

# Moving Vision Inspections Into the Future

Unlock the potential of any mobile phone or tablet by turning it into a fully featured vision inspection system. Cutting edge Deep Learning AI algorithms deployed to an on-premises server PC are utilized to process any image taken by the mobile device and provide an appropriate response signal back to the user as well as a PLC.



## WHAT IS IT?

Mobile Vision System is part cellular application and part server-based application. The whole process on average takes less than a few seconds to complete.



### Flexibility

Use any iOS, Android phone or tablet. The application is available on the Apple App Store and Google Play store, allowing multiple devices to run the same vision inspections.



### Ease of Use

Point camera at any inspection surface. Results returned PASS or FAIL in less than a second



### Freedom of Motion

Unlike traditional fixed mounted cameras, requiring cumbersome brackets to achieve a singular perspective, MVS puts the freedom of taking the perfect shot into the hands of the user.



### Low Cost of Ownership

No software subscription required. Inspections work through app downloaded to mobile device.

## Core Competencies

- Vision Inspection Made Mobile
- Available for both Android and iOS
- Utilizes Deep Learning AI Algorithms
- Flexible for product variations
- Software developed for industry
- Data remains on premises (not sent to cloud)
  - Cost effective inspections
  - No floor space required for vision hardware
  - Statistical Analysis



## MOBILE VISION SYSTEM

### DESCRIPTION

Mobile Vision System is part mobile application and part server based application. The system allows an operator equipped with a cell phone to acquire images of a select area to be inspected and sends that image to a server, where it is processed using both Deep Learning AI and traditional computer and machine vision algorithms. Once the images is processed, the system sends back the result to the mobile device, as well as any connected logic controllers. On average, this process can be completed within a few seconds.

### CHARACTERISTICS



#### Deep Learning

Deep learning software designed specifically for manufacturing. Mobile and reliable vision based software using state of the art machine learning algorithms developed for high variability for different vision applications



#### Communications

The system is localized and requires no internet connectivity. A Wi-Fi connection to a LAN is the basic requirement.



#### Applications



#### Hardware

Industrial PC or server running deep learning software. Android/iOS devices are used as imagers. You are not limited to the number of imagers you can use.



#### Data

The databases contain five configurable data tags: pass, fail, date, time, and part data. Recipes, user verification, and reporting are available as a service.

For more information contact [sales@aitechgroup.com](mailto:sales@aitechgroup.com) to set up a live demo. Use QR to view video on how MVS can benefit you.



This enables the use of mobile devices for image acquisition and inspect for:

- Part and serial number authentication
- Repair Verification
- General Quality Inspection
- Process verification
- Quality Audit
- Inline Inspection
- End of Line Inspection
- Assembly verification



#### Architecture / Communication

