MONITOR PRO

NETMAX™
TECHNOLOGIES PVT. LTD.

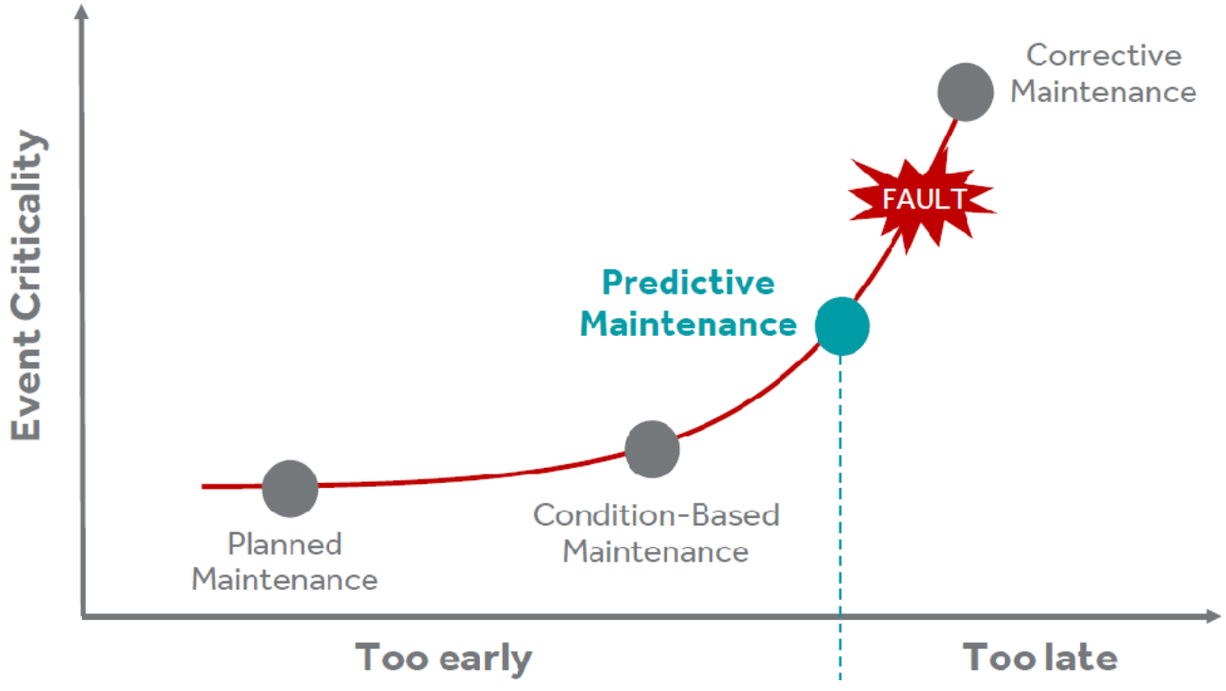
- We have developed various products for IIOT at Netmax. These products helps in Digitisation and Predictive Maintenance of Plants

Digitisation of Legacy Machines

- Monitoring Health of machine with existing and new sensors
- Predicting tool life and maintenance schedule of machines.
- Check production monitoring in the machine
- Check energy consumption of machines

