



Patent applied

Designed and Manufactured in **INDIA**

Current catastrophic situation made us realize the importance of hygiene for safe environment. To rejuvenate the idea of hygiene AKCMed presents a smart detoxifying unit "SELF CHECK" for fighting the global pandemic.

Touchless "SELF CHECK" automatically measures body temperature in seconds. "SELF CHECK" is invaluable solution for quick detection of illnesses and reduce the spread of bacteria & viruses, it vets staff members and the public before entry to premises such as Schools, Malls, Restaurants, factories, Railway stations, Airports and Corporate offices.

Kiosk features a touch-less UV-C Box to disinfect bag, cell phone and keys in less than 10 Seconds. UV-C Box kills 99% Viruses and Bacteria within 10 seconds on exposed surface

The

SelfCheck

Kiosk

PURPOSE

Early recognition and management of COVID-19

4 Quick Precautions

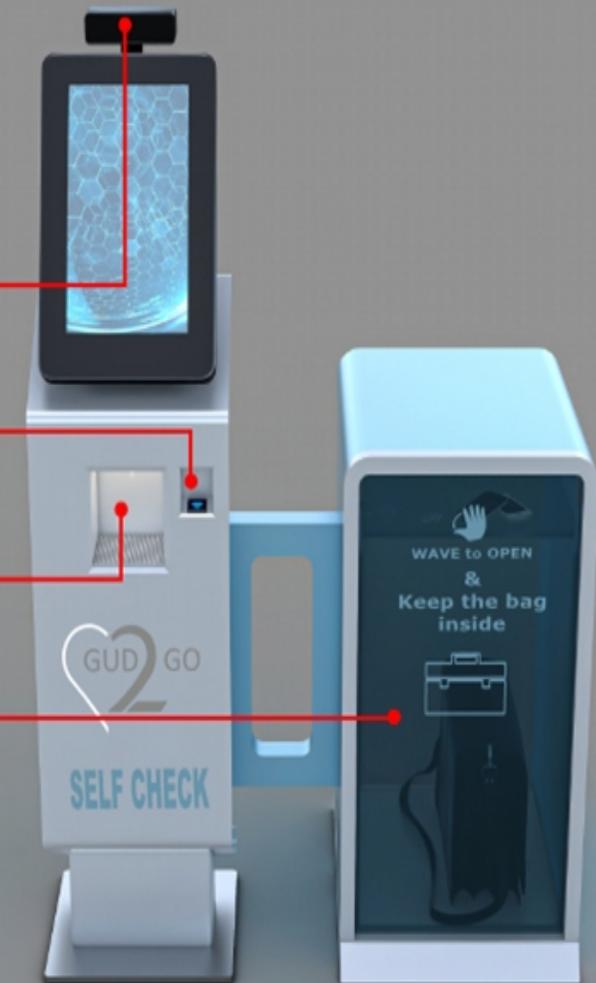
▶ **Detects Fever**
High Fever indicates syndromes associated with COVID-19

▶ **Checks Oxygen levels (SpO2)**
Oxygen level below 90% indicates syndromes associated with COVID-19

▶ **Touch-less Hand Sanitizer**
Decreases the risk of getting sick and spread of Virus

▶ **Disinfection Chamber for Bag, Mobile, Keys etc. by UV-C**
UV-C kills 99% Virus in 10 seconds thus reducing the spread

▶ **The Solution displays and records all data at a single location**



Verbal Assistance for easy operation

Use Areas

SelfCheck Kiosk solution is need of the hour, it can be installed at various public places such as Office areas, Schools, Community Buildings, Restaurants, Hotels, Malls, Hospitals, Railway Station, Airports etc., for the public safety and welfare.

Features

- Touch-less fully automated kiosk
- Detects body temperature of user standing in front of device
- Temperature detection in 1 second
- Blood Oxygen & Heartbeat measurement
- Set your own acceptable temperature thresholds
- Verbal Warning / Success message plus LED traffic light system
- User-friendly Verbal Instructions
- UV-C Box kills 99% Virus / Bacteria
- Compact design Ultra-slim footprint
- Built-in PC to support the application needs



Technical Specifications of Self Check Kiosk



1. Introduction:

To rejuvenate the idea of hygiene presents a smart unit “SELF CHECK” for fighting the global pandemic. Touchless “SELF CHECK” automatically measures body temperature in one second. “SELF CHECK” is invaluable solution for quick detection of illnesses and reduce s the spread of bacteria & viruses, it vets staff members and the public before entry to premises suc h as Schools, Malls, Restaurants, factories, Railway stations, Airports and Corporate offices.

