



# FLEET MANAGEMENT



# Sense of Wheels

Sense of Wheels is a provider of Asset as well as remote asset tracking and tracing systems. We offer a wide range of complete solutions which include Fleet Management, Anti Theft Fuel System, Fuel Pump Automation System, Automatic Tank Measurement which can be readily deployed in varied industries ranging from Manufacturing, Construction, Heavy Earth Moving Machinery, Logistics, School Transportation, Mining Industries. Our focus is on solving our customers pain points and understanding their needs and providing a customized solution.

## Use Cases



Logistics



Manufacturing industries



Fire Department & Emergency Services



Ambulance



RMC



Raw Materials for Cement Industry



Corporation Waste Collection Vehicle



Refrigerator Van / Milk Van



Container Tracking



School Bus



Gas / Petrol / Oil

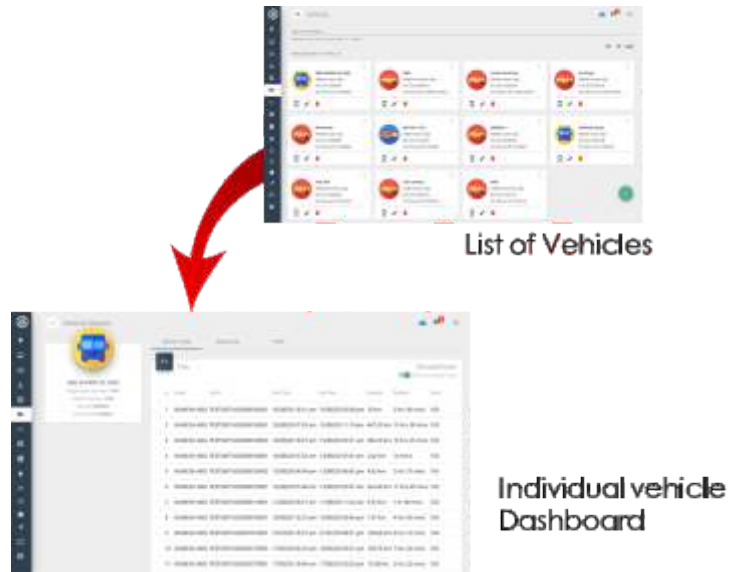


HEMM & Mining

# Features

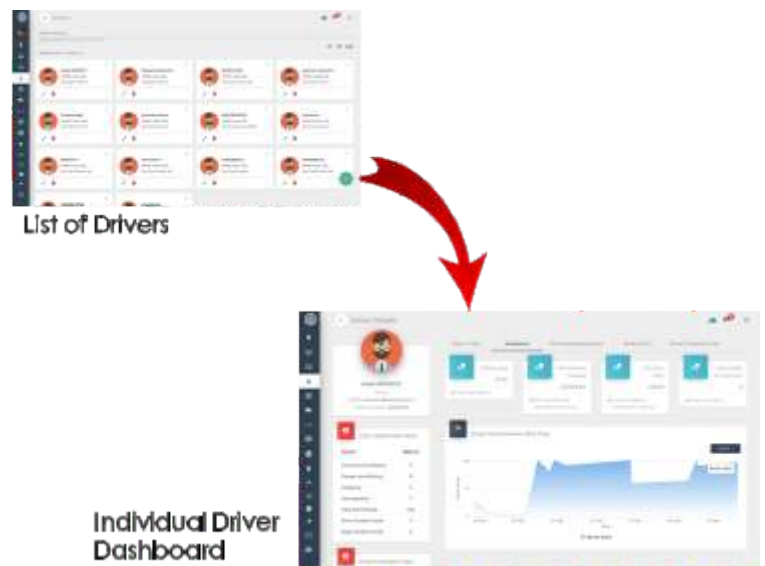
## Vehicle Management

- Manage Vehicle Attributes
- Manage Documents
- Access Vehicle Location
- Vehicle Statistics & Trends
- Maintenance Management
- Vehicle Master
- Historic Route Playback
- Vehicle Categorization