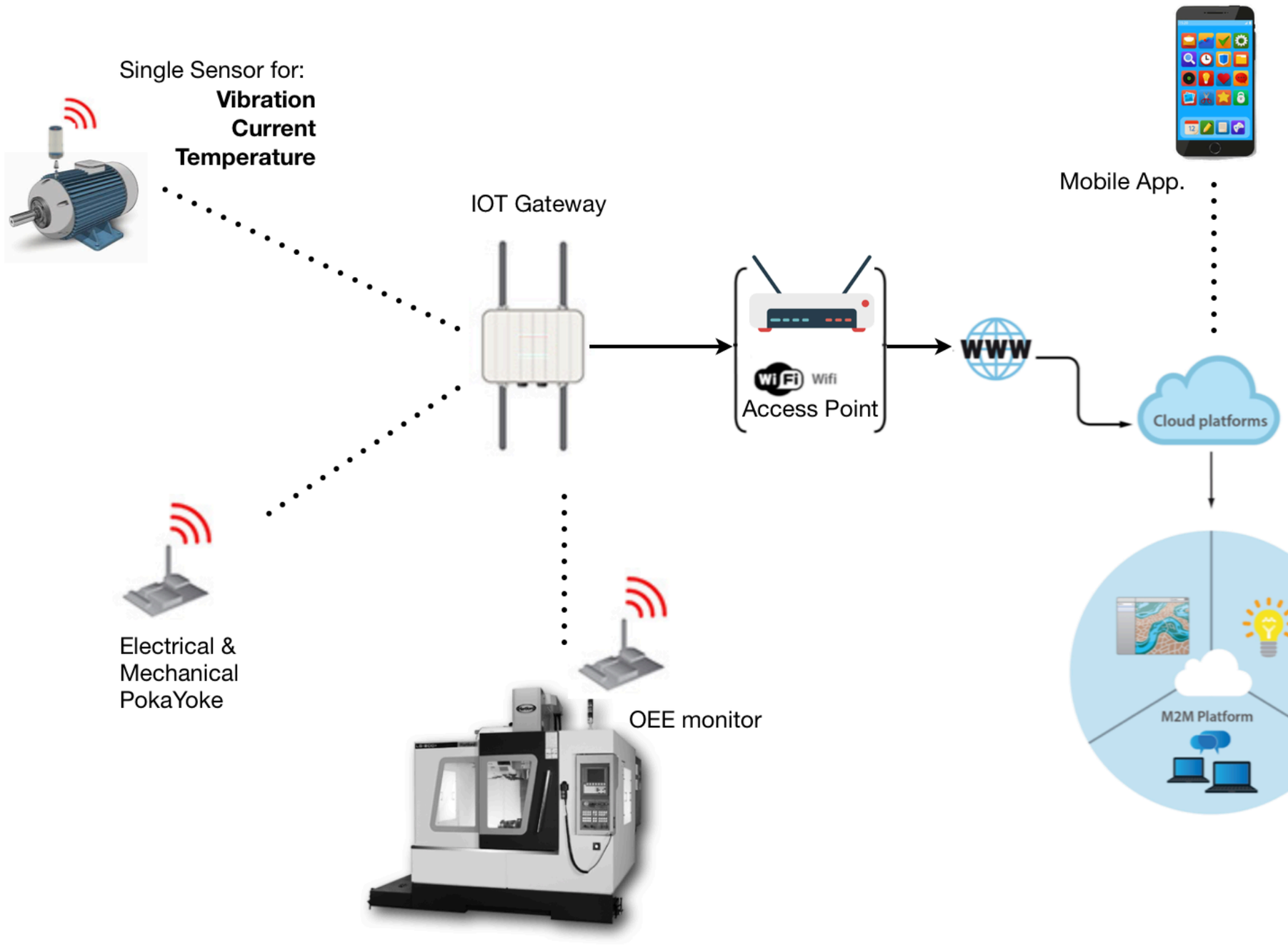
Predictive Maintenance

- Less Breakdowns
- Increased Machine Uptime
- Avoid costly repairs
- Real Time Alerts



Topology & Architecture

Topology



The Hardware

CBM Sensor

A wifi enabled sensor which is capable of taking 3 parameters
- Temperature, Current and Vibration

Energy Monitoring Module

Convert existing RS485 based energy meter to Wireless Energy monitor

- RS485 to Wireless
- Monitor All Parameters
- Plot Graphs
- Data storage in LOCAL/ONLINE

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Keypad UIO unit

Multi-functional device which can be used for Part Production Monitoring, JH activity, Report Breakdowns etc

- **Monitor Part Count**
- **Perform JH Activity**
- **Lubrication Low Status**
- **Energy Monitoring**
- **Set Machine Status -** Breakdown/Operator Waiting, Job Waiting, Tool Waiting etc.
- **Report Part Specification**

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Touch UIO unit

Multi-functional device which can be used for Part Production Monitoring, JH activity, Report Breakdowns etc

- **Monitor Part Count**
- **Perform JH Activity**
- **Lubrication Low Status**
- **Energy Monitoring**
- **Set Machine Status -** Breakdown/Operator Waiting, Job Waiting, Tool Waiting etc.
- **Report Part Specification**

