

Mi_care Test Kit Design.

The *Mi_care Test Kit* is an electronic device composed of electronic sensors (lensing devices and a digital camera) and control circuit implemented on Raspberry PI for internal and external device control (The motherboard hosts the control program; the *AlgNos* software program) for device connectivity and networking and data transfer via Bluetooth, USB and/or WIFI. The device contain mini electronic motors for camera, lenses and sample pane motion adjustments. The ports (USB port, Pressure port), LEDS (ON/OFF LED, USB LED, Camera LED, Power LED, storage LED) and Control pad will be provisioned on the *Mi_care Test Kit*.

Finger print module may also be included on the initial design. Biometric authentication via fingerprint will be essential and mostly recommended over the use of pin or password to unlock the device. Fingerprint Authentication identifies the owner of the device by reading his/her genetic signature unlike a simple password which can be stolen and used to hack into the device and the user account. The *Mi_care Test Kit* should only be used by one person who is the real owner of the Kit.

The *Mi_care Test Kit* will be packaged as a medical suite alongside other medical products like Test slides, Test Tubes and chemical reagents if needed. A test manual in form of a video will be pre-burned in the Test Kit. This will be customized according to client's needs.

Health Tips and health living routine will be pre-burned in the Test Kit on request by the client. The health living instructions will be customized depending on client current health needs.

The client will use the *Mi_care Test Kit* alongside the system to enhance proper health management.

Device Configuration.

1. Press the starter button on top of the Kit, the *ON/OFF LED* color turns to red indicating that the device has been powered on and all necessary services are installed; the main AlgNos software and Drivers.
2. On the control pad, long press the button with the Bluetooth symbol until the *Bluetooth LED* turns blue.
3. OR connect your device to your phone or Laptop using USB cable. The *USB port* is located just below the slide entrance opening.
4. Check if the *USB LED* is powered on to green.
5. Check your computer, laptop, android phone, iPhone, or Smartwatch for any Bluetooth device; pair and connect to the *Mi_care Test Kit Device*.
6. Launch the *Mi_care android app, Desktop application or web application*. Login and navigate to *my devices >> add a new device* and click to choose the *Mi_care Test Kit device* (Normally the device will be identified by a unique number at the bottom of the device).
7. Provide the first time pin as indicated on the purchase warranty. Type and configure or Use the control pad and press “Enter” Button.
8. A pop message “Device configured successfully” must show on the screen. Then confirm if the *ON/OFF LED* changes from red to yellow.
9. Provide a new pin using the control pad on the device and press “Enter” Button or Type in the password field as indicated on the system and press Enter.
10. Press “Next” Button on the application as indicated.
11. The system asks you to place your right hand thumb finger on the device fingerprint scanner.
12. The color of the scanner should glow from red to green. If it glows yellow, remove your finger from the scanner and wipe your finger and place your finger again on the scanner until it glows green. Do the same for the left hand thumb finger.
13. You should see the *ON/OFF LED* turning to green, the system should display a message “Device registration complete!!”

14. After the pop up fades away, you should see the logo, *AlgNos* display on the app screen for seconds and finally the user menu is presented.
15. Consult the manufacturer's manual if anything goes wrong.
16. Subsequent authentications will be as easy as providing your password/PIN and fingerprint after powering on the *Mi_care Test Kit*.

MI_CARE TEST KIT TECHNICAL SPECIFICATIONS.