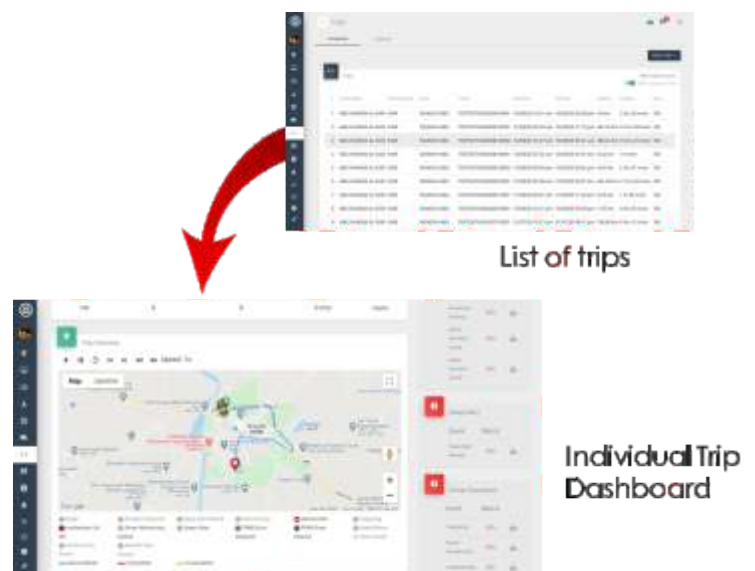
## Driver Management

- Driver ID & Profile
- Manage Driver Documents
- Trips Recording
- Driver Behavior Statistics
- Driver Performance
- Driver License Expiration Reminder



## Trip Management

- Access Completed & Ongoing Trips
- Trip Playback on Maps
- Time Allotment
- Trip Expense
- Event Recording
  - Over Speeding
  - Breakdown
- Trip Status
  - Distance
  - Start & Stop
  - Average Speed



# Features

## Geo Fencing

- Polygon Marking
- Route Planning
- Route Optimization

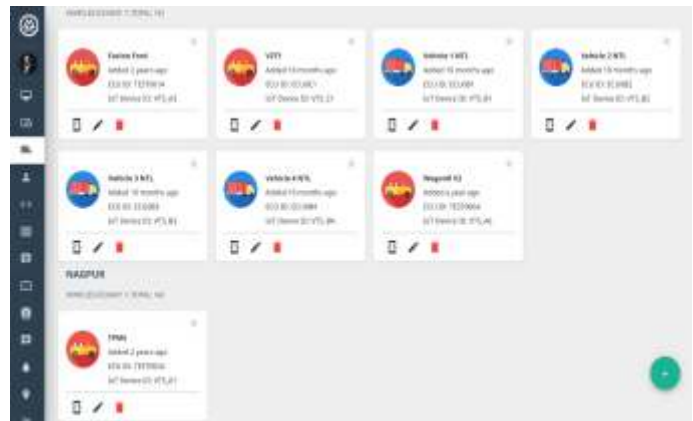


## Fleet Maintenance

- Service Timeline
- Service Reminder
- Tyre Run out Reminder
- Engine Oil & Filter Change Reminder
- Percentage Wise Compliance

## Garage Management

- Stock Management
- Low Stock Level Warning
- Stock Transfer Between Branches
- Supplier Management
- Breakdown Report
- Job Card Management



## Anti-Theft Fuel System (ATFS)

- Live Fuel Monitoring
- Daily Trip Reports
- Fuel Theft Warning via Mobile App
- Reports of Fuel Usage between Any Selected Dates
- Instant Report of All Used Fuel by Operator, Machine and Mine Branch



## Automatic Tank Measurement

- Live Track the Fuel Pump Tank level
- Track the Fuel Dispensed in the tank by the supplier
- Supplier Management
- Low Fuel Level in the tank warning
- Compare the fuel dispensed from the tank with Fuel Pump via FPAS in your fleet

## Fuel Pump Automation System (FPAS)

- Dispensing Fuel
- Track the fuel dispensed on the fleet
- Authorized Dispensing

# Technical Specification

		
ARM9EJS @ 260MHz 4MB (ROM) / 4MB (RAM)	ARM9EJS @ 260MHz 4MB (ROM) / 4MB (RAM)	ARM9EJS @ 260MHz 4MB (ROM) / 4MB (RAM)
GSM Module	Quad Band GPRS Multi-Slot Class GPRS Mobile Station Output Power	850/900/1800/1900 MHz Class 12 (85.6 KBPS) Class B 2W @ 850/900 MHz 1W @ 1800/1900 MHz
GNSS Module	GPS L1 Band Receiver  GLONASS L1 Band Receiver Position Accuracy Velocity Accuracy Acceleration Accuracy TTIF  Sensitivity	1575.42 MHz Tracking : 33 (Channels) Acquisition : 99 (Channels) 1601.71 MHz <2.5m <0.1 m/s <0.1 m/s Cold Start : <35s Warm Start : <30s Hot Start : <1s Acquisition : -149 dBm Tracking : -167 dBm Built-in GSM and GPS
Antenna	Built-in GSM and GPS	Built-in GSM and GPS
Communication Interface		
Record Storage/buffer	50,000 Data Packets(64Mb)	50,000 Data Packets(64Mb)
Interface	Analog Fuel Sensor Interface with sudden drop corrections	Analog Fuel Sensor Interface with sudden drop corrections
Speed Sensor		
SIM Interface		
GPRS Packet Data	TCP	TCP
LED Indication	GPS (RED), Network GSM/Data Transfer (Blue)	GPS (RED), Network GSM/Data Transfer (Blue)
Connectors	Open wire	Open wire
Power Supply	8 – 100V DC with resettable Fuse	8 – 100V DC with resettable Fuse
Current Consumption	@12V 60mA in Standby, 98mA while Sending Data	@12V 60mA in Standby, 98mA while Sending Data
Internal Battery	250 mAh/3.7V Li-Po	250 mAh/3.7V Li-Po
Enclosure	IP54	IP54
Temperature	Operating : -20°C ~ 65°C	Operating : -20°C ~ 65°C
Dimension	85(L)*47(W)*17.5(H)	85(L)*47(W)*17.5(H)
Weight	92g	92g
Firmware over air upgrade	Yes	Yes
Bluetooth	3.0 (EDR)	3.0 (EDR)
Motion Sensor	GPS Based	GPS Based
Additional Feature	3.0 (EDR)	3.0 (EDR)
Engine Immobiliser	yes	yes
Inputs/Outputs	2 In / 1 Out	2 In / 1 Out

# Technical Specification



## ULTRASONIC SENSOR TECHNICAL PROPERTIES

ITEM	SPECIFICATIONS
MEASURING RANGE	1000mm
MATERIAL	Diesel & Petrol
RESOLUTION	0.5mm
LOWEST LIQUID LEVEL DETECTION	40-50 mm
MAX. TANK THICKNESS	6 mm
MAX. LENGTH OF SENSORS CABLE	15 meters
POWER SUPPLY	12V-24V
IP RATING	Ip67
MAX POWER CONSUMPTION	<1W/12V DC
WORKING TEMPERATURE	-40°C - +65°C
LIQUID MEASUREMENT ACCURACY	±1% Under standard condition
COMMUNICATION INTERFACE	Rs232



## TELEMATICS BOX TECHNICAL PROPERTIES

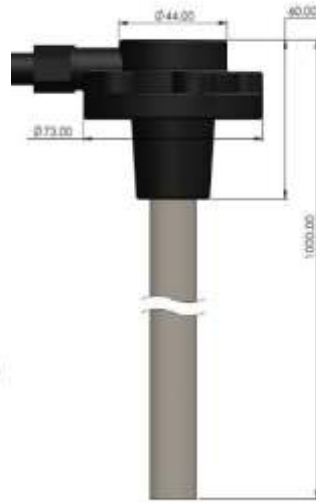
ITEM	SPECIFICATIONS
DIMENSIONS	210 x 80 x 55 mm
INPUT VOLTAGE	10 - 36V DC
WEIGHT	450g
STANDBY BATTERY	3.7V/500mah
OPERATING TEMPERATURE	-20 °C to 65 °C
WORKING HOURS	4 TO 6 hr Standby
SUPPORTS	GPS, GPRS (2G) & BLUETOOTH
ADDITIONAL I/O	2 I/P, 1 O/P



## PROBE SENSOR TECHNICAL PROPERTIES

ITEM	SPECIFICATIONS
MEASURING RANGE	1000mm
MATERIAL	Diesel & Petrol
RESOLUTION	1.5mm
LOWEST LIQUID LEVEL DETECTION	10-20mm
MAX. LENGTH OF SENSORS CABLE	15 meters
POWER SUPPLY	10V~70V
IP RATING	Ip67
MAX POWER CONSUMPTION	<1W/12V DC
WORKING TEMPERATURE	-40°C - +75°C
LIQUID MEASUREMENT ACCURACY	±4% Under standard condition
COMMUNICATION INTERFACE	Rs485 Analog

# Automatic Tank Measurement



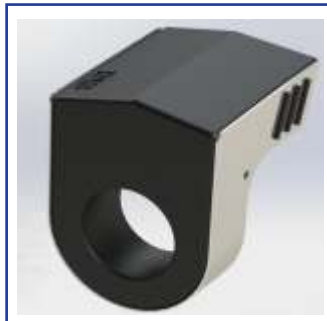
## Technical Specification:

- Voltage Range : 10 TO 70 VDC
- Current Range : 30mA
- Operating Temperature Range : -40°C TO +75°C
- Supports : Analog
- Enclosure Protection : Ip67
- Measurable material : Diesel & Petrol
- Resolution : 1.5mm
- Lowest Liquid Level Detection : 10-20MM
- Max. Length Of Sensor Cable : 7.5 M
- Max Power Consumption : <1W/12VDC
- Weight: 2.0 Kg
- Length: 2500 mm

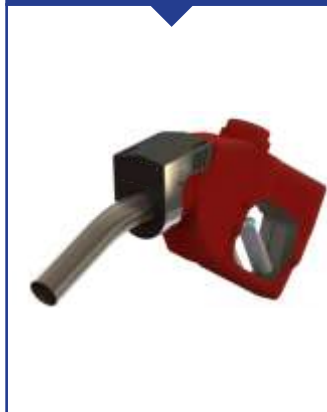
# Fuel Pump Automation System



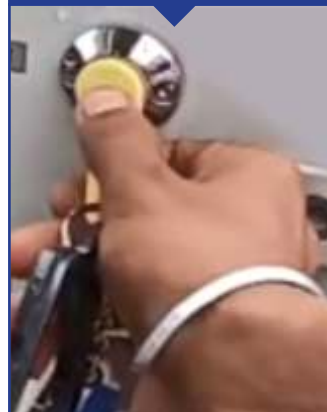
**CONTROLLER**



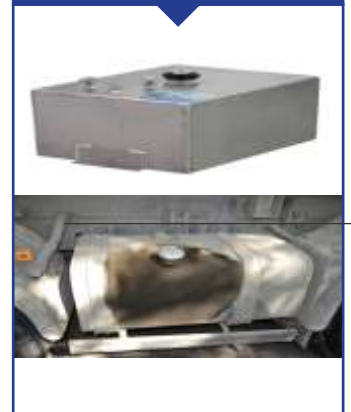
**RFID READER-WIRELESS**



**i-Button Tag**



**Ring Tag**





Ghana Partner:



**TSL**  
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