



# INTO VATION FOR THE FUTURE CONNECT



**#CONNECTIVITY FOR CONTINUITY** 





#### COMPANY

SensorDrops Networks Pvt. Ltd.: A newfangled company dedicated to address basic social needs by utilizing advanced Internet of Things (IoT) based solutions. With IIT Kharagpur professionals and a team of bright and dedicated researchers at the reins, we design and deploy contemporary solutions to overcome domain-specific challenges using economical and sustainable means. The team has already won several awards including the recent Gandhian Young Technological Innovation Award for the system of battery-less IoT sensing from the President of India in March 2018.

#### **OBJECTIVE**

To provide continuous, real-time as well as remote monitoring of patients (hospital, ambulance, residential).

#### MOTIVATION

The negligence in frequent health check-ups due to busy schedule results in overlooking of any health problem that might lead to disease. The screening of health vitals helps in finding problems early which leads to prevention or better chances of treatment to avoid any unfortunate consequences. Moreover, it becomes mandatory for people with chronic health conditions as well as elderly people to get continuous monitoring/frequent check-ups to avoid any emergency. However, regular visits to hospitals also add up to the financial burden of many in our country. We aim to address the constraints that hinder healthcare of common mass.



#### MARKET SCENARIO

In the global context, there are companies such as Spacelabs Healthcare, Omron, Philips, Terumo Cardiovascular Group, GE Healthcare, Honeywell and few others that aim to provide a multi-parameter patient monitoring system. The devices from these companies provide remote monitoring of patients' vitals as well as storing and sharing of data with the caregivers. Majority of them are addressed towards hospital usage with few providing remote in-home healthcare device. However in Indian context there exist no such remote health monitoring solutions. For common Indian households affording the world-wide available monitoring device becomes cost inefficient. Keeping all the constraints in mind we offer to provide low cost integrated health monitoring device, EpiOneNG as an elementary convenience along with optional services for data storage, access and online appointments to reduce hassle. Our suggestive healthcare system facilitates portability and hence is envisioned to be used in hospital, in-transit (ambulance), home, and workplace.

# WHAT IS EPIONENG? WHAT IS THE VALUE PROPOSITION?

The developed product, EpiOneNG aims to extend regular preliminary clinical check-up close to the hands. It is a cost-efficient, easy-to-use, and portable device that measures and stores essential health parameters. EpiOneNG uses non-invasive sensors to monitor the vital parameters – blood pressure, pulse rate, blood oxygen level, and body temperature. The collected data are sent to a remote server over a secured network to be accessed by healthcare providers. The device supports protected and



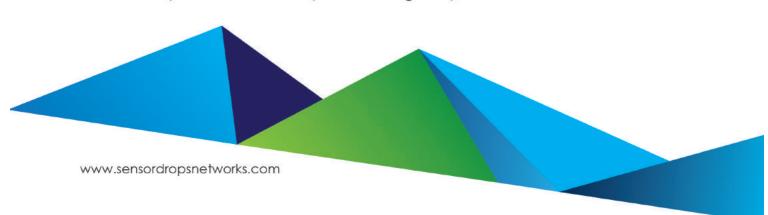


intuitive touchscreen based user interface for verified users to log into the device and view the real-time data recording in offline mode. For fast log-in during time-critical situations, our product comes in handy with biometric- authentication. Our objective is to provide remote vitals monitoring while sitting back at home/work at a low cost without any fuss. We also offer secure storage and on-demand digital services in the form of online appointments, basic analytics, and doctor's advice. Healthcare data analytics are continuously executed on the raw data to detect any unusual condition. This helps the doctors at the destination hospitals to easily access the analytics and cater any suggestions upon detection of irregularity.

The flexibility in remote treatment does not compromise with the safety and security of a user's identity and health data with any third party. Precisely, we value medical confidentiality of the users.

#### WHO IS THE END CUSTOMER?

A regular clinical check-up is crucial for every individual. EpiOneNG is developed to meet the frequent need of tracking vitals which can be used by people (healthy or sick) at home, in office, in ambulatory transit, and by doctors or paramedics in hospitals. While India moves towards digitization, we made an effort to extend a low-cost integrated digitized solution to put self-care into practice regularly.







## SOCIO-ECONOMICAL OR ENVIRONMENTAL IMPACTS OF EPIONENG.

Our tele-medicine product will impact the society in terms of patient self-assessment, self-efficacy, and self-management. It will offer health literacy and awareness to the people thereby bridging the gap between developing and underdeveloped regions. Continuous monitoring helps in avoiding unexpected medical emergency which brings personal, financial, and social burden. By offering the remote diagnostics, our product will extend the reach of healthcare services to underprivileged and remote rural communities. Our product being low cost, can be utilized by the weaker section of society thereby uplifting the societal standards. The use of non-invasive sensors makes our device environment-friendly. Further, with the expansion of our business it will create jobs in the market and elevate the socio-economic status





## PRODUCT OVERVIEW:

- Tele-health system with connected vitals
- Fully mobile and portable
- On-the-go real-time monitoring
- Over-the-network remote patient monitoring
- Privacy protected data management
- Web-based online access to data
- Basic analytics to anticipate risks

#### MAIN FEATURES:

- Touchscreen user interface
- Live-data visualization
- Biometric authentication
- Fingerprint based log-in access for emergency situations
- Plug-n-play sensor integration







#### SENSOR USED

- Pulse Oximeter Sensor
  - > Fingertip clipping
  - > Measures
    - pulse ratetoring
    - **blood** oxygen saturation level
- Body Temperature Sensor
  - Fingertip touching
    - > No calibration required
    - No contamination with body fluids (saliva, sweat)





#### SENSOR USED

- Blood Pressure Sensor Module
  - ONO calibration required
    - > Easy to operate

#### TOP 3 COMPETITORS.

As of now we don't have any Indian competitors. However, the top 3 leading global competitors are:

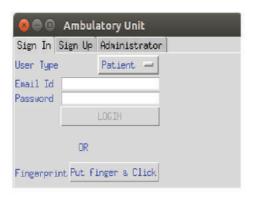
- 1. Spacelabs Healthcare
- 2. Omron Healthcare, Inc.
- 3. Philips

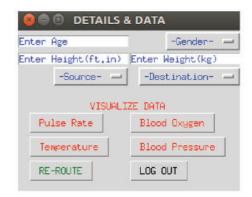
These companies are into developing tele-monitoring systems. They use advanced technology to provide continuous information on important patient parameters. The range of devices from these companies supports quick and clear data visualisation via wide touchscreens. The advanced physiological monitoring and clinical informatics based products by these companies provides basic screening as well as complex surveillance in critical care.

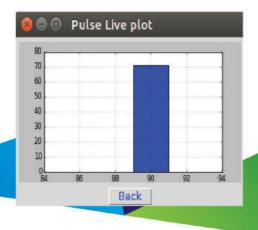


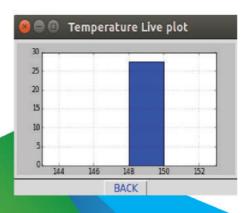


#### SYSTEM INTERFACE:

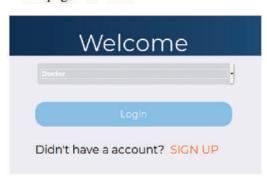


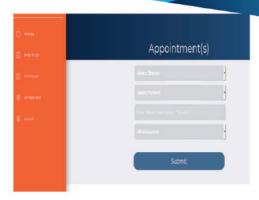






#### Webpage Interface:





#### www.sensordropsnetworks.com

#### **Head Office**

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