



Prediction with Precision

Secure your Assets with World's first 6 in one Wireless Sensor



Meet the Hardware that Scales

Secure your Assets with World's first 6 in one Wireless Sensor



World's first 6-in-1 sensor

Measures Vibrations, Acoustic Emissions, Surface Temperature, Humidity, Instantaneous RPM & Magnetic Flux.



Better & Faster Connectivity

Internet connectivity through multiple communication protocols to suit wide variety of applications.



Ease of Installation

Sensor is installed and connected to internet within 5 minutes.



Ease of use

Alerts & Notifications Remaining Useful Life Prediction & real time machine health Summary.



Easier Scalability

The hardware is easily scalable to connect all machines across plants and gives an overview of all machine health.

PLUG PLAY PEACE



Machine Doctor measures 6 parameters in one i.e Vibration 3D, Acoustic Emission, Surface Temp, Humidity, True RPM & Magnetic Flux. It allows for a simple plug & play, hassle-free deployment, without worrying about any extra IT infrastructure.

Machine Doctor is available in 4 variants:

1. Machine Doctor-WiFi uses Wi-Fi routers to take data to the cloud for analysis.
2. Machine Doctor-LTE offers the flexibility to connect to the internet via built-in E-Sim
3. Machine Doctor-LoRa+LTE works on Low-Power Long Range LoRa Technology
4. Machine Doctor-Infinity harvests energy from the machine's vibration & self charges automatically providing infinite battery life.



Vibration 3D



Acoustic Emission



Magnetic Flux



Humidity



True RPM



Temperature



Automated End-to-end Solution

Nanoprecise solutions strive to create 360 degree integrated systems that can predict the remaining useful life of any asset & empower users with right data across any industry. We implement cutting edge technology to bring accurate prognostic and diagnostic solutions that can predict the remaining useful life of any asset with up to 99% accuracy.



Connectivity

Various connectivity Options
ESim / Cellular / Wifi 2.4/5ghz
/ NbloT / 4G / LTE



Power

Battery Powered sensor with
19000maH battery option.
Simple plug play and forget



Edge Processing

Edge Processing- Smart
Sensors processing data at
edge, notifying about
abnormalities in advance



Real-time Alerts & Reports

NanoAI alarms sent via sms
and emails along with
prescriptive analytics to take
actions



Cybersecurity

Cybersecurity- AES 256 - UL
2900-2-2 Advance Cyber
security equivalent to Bank
Grade Encryption



User-friendly Dashboard

Empowering User with right
data at right time.
Dashboard available on
web & Android / IOS



MachineDoctor™



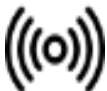


RotationLF™

Enhance the Life of your Machines

Our automated AI based predictive maintenance solutions facilitate early detection of even small changes in machine operations well before they impact production or cause downtime.

Our IoT driven Predictive maintenance solution helps to reduce downtime, monitor, collect, exchange and analyze data from machines to enhance manufacturing processes.

Multiple Connectivity & Power Options

Sensor	Connectivity	Battery Life*
		
Machine Doctor – Wi-Fi	Communication Protocol: 802.11 b/g/n/e/i	2-5 years
Machine Doctor - LTE	LTE/ CAT M1/ Wi-Fi/ Bluetooth 5.0	3-8 Years
Machine Doctor – LoRa + LTE	LTE/CAT M1/4G/2G/ NBloT	5-8 Years
Machine Doctor – Infinity	LTE/ CAT M1/ Wi-Fi/ Bluetooth 5.0	>15 years

Round-the-Clock Monitoring



**Advanced
Anomaly
Detection**



**Real Time
Monitoring
without
Full Time
Connectivity**



Storage



**Advanced
customised
sampling
strategies**

* Battery life may vary based on numerous factors, for a specific details please contact us

Machine Health Diagnostics

MachineDoctor is easy to configure, enables smoother movement, and synchronizes with our IOS and Android applications. It feeds directly into our Analysis Software RotationLF.