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Smart Switch

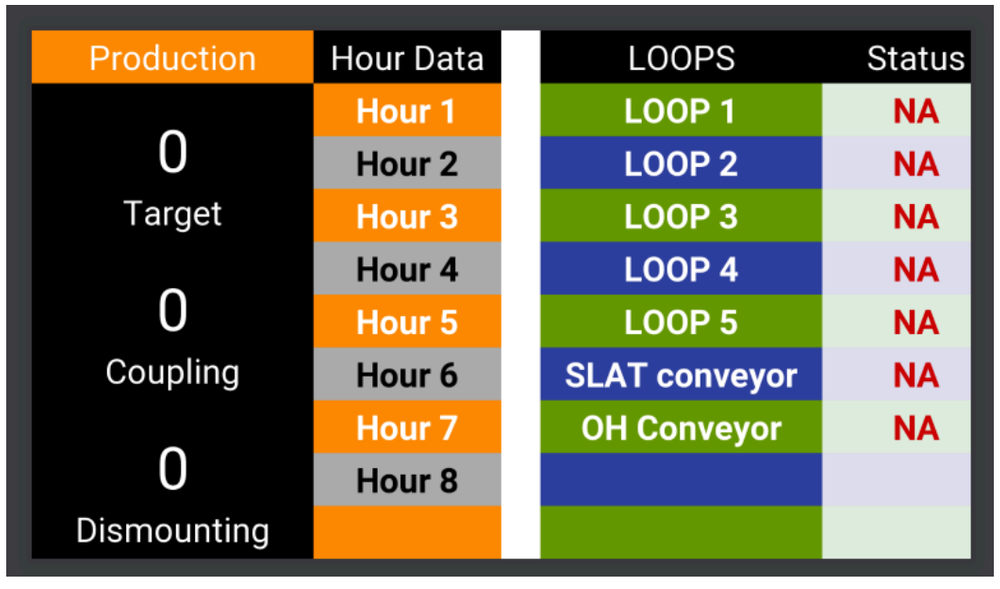
Replace Standard Switches with IOT buttons that can record button press its time and generate analytics for future use.

- Log Time When Line is Stopped
- Register Line Stoppage Reasons
- Plot Graphs and Reports

LED Display Unit

- Connected to TV Unit with HDMI
- Low Energy Consumption
- Display Parameters as Required

Hourly Monitoring



Hourly Monitoring with Loop Status

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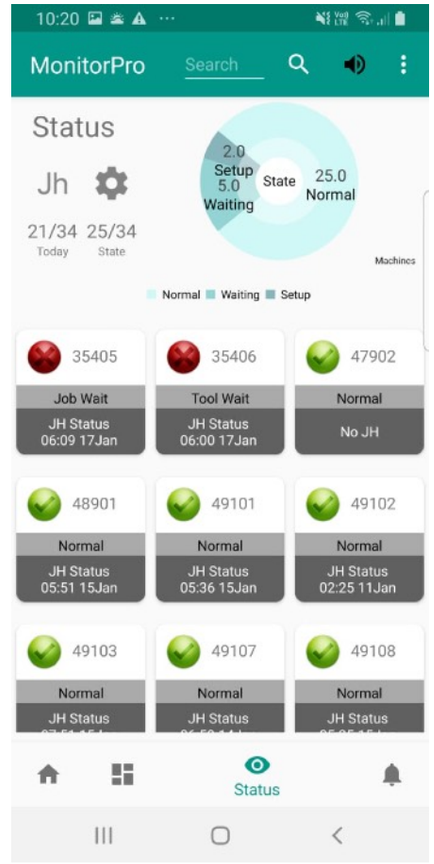
Example Applications

Machine Digitisation

Monitoring Production
Monitoring Lubrication
Fault Relay Status online
Emergency Switch Status
Energy Monitoring
Jh activity
Machine Status
Tool Life Monitoring



Hardware: Any UIO Unit

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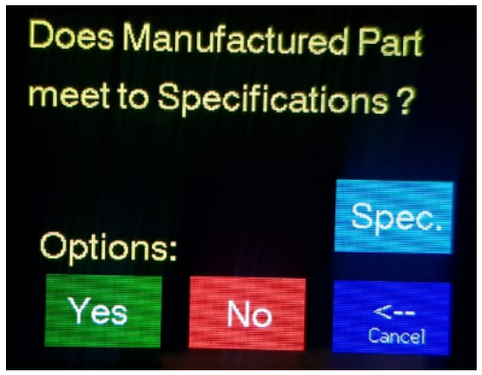
Machine Digitisation

JH activity

		295.01	166.01/166.02	535.02
S.No.	Item/ JH POINT			
1	Have you checked Lub. Oil Level	√	√	
2	have you checked Lub. Oil Pressure and gauage condition	√	√	
3	Have you checked Coolant Level	√	√	√
4	Have you Clean M/C body from outside	√	√	√
5	Have you Clean chip Tray	√		
6	Have you checked Fixture Condition	√	√	√
7	Are the Gauges Calibrated	√	√	√
8	Have you checked Hyd. Oil Level		√	√
9	have you checked Hyd. Oil Pressure and gauage condition		√	√
10	Have Oil Level in Lub. Cup in FRL		√	
11	Have you checked Coolant Pressure		√	
12	Is the A/C Functioning		√	
13	Have you checked A/C Temperature		√	
14	Is the Gear Train Functioning properly			
15	Have you checked Cutting Oil Level			
16	Have you checked Cutting Oil pressure			
17	Have you checked air pressure			
18	Is Main Spindle Motor working			
19	Is Cutter Angle Head Motor working			
20	Clean AC filter			
21	Have you checked Check tail stock clamping pressure			
22	Have you checked Check balancing cylinder Pressure			



