

Corensis® Medical Kiosk offers an automation-based health platform that performs basic health measurements with the help of high precision medical sensors and advanced algorithms.



#### Efficiency

Shortens vital measurement duration and provides more efficient examinations.



#### Easy to Use

Offers an easy to use unattended vital measurement experience.



#### Voice Assistant Support

All steps are designed to be managed via touch or voice enabled interface according to users' preference.



#### Image Processing Technology

ID verification processes are accelerated with image processing technology.



#### Reliable

Corensis® Medical Kiosk fulfills medical certification requirements.

(ISO 13485, CE (93/42/EEC), IEC/EN 61010-1, IEC/EN 61010-2-101, IEC/EN 61326-1, IEC/EN 61326-2-6)



# Vital Measurements



## User Information

Authentication by ID number or facial recognition system  
Creating patient medical history with the help of a voice assistant

INFO



## Body Temperature

Contactless forehead temperature measurement from 3-7 cm with an infrared sensor

°C



## Oxygen Saturation

Fast oxygen saturation measurement with a dual-wavelength with photodiode technology  
Real-time respiratory rate from a photoplethysmogram using special filters

SpO<sub>2</sub>



## ECG

Practical single-channel ECG measurement from the palm through the grip electrodes  
Heart rate variability, PR, QT, QRS intervals, heart speed, and arrhythmia analysis

ECG



## Blood Pressure

Systolic, diastolic blood pressure measurement with the oscillometric method  
Comfortable and reliable measurement with tunnel type blood pressure cuff

SYS/DIA

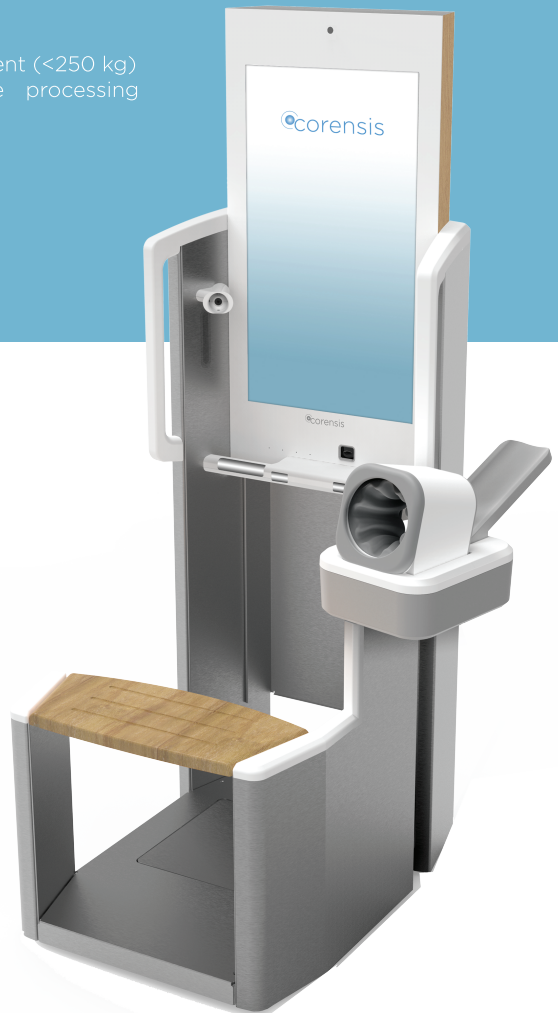


## Body Mass Index

Medical precision weight measurement (<250 kg)  
Height measurement with image processing technology

BMI

- Body mass index calculation
- Basal metabolic rate calculation
- Ideal weight calculation

