farmers via SMS and Email. For receiving alerts via SMS, a farmer can enter multiple mobile numbers into the system.

# **Network Diagram**



---- Input ----- Output

– Output

### **KEY HIGHLIGHTS:**



Real-time monitoring and remote tracking of cattle



Actionable insight to improve Farmer's Earnings through real-time monitoring of oestrus and animal health



Records activity profile, rumination profile, body & ambient temperature, etc.



Actionable timely alerts sent to farmer through SMS or email regarding general health, digestive health, lameness, and oestrus (heat)

## **TECHNICAL SPECIFICATIONS**

Tag weight and size	80g, 105 mm × 60 mm × 22 mm
Belt Size	Standard 40 mm belt
Radio frequency band	433.05 - 434.79 MHz
Tag's peak emitted power	10 mW
Wireless data transfer rate	2.4 kbps
Wireless operating range	2-5 km
Battery life	10 years
Operating temperature	-20 to 85°C
Ingress protection rating	IP67
Number of tags supported	unlimited
Tag calibration period	1 day



## **FEATURES**:

- Economical and robust
- Easy to operate
- Low maintenance cost
- In case of lost collar or ill cow, farm staff is alerted immediately
- Activity plot preview determined by the system

- Immediate signal from activity tag for oestrus (heat) detection
- Individual collar-worn wireless activity tag for cows
- Software for cow-related data processing and in-browser visualisation

# WHAT ARE ITS BENEFITS?

- Increases breeder's efficiency and saves time.
- Improves farm management.
- Saves cost on labour, semen, medical treatment.
- 24 Hour calibration of the tag enables it to be used on multiple cows.
- Farmers can view and edit data of their farms anytime, anywhere.

# **Upcoming Farm 365**

Synchronisation of the Animal Heat Detection System made possible with the Farm365 Mobile App (Android) for Farm Management

## **UPCOMING FARM 365**

- Daily milk recording
- Keeps health records
- Keeps track of vaccinations & deworming
- Provides an animal card for whole life cycle management
- Provides an advanced farm performance report
- It is available on subscription.

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Our ideas and innovations are a part of the pursuit of maintaining the sanctity of milk so that the world's most ancient health drink can be appreciated as it truly is - untouched and unadulterated.



22 states

team members

650+



presence across 221+ Districts

legacy of more than

2 decades



presence across 50,000+ villages



2 patented products

# **Optimise your farm** with related products

#### **Milking Machine**

Milking Machine is designed to milk cattle quickly, efficiently, hygienically, and ensuring maximum comfort to the animal.

#### Farm 365 Animal Husbandry App

This technologically advanced app is a complete solution to your cattle management needs, which helps improve cattle breeding and feeding - resulting in increased milk yield and profitability.

#### Milk Analyzer

The Indiz Ultrasonic Milk Analyzer provides accurate milk parameters reading such as Fat, SNF, Added Water and Density and links it with the pay-out to the farmer in real-time. This increases transparency and profitability arising out of improvement in quality of milk collected.







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