Part Spec Update

Hardware: Any UIO Unit

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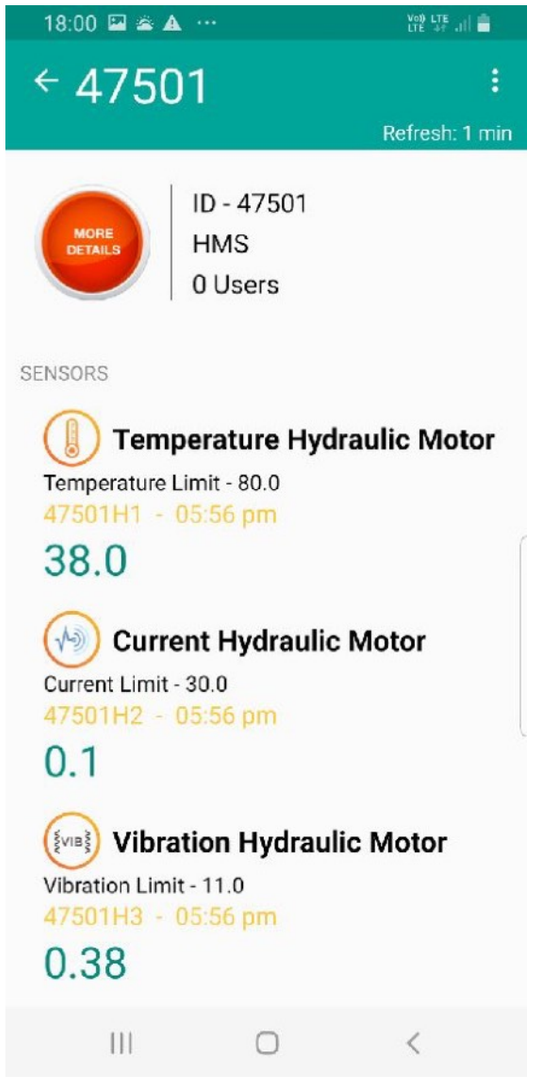
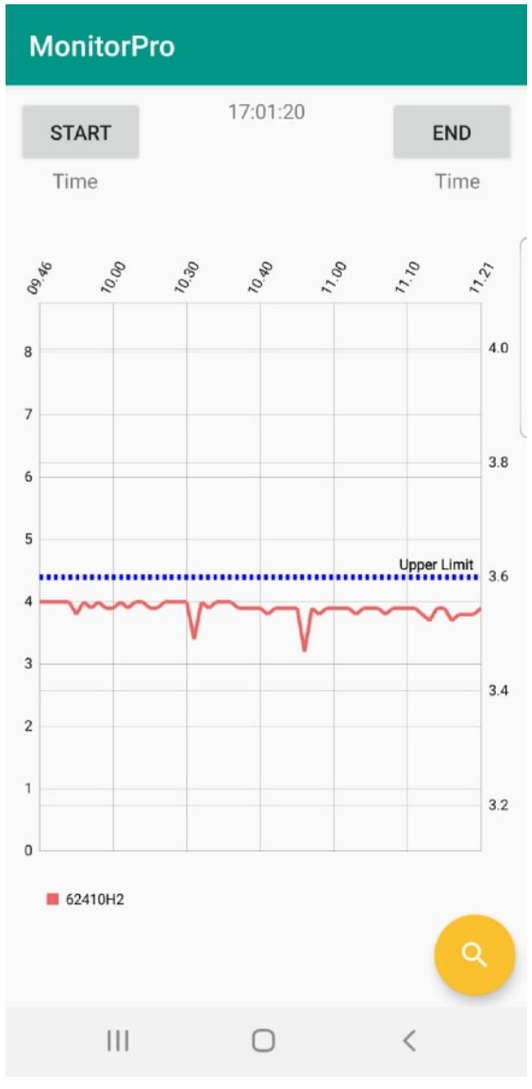
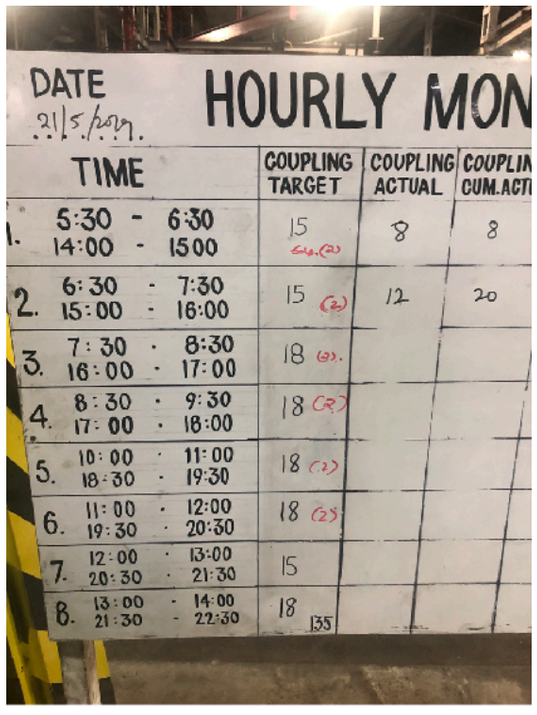
CBM Sensor