Kiosk features a touch -less UV -C Box to disinfect bag, cell phone and keys in less than 10 Seconds. UV -C Box kills 99 % Viruses and Bacteria within 10 seconds on exposed surface.

2. Features:

2.1. Helps in early recognition and management of COVID -19:

- 2.1.1. Fever Detection: High Fever indicates syndromes associated with COVID -19
- 2.1.2. Temperature detection in 1 second with high accuracy (+ - 0.3 Degree Celsius)
- 2.1.3. Detects body temperature of user standing in front of device.
- 2.1.4. Blood Oxygen & Heartbeat measurement: Oxygen level below 90% indicates syndromes associated with COVID-19. UV-C light for disinfection of Oximeter surface to kill any infection.

2.2. Helps in prevention against COVID -19:

- 2.2.1. Touch-less fully automated kiosk - Operates with user-friendly Verbal Instructions
- 2.2.2. Touch-less Hand Sanitizer - Decreases the risk of getting sick and spread of Virus.
- 2.2.3. Disinfection Chamber for Bag, Mobile, Keys etc. by UV -C light. UV -C kills 99% Virus in 10 seconds thus reducing the spread.
- 2.2.4. Verbal Warning / Success message on display.
- 2.2.5. Built-in PC to support the application needs. The Solution displays and records all data at a single location which helps to trace COVID-19 suspects.

3. Areas of applications:

- 3.1. Various public places like Office areas , Schools, Community Buildings , Restaurants, Hotels , Malls, Hospitals, Bus Stops, Railway Station, Airports etc.

4. Designing & Construction Parameters:

4.1. Overall Product Dimensions (in mm)– 1150(W) x 700(D) x 1600(H)

- 4.1.1. Kiosk dimensions (in mm): 400(W) X 450(D) X 1600(H)
- 4.1.2. UVC Disinfecting Chamber (in mm): 650(W) X 700(D) X 810(H)
- 4.1.3. Weight: Approx. 150 Kgs

- 4.2. **Design Requirement:** The self-check kiosk is made up of two units: Kiosk and UVC Disinfecting chamber. The Kiosk has provisions to accommodate one display, one camera, PC system, sanitizer dispenser, temperature sensor, pulse -oximeter, and speakers. UVC Disinfecting chamber shall have UV -C lights. The entire design is modular consisting of replaceable parts. The self-check kiosk is IP22 compliant to ensure rodentproof enclosure.

- 4.3. Oximeter slot has been designed in a way that it opens automatically when a person is standing in front of it. This unit is disinfected once the user completes the process of measuring the **SPO2** levels. This unit features an automatic shutter which is sensor operated.
- 4.4. Hand Sanitizer section is designed for touch free operations and it dispenses sanitizer once the user inserts the hands in sanitization unit.
- 4.5. Kiosk screen has a feature to accept user face in defined perimeter when the user adjusts the face in pre-sketched perimeter.
- 4.6. UVC chamber is equipped with motion sensor and door opens and closes once the user waves the hands over it.
- 4.7. **Structure:**
- 4.7.1. **Kiosk:**
- 4.7.1.1. Base plate is minimum 8.00 mm thick HRCA MS Sheet.
- 4.7.1.2. Outer cover of base is made up of minimum 1.00 mm thick SS 304 Sheet.
- 4.7.1.3. Base Structure is made up of minimum 2.00mm thick CRCA MS Sheet.
- 4.7.1.4. Top Structure, front curvilinear panel, side panel and rear door is made up of minimum 1.50mm thick CRCA MS Sheet.
- 4.7.1.5. For display, camera & sensor module the casing is made up of minimum 1.50mm thick CRCA MS Sheet.
- 4.7.1.6. Mounting arm is made up of minimum 2.00mm thick CRCA MS Sheet.
- 4.7.1.7. Camera and temperature unit casing's Angle can be adjusted as per the anthropometric data of user population.
- 4.7.1.8. All Device Mounting Brackets is made with 1.50mm thick CRCA MS Sheet.
- 4.7.1.9. Rear door is provided with hinges and is made up of 1.50mm thick CRCA MS Sheet. The doors shall have two-point lock system.
- 4.7.2. **UVC Disinfecting chamber:**
- 4.7.2.1. Outer cover of base is made with minimum 1.00mm thick SS 304 Sheet.
- 4.7.2.2. Base Structure is made up of minimum 1.50mm thick CRCA MS Sheet.
- 4.7.2.3. Top panel and side panel is made up of minimum 1.50mm thick CRCA MS Sheet.
- 4.7.2.4. Front and rear decorative frame is made up of 1.50mm thick CRCA MS Sheet with a cross-section of 40mmX40mm.
- 4.7.2.5. Rear Cover is made up of 1.50mm thick CRCA MS Sheet and fixed to base and top panel through SS bolts.
- 4.7.2.6. Front door is provided with hinges and is made up of 1.50mm thick CRCA MS Sheet. It shall open and close automatically.
- 4.7.2.7. Bottom Shelf contains frame made up of 1.50mm thick CRCA MS Sheet with a cross-section of 25mmX25mm. Bottom shelf of UVC chamber is clad with diamond shape wire mesh.
- 4.7.2.8. UVC chamber- Interior walls (side panels and top panel) has diamond shape wire mesh cladding.
- 4.7.2.9. Top Shelf is provided to keep wallet, mobile & keychains.
- 4.7.3. Connector for Kiosk and UVC Disinfecting chamber is made up of 1.50mm thick CRCA MS Sheet with a cross-section of 60mmX60mm.
- 4.8. **Finishing:** All MS sheet metal parts are processed in a seven-tank pre-treatment process in automatic nanotechnology powder coating plant. They are finished with a durable epoxy polyester powder coating with an average application of minimum 60 - 120 microns over all surfaces as per Powder Coating Test: ISO 2409, ASTM D 2794, ASTM D 552. All parts made up of SS 304 are having mirror finish.
- 4.9. **Grouting:** Base has concealed provisions to grout the unit to the floor with anchor fasteners.
- 4.10. **General Requirements :** All doors, claddings etc. are modular and are replaceable in an unlikely case of damage. Proper identification codes / stickers / numbers are provided for quick identification & replacement of damaged components. All doors have Formed In-Place Foam Gasket to protect the equipment from dust particles.