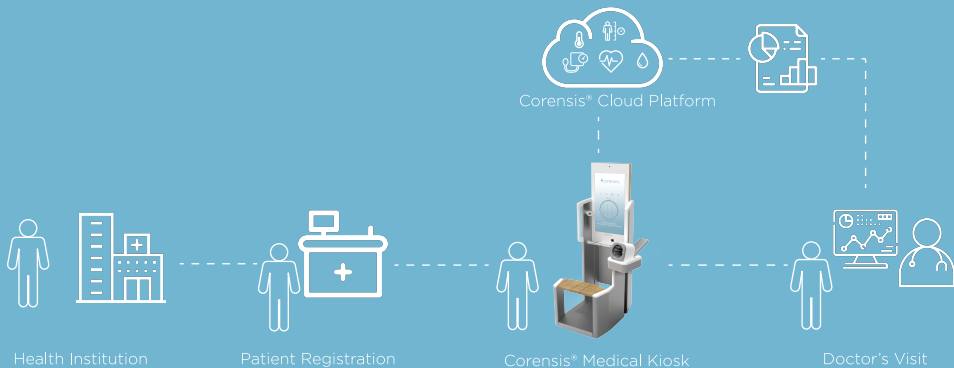


2020 Best IoT Healthcare Platform

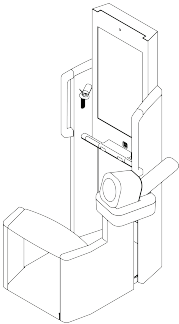
Corensis® produces highly accurate results using special algorithms for each vital measurement.

The ECG module transforms the electrical activities of the heart into an ECG graph and runs an analysis with machine learning supported, custom-developed smart algorithms to detect arrhythmias including Atrial Fibrillation, Tachycardia, and Bradycardia. Moreover, time-stamped ECG wave intervals are analyzed to provide heart rate variability and PR, QT, QRS intervals.

Whilst smart algorithms and experimental coefficients processes are used to determine blood pressure, respiration rate, oxygen saturation and body temperature from the vital measurement data collected from medical sensors. It performs height measurement by using image processing algorithms.



# Technical Specifications



|                                |   |
|--------------------------------|---|
| Operating System               | Ubuntu 18.04 LTS                                    |
| Dimensions                     | W: 850mm, D: 885mm, H: 1760mm                       |
| Weight                         | 130 kg  |
| Maximum Seat Load              | 250 kg  |
| Operation Condition            | 10°C to 35°C, %20 to %85 R.H. (non-condensing)      |
| Storage Condition              | -10°C to 60 °C, %10 to %90 (non-condensing)         |
| USB Audio Output Power         | 3,3 W   |
| Touch Screen                   | 32 inch LED Capacitive Touch Screen                 |
| Resolution                     | 1920×1080   |
| USB Camera Resolution          | FHD (1920X1080)                                     |
| Connecting Power Supply Input  | Universal 100-240 Vac/50-60 Hz                      |
| Connecting Power Supply Output | 18V/3,43 A & 24 V/2,8 A                             |
| Internet Connection            | Ethernet Cable or 2.4 GHz Wireless Internet (Wi-Fi) |

|  |  |
|--|--|
| SpO <sub>2</sub> Measurement Range       | %0-%100  |
| SpO <sub>2</sub> Accuracy                | %70- %79 ± %3, %80-%100 ± %2, others are undefined   |
| SpO <sub>2</sub> Resolution              | %1   |
| ECG Heart Rate Measurement Range         | 0-250 beats/minute (bpm)   |
| ECG Heart Rate Measurement Accuracy      | ±%1 or ±1 bpm if heart rate < 100  |
| Heart Rate Resolution (Increment)        | 1 bpm  |
| Blood Pressure Systolic Measuring Range  | 60-255 mmHg  |
| Blood Pressure Diastolic Measuring Range | 30-195 mmHg  |
| Accuracy of Static Pressure              | ±3 mmHg  |
| Pressure Resolution (Increment)          | 1 mmHg   |
| Temperature Measurement Range (Forehead) | 22°C to 44°C   |
| Temperature Accuracy (Forehead)          | ±0,2°C for the range of 36.0° to 39.0° or ±0.3 for the range of <36.0° or >39.0°                                   |
| Temperature Resolution (Increment)       | 0,1°C  |
| Load Cell Measurement Range              | 4 kg-250 kg / 8,8 lb-550lb   |
| Load Cell Graduation (Increment)         | 0,1 kg/0,1 lb  |
| Load Cell Accuracy                       | 4,0 kg-100,0 kg ± 0,3 kg<br>100,1 kg-150,0 kg ± 0,5 kg<br>150,1 kg-200,0 kg ± 1,0 kg<br>200,1 kg-250,0 kg ± 1,5 kg |





**Arçelik**

corensis@arcelik.com

©2020