18:00
47501
Refresh: 1 min
MORE DETAILS
ID - 47501
HMS
0 Users
SENSORS
Temperature Hydraulic Motor
Temperature Limit - 80.0
47501H1 - 05:56 pm
38.0
Current Hydraulic Motor
Current Limit - 30.0
47501H2 - 05:56 pm
0.1
Vibration Hydraulic Motor
Vibration Limit - 11.0
47501H3 - 05:56 pm
0.38


MonitorPro
START
17:01:20
END
Time
Time
09:46
10:00
10:30
10:40
11:00
11:10
11:21
Upper Limit
62410H2

Digitisation of Hourly Monitoring Table

Coupling and Dismounting Counters



Hardware: TV display Unit

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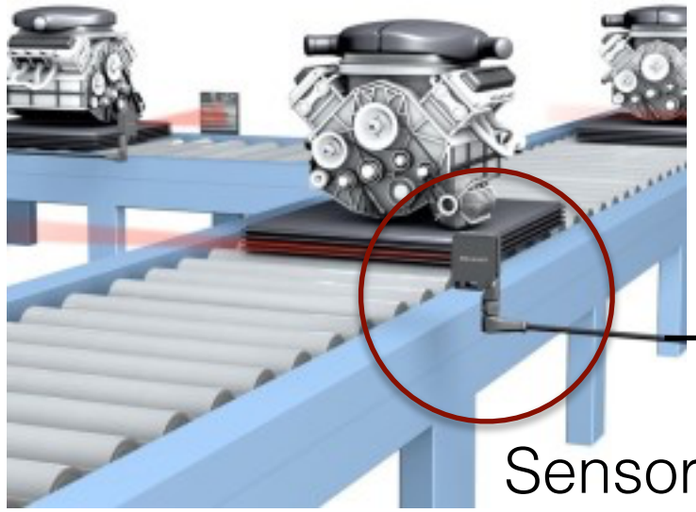
Production Monitor

