



AUTOMATIC OPTICAL INSPECTION 5.0

GTMC SRL
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ABOUT GTMC

GTMC is a software house company that developed several industrial programs. Our first important realization is an MES that matches perfectly the modern electronic company. This important product developed over the past seven years is an economic but high-performant automatic optical inspection equipment.

GTMC developed one of the smartest AOI equipment on the market. We have spent seven years developing, testing, and debugging our equipment, and we present you a reliable, fast, and economical AOI equipment. And it can compete with all the others AOI which exist, but with an important advantage.

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THE PROJECT

Each electronic manufacturer must deliver quality, first. But, as you know, quality comes with a high cost if, during the manufacturing process, not all the production procedures have been followed by everyone.

Checking every single PCBA is a usual activity, but you cannot be sure that the check cycle time is respected and that the visual check, over thousands and thousands of PCBAs, is performed. This means that you risk delivering some fails or, in case your process includes, losing a lot of time to re-test, over ICT and Functional, PCBAs which have wrong, missing, or wrong polarity over one or more components.

On top of that, you cannot insure to your customers that the check control has been done and the result of that check.

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SOLUTION

GTMC developed AOI 4.1 in response to all those necessities with easy programming, reliable, fast, and cheap equipment.

With a solid chasis, IOs, strong Python code, and AI on board, our system ensures the performance that other brands ensure at a very high price.

AOI 4.1 software allows to import B.O.M.s, and component references to create a check program in minutes.

The technician can operate remotely while the operator checks the PCBs and fine tuning his check program easily.

By default, AOI 5.1 is set to don't allow operators to decide if the PCBA is pass or fail, but you can choose to permit it.

Each check and related pics are stored in the AOI 5.0 local database or where you wish.

Several reports are on board by native, but it is very easy to create a new one, following your necessity.

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NOT ONLY TOP!

AOI 5.0 can perform a top and bottom visual check, taking care that the top and bottom are part of the same PCBA. This means that you can check its solders as well.

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IMPROVEMENT

Our engineers work very hard to develop and create new features which permit you to have zero errors on a pass, and smart solutions to make your work easy, fast, and cheaper.

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HARDWARE

- Camera: 8 MP
- Max resolution: 3264X2448
- PC: Apple Mac Mini M1

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Press ESC to Exit or Space continue!

SPECIFICATIONS

- Maximum board size: 300 X 300 mm
- Minimum board size: