















**ARE YOU BREATHING HEALTHY AIR?  
KNOW AIR POLLUTION DATA NEAR TO YOU.**

**12 PARAMETER OF AIR POLLUTION IN SINGLE DEVICE**

- |   |   |  |  |   |   |
|---|---|--|--|---|---|
| <br>TEMPERATURE | <br>AIR PRESSURE     | <br>NOISE           | <br>METHENE | <br>HUMIDITY | <br>CARBON DIOXIDE |
| <br>AMMONIA     | <br>NITROGEN DIOXIDE | <br>CARBON MONOXIDE | <br>PM1.0   | <br>PM2.5    | <br>PM10           |



It's time to show air quality

**20,000 liters**

We breathe about 20,000 liters of air every day(EPA-Environmental protection Agency )

*\*EPA-Environmental protection Agency*

**5,27,000 Deaths**

Air quality is the single biggest environmental hazard in the world

*\*WHO*

**6 Million**

It is estimated that, by 2050 6 million people will die every year due to air pollution.

*\*Time Magazine*

**\$5T**

Air pollution costs the global economy \$5T a year

*\*World bank*

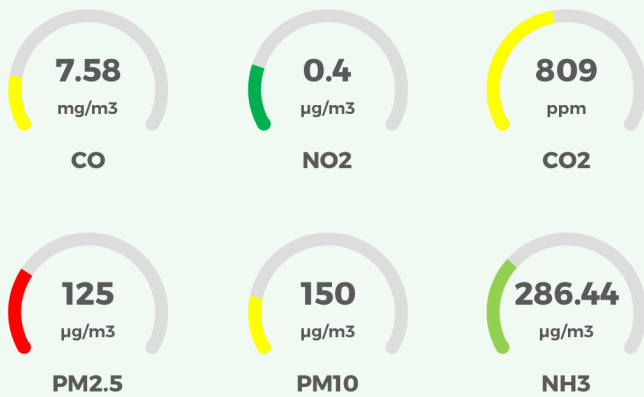


## “We are sensing that you are breathing ”

The Prkruti platform is all about smart notification and alerts towards the air quality, which will guide you to take steps against air pollution. It is difficult to understand the air quality with just digits and graph, but here we come up with state of the art design, color code, standard units and value of the air pollutants

### AIR QUALITY INDEX, COLOR & NUMBER

It is the standard method that represents the purity of the air as against the presence of several pollutants. By the values, unique color codes and status it is easy for everyone to justify air quality.

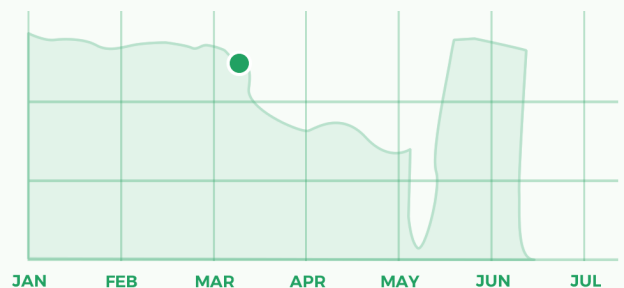


### POLLUTANTS DETAILS

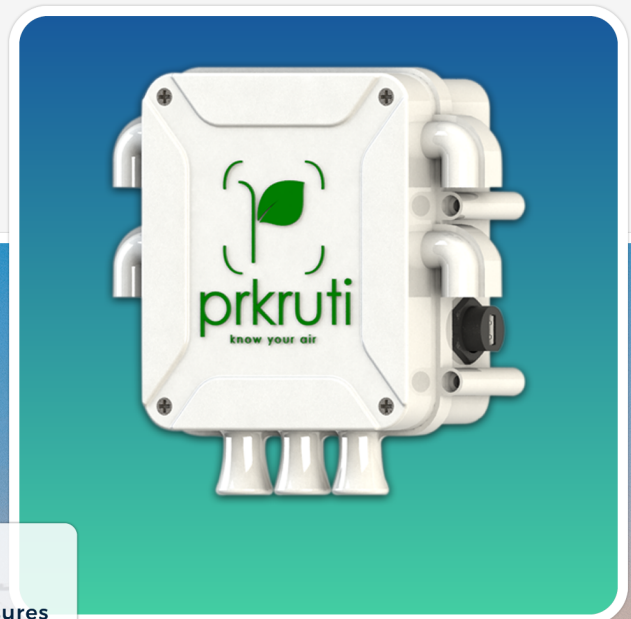
Prkruti platform provides six major pollution data in standard units, values and color codes along with the weather parameters which helps to justify the weather and air quality together

### HISTORICAL DATA

Open source data base that allows you to check the previous data which will guide you to identify the pollution at any particular location.



## Product Details



The Prkruti device is an IOT enabled robust technology which measures all the parameters of pollution. This low cost, easy to maintain device is weather and water proof which is easy to use - you can just plug in the device and it will start monitoring data right away. The device can be easily installed anywhere, whether it is a wall or a pole.

Prkruti monitors air quality in real time- the outdoor device communicates data via Wi-Fi and GPRS to a central server which then displays the data on the website. What's more, the device can run independently without any external source of energy as it is solar powered.

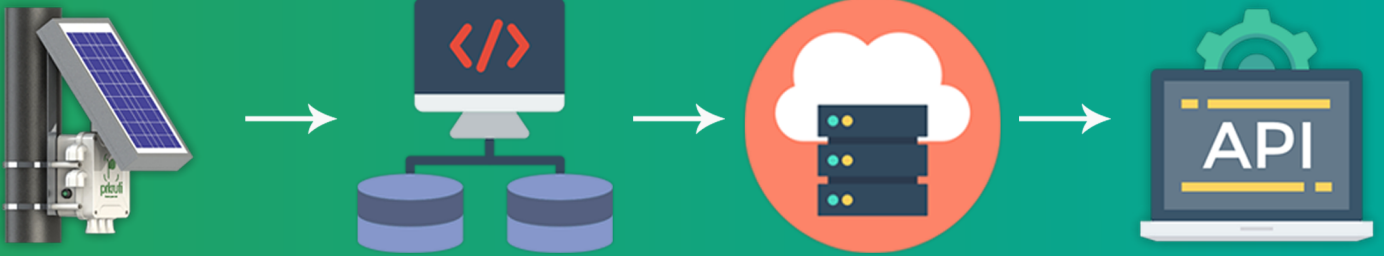


COLLECTING

VALIDATING

ANALYSIS

API



1

2

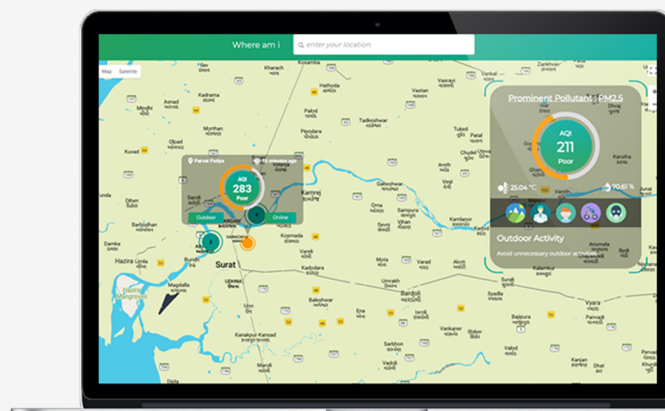
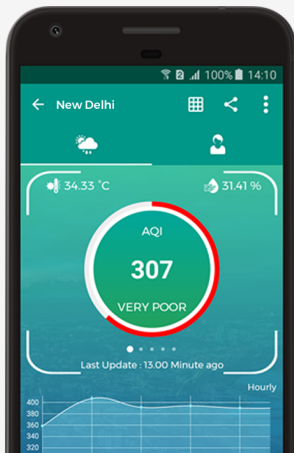
3

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## How it works?

Prkruti is an open source platform, where you can track real time data from various sources. The Website and application have been developed in synergy, with an elegant GUI interface and design.

For a regular person, individual data of parameters do not make any sense. Prkruti uses specialized software to depict individual parameters into reliable and easily understood data, which is then summed up into a single air pollution measurement index- easily understood by anyone.



## Powerful Features



Wifi Connectivity



GPRS Connectivity



Water Proof



SD-Card Backup



USB



AES-128 Encryption



RTC Date Time



Plug & Play Design



Over the air update



Solar Power



Tamper Proof



Weather proof

## Technical Specification

### PROCESSOR

Low power 8 Bit MCU, Clock 16MHz, 128kB Flash, 2kB EEPROM, 8kB SRAM

### CONNECTIVITY

WiFi 2.4GHz( IEEE 802.11 b/g.)

GPRS (900-1800MHz)

### POWER

**Solar :** 5W, 500mA

**Battery :** Li-ion 3.7V, 7800mAh

**Power Consumption :** Active : 150mA  
Dep Sleep : 7µA

**Backup :** 5 - 7 Days

### SD CARDS

8GB, FAT32

### OPERATING VOLTAGE

3.3V / 5V



## Product Details



## Sensor's specification

Sensor	Type	Range	Resolution
Temperature	Digital MEMS	-40 to 125 °C	0.01 °C
Humidity	Digital MEMS	0 to 100 %RH	0.04% RH
Air Pressure	Digital MEMS	20 to 110 kPa	1.5 Pa
Noise	Analog	30 to 130 dB	1 dB
PM2.5	Light Scattering	0 - 500 µg/m <sup>3</sup>	1 µg/m <sup>3</sup>
PM10	Light Scattering	1-1000 µg/m <sup>3</sup>	1 µg/m <sup>3</sup>
Co <sub>2</sub>	Electrochemical	350-10000 ppm	1 PPM
Co	Electrochemical	0-100 ppm	0.01 PPM
No <sub>2</sub>	Electrochemical	0-10 ppm	0.01 PPM
NH <sub>3</sub>	Electrochemical	0-500 ppm	0.01 PPM
CH <sub>4</sub>	Electrochemical	>1000ppm	0.01 PPM

## What Does it Sense?



Temperature



Air pressure



Noise



Methane



Humidity



Carbon dioxide



Ammonia



Nitrogen dioxide



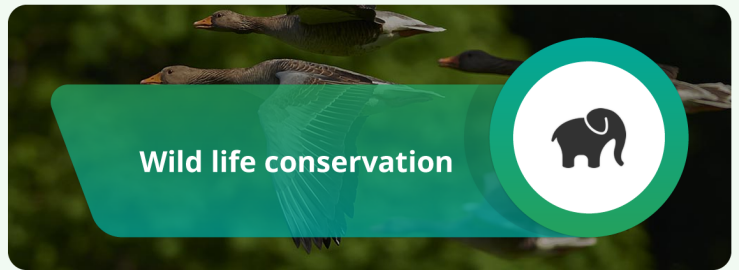
Carbon monoxide



PM2.5



PM10





## Who we are?

Jal Technologies Pvt. Ltd is a company specializing in embedded systems. We create, design, develop and implement embedded systems for our clients. With the growing concerns for global warming and pollution, we have developed Prkruti, a device which helps to track, monitor and measure pollution and climatic levels at various locations which will help us to understand how seriously the issue of pollution is affecting people's lives.

The Prkruti device can be used for agriculture, air quality monitoring, data science and smart city solutions. It can be installed anywhere and is independent as it can work with solar power, being eco-friendly in the process.

Our team of dedicated experts is passionate about saving the environment, and through Prkruti we intend to help the Government, industries and NGOs to help achieve the goal of lower emissions and a brighter future for generations to come.

## Vision & Mission

### Vision

Through our efforts and through the collective efforts of the government, industries and NGOs, we want to see a future which is secure for the next generations - a future devoid of any extreme climatic conditions or complications due to global warming. We see Prkruti as the first step towards a future of normal climatic conditions and we are currently and will always strive to liaise with the relevant authorities to arrest climate change.

### Mission

We want our Prkruti devices to be installed at various locations to ensure proper measurements of climatic conditions and pollution in the atmosphere. We want to help local governments, NGOs and industries to understand the gravity of the situation with air pollution they are currently dealing with. We will always partner with whoever shares our concerns.

## Contact Us



### Headquarter

305 - Sunshine complex, Nr. Sudama Chowk,  
Opp. CNG Pump, Mota Varachha,  
Surat- 394101



### Contact Us

Mo. : +91 7202036363  
Email : info@prkruti.com  
www.prkruti.com

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