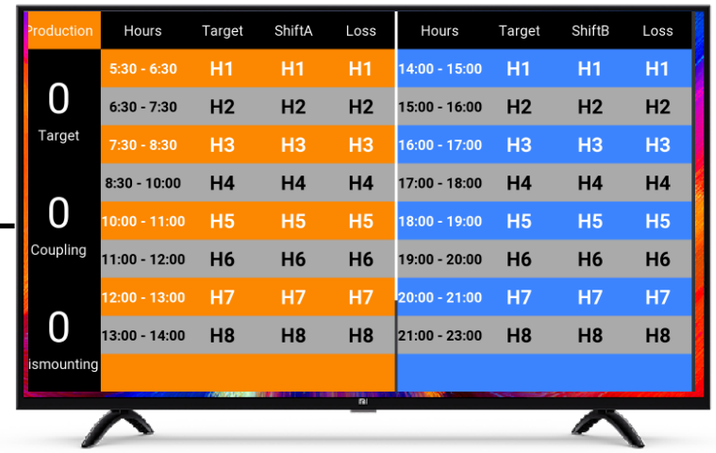
Coupling and Dismounting Counters



Sensor

Counter

Display



Database

Hardware: TV display Unit & UIO Unit

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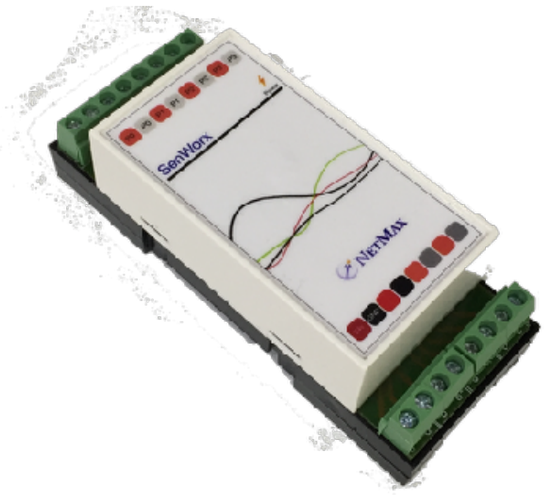
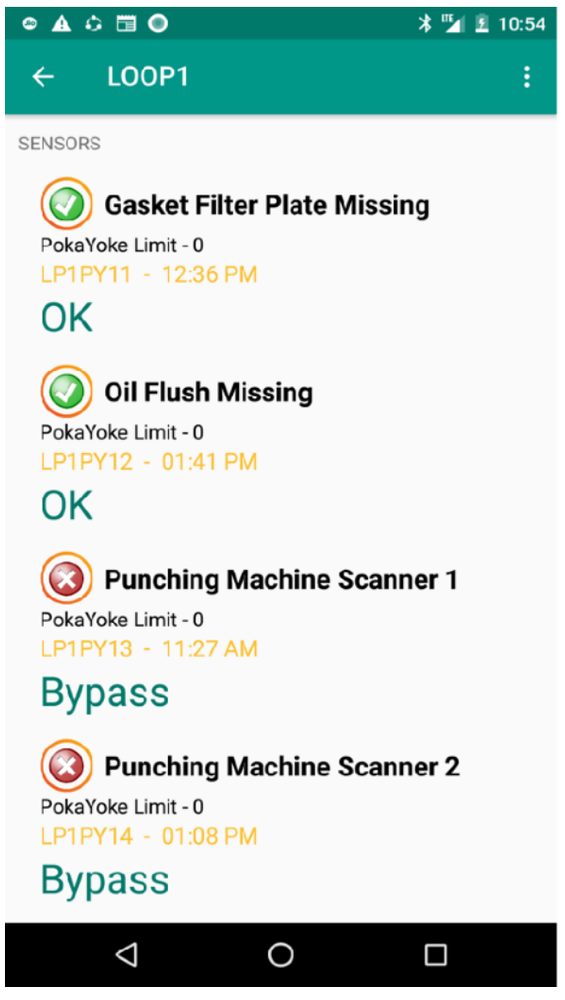
PokaYoke Monitor

Monitoring Pokayoke Status online



Status

Poka Yoke Alert



Hardware: UIO Unit without display

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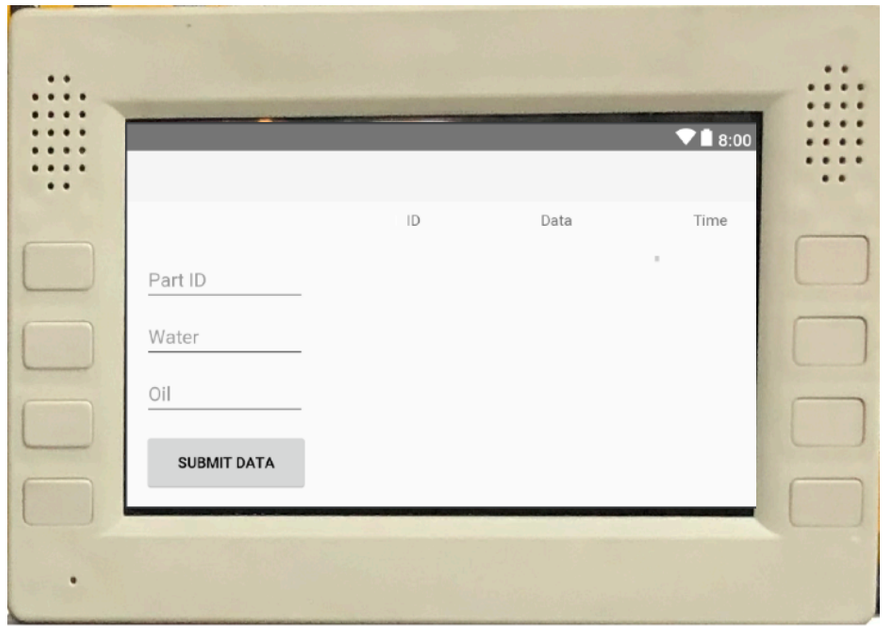
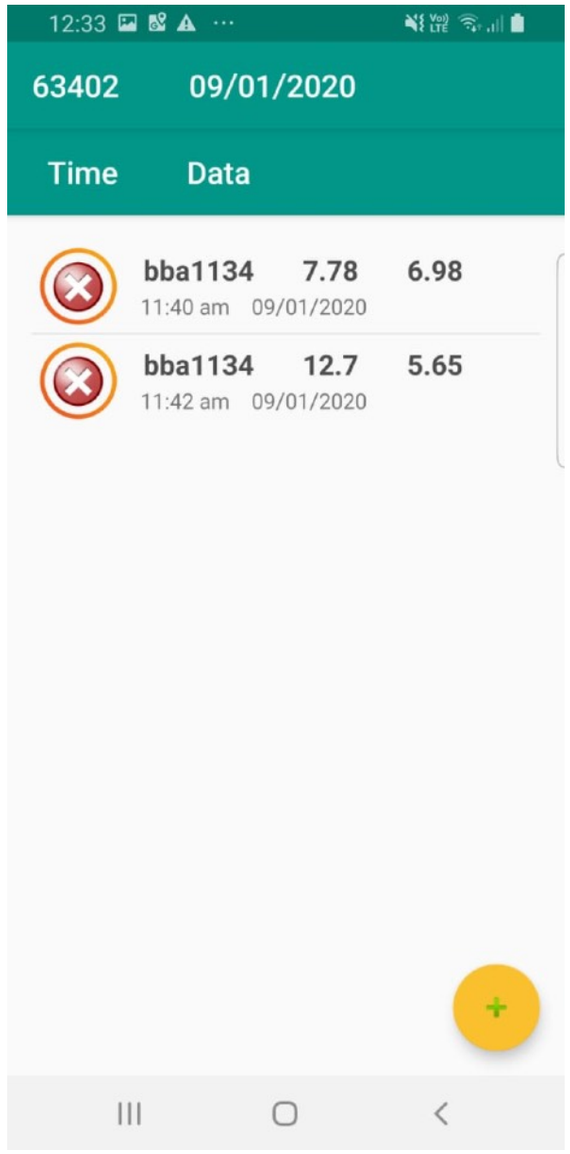
Digitisation of Leak Test Data



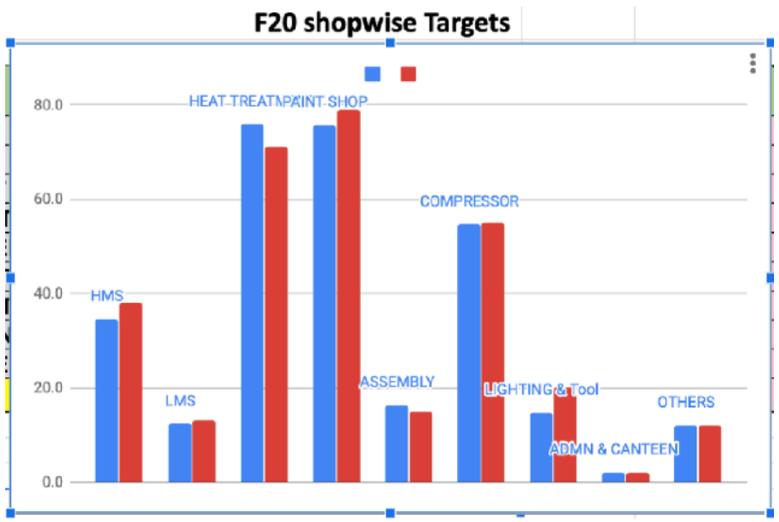


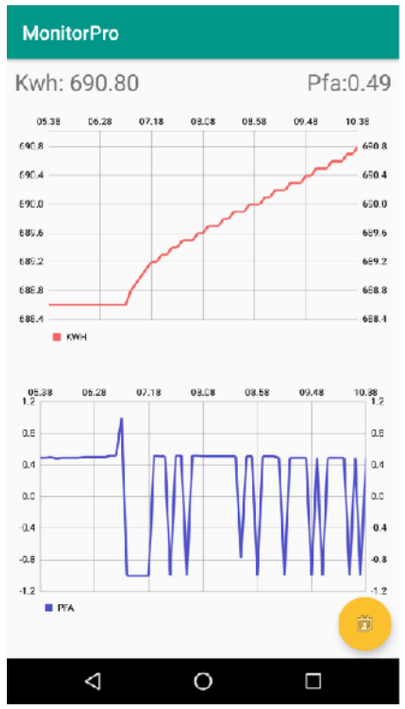
Hardware: Touch based UIO Unit

Plant wise Energy Monitoring

Data Analysis and platform for complete plant

- Automate readings from all Meters
- Display Department wise energy utilisation
- Plot graphs for ShopWise target vs actuals consumption





Hardware: Energy IO unit

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Assembly Line Monitoring

Replace Standard Switches with IOT buttons that can record button press its time and generate analytics for future use.

Monitor detailed data in online Portal

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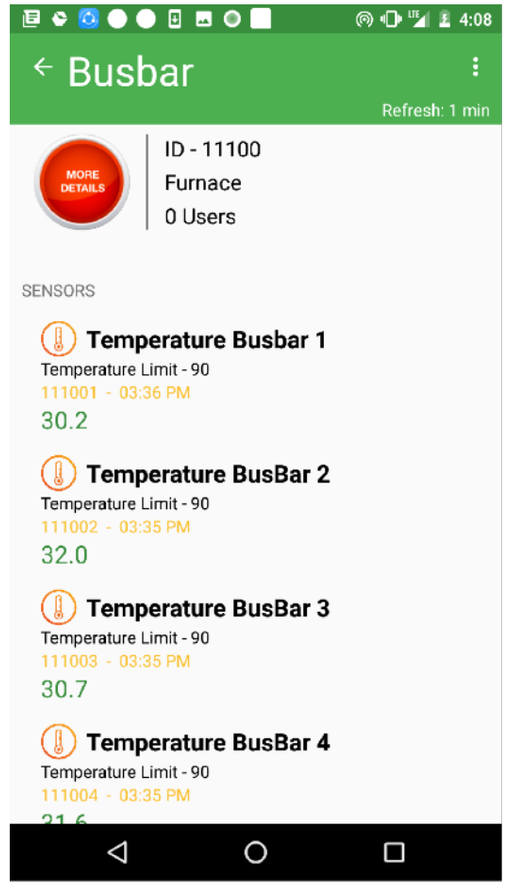
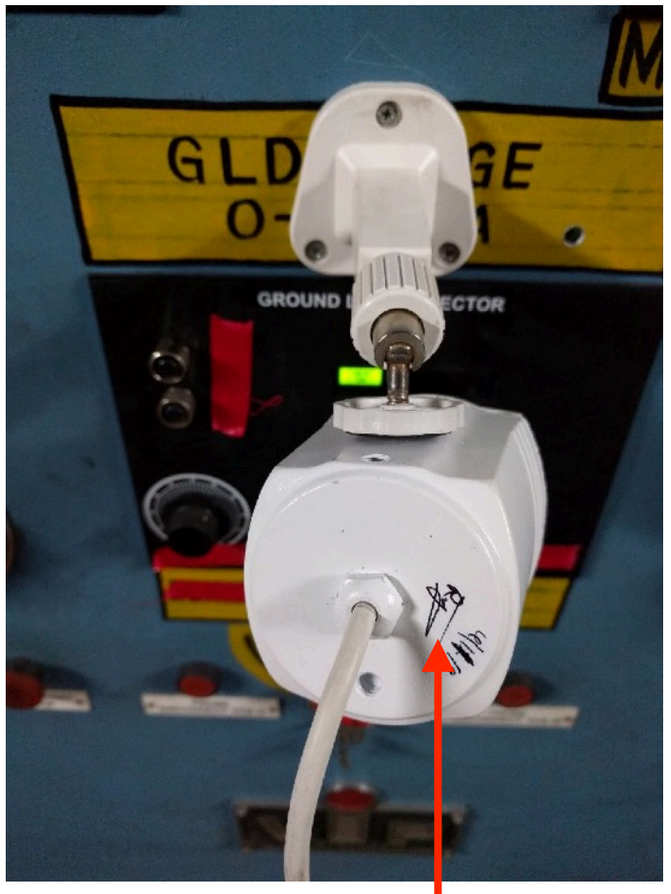
Monitoring Temperature of very high power BusBars without making contact

Non Contact Temperature Sensor



Ground Leakage Detection) GLD value With Camera

Get GLD value online
without any interference



Camera taking image
then convert to text

Thanks

Jagdeep Singh

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9872938883

or

jagdeep@netmaxtech.com