4.11. Key Components:

4.11.1. **Display:** 18.5 inch

4.11.2. Temperature Sensor:

1.1.1 High Accuracy (± 0.3 Degree Celsius)

1.1.2 Detection duration: 1 second

1.1.3 Body Sensing Method: Infrared based Photoelectric detection

1.1.4 Detection Distance: 300mm – 500mm Detection Position: Forehead (no contact)

1.1.5 Detection Result: Screen Display and Buzzer (above set threshold temperatures)

4.11.3. **Sanitizer Dispenser:** Non-contact hand sensing auto liquid discharge

4.11.4. PC System:

1.1.6 Dual core Processor 4GB Ram

1.1.7 60GB Storage

1.1.8 Wi-Fi and Lan supported

4.11.5. Speakers:

1.1.9 Audio-visual Instructions

1.1.10 Alarms for abnormal body parameters

4.11.6. Camera:

1.1.11 2MP

1.1.12 Optional attendance system

4.11.7. Pulse Oximeter

1.1.13 Blood O₂ Level Measurement

1.1.14 Heartbeat Measurement

1.1.15 UV-C light disinfection.

4.11.8. Software

4.11.8.1. Application Software (optional remote monitoring)

4.11.8.2. Integration with existing ERP / Attendance system available at additional price.

4.11.9. **UV-C Disinfecting Chamber:** UV-C light disinfection.

5. Technical Parameters

5.1. Low Power Consumption - 150 Watts

5.2. Operating Voltage - Standard 220V, 110V available on request

5.3. Temperature Display – Digital

5.4. Disinfecting Chamber Size suitable for - Laptop bags, cabin luggage bags, wallet, keys, mobile, lunch box etc.

6. Warranty & AMC:

6.1. Warranty against manufacturing defects: 1-year standard warranty.

6.2. Post warranty period AMC can be provided for two years at an additional cost.

7. Product Certifications:

7.1. The powder coating shall pass 1000 hours FOG - salt spray test as per ASTM B117.

7.2. The powder coating shall pass Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kgs of impact load.

7.3. The powder coating shall pass Scratch Test as per IS:101 -1964 by applying 2kgs. Load.



- 7.4. Bare Enclosure is RoHS certified to ensure restriction of hazardous material.
- 7.5. UL Witness Certificate
 - 7.5.1. Process completion time of less than 30 seconds for individual person.
 - 7.5.2. 100,000 cycle testing for dispenser unit.
- 7.6. NABL Calibrated Temperature sensor
- 7.7. Process Compliance on UV-C box from Indian Institute of Technology (IIT) Guwahati.

Note: Latest Versions & Norms shall be used for testing and compliances purpose. All raw material shall have valid test certificates and shall be submitted as per the requirement .

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