Insights



Diagnosis



Action

Anomaly Detection → Fault Diagnosis → Time to Fault Prediction → Action

Benefits



Reduced
Unplanned
Downtime



Maximizes Asset Life



Optimizes Maintenance
Budgets and Resources



Offers Insights and not
mere Alerts



Reduced hazardous
area exposure for your
team with automated
data collection.



Dedicated DIY App for
self configuration
without having
dependency on the OEM

Applications



Motor

Pump

Gearbox

Compressor

Engines

Fans

Ball Mills

Centrifuges

Mobile Equip.

and More!

Industries that we Serve

Steel/Metal

Mining

Chemical

Infrastructure & Facilities

Pharmaceutical

Oil & Gas

**Forest,
Paper & Pulp**

Cement

Specifications

Parameters	Machine Doctor WiFi	Machine Doctor LTE	Machine Doctor Lora+LTE	Machine Doctor Infinity
Power Source	1500 mAH 3.0 V Battery	19,000 mAH 3.6 V Battery	19,000 mAH 3.6 V Battery	Vibration based energy harvesting; Operating Frequency - 30Hz, 60Hz, 85Hz, 110Hz, and 120 Hz
Connectivity Protocol	Wi-Fi: 2.4 Ghz	Cellular: CAT-M1 , LTE-M: 12, 2G (GSM1800/900), W,i-Fi: 2.4 Ghz & 5 GHz, Bluetooth: 5.0	Cellular: CAT-M1 , LTE-M: 12, 2G (GSM1800/900), W,i-Fi: 2.4 Ghz & 5 GHz, Bluetooth: 5.0	Cellular: CAT-M1 , LTE-M: 12, 2G (GSM1800/900), Wi-Fi: 2.4 GHz & 5 GHz
Dimensions	7.8 cm (3 inch) Length and 5.2 cm (2 inch) Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter
Onboard storage capacity	4MB (avg 500kB/day, 4x VIB TWF/day) Up to 3 days			
Accelerometer	MEMS based sensor			
Operating Temperature Range	Non-Hazardous Area Ambient operating Temp: -40 to 125°C Hazardous Area Ambient operating Temp: -40 to 55°C			
Enterprise-grade Security	AES256 Encryption; Completely encrypted data pipeline			
Measurement Range	Vibration sensor: <ul style="list-style-type: none"> • Range: $\pm 40g$ • Sensitivity: 0.031 mg/LSB Acoustic Emission sensor <ul style="list-style-type: none"> • Ultrasonic Range: 50Hz to 80kHz • Sensitivity: 26dB FS +/-1 dB RPM <ul style="list-style-type: none"> • Accuracy: 99% (10-5000RPM) Temperature <ul style="list-style-type: none"> • IR Resolution: 0.1°C / 0.18°F • Range: -40°C to 120°C / -40°F to 250°F Magnetic Flux <ul style="list-style-type: none"> • Range: Adjustable +/-2 Gauss to +/-200 Gauss • Sensitivity: 0.0002 Gauss to 0.02 Gauss • Sampling Rate: 113 kHz Humidity <ul style="list-style-type: none"> • Range (Relative Humidity): $\pm 3.5\%$ RH, 20 to +80% RH • Accuracy (LSB): 0.004% RH/LSB 			
Consumption	Ultra-low-power mode consumption down to 8 μ A (Wifi) or 16 μ A (Cellular)			
Testing	Vibration & natural Frequency testing passed (5000g)			
Noise Reduction	Unique skeleton holder ensures zero noise			
Certifications	FCC/ISED/CE/UKCA - LoRA+LTE Sensor FCC/IC - Wi-Fi, LTE & Infinity Sensors IECEX Class 1 Div 1 & ATEX Zone 0* - Wi-Fi Sensor IECEX Class 1 Div 2 & ATEX Zone 1* - Lora+LTE, Infinity, LTE Sensors IP68, ASME Class 1 Div 2, UL746C and UL94V0			

Certifications:



FCC 15B



Industry Canada certified



UL95V0 Flammability Rating



Canada Certified



NEMA250



ASME Class 1 Div. 2, or "Intrinsically Safe"



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*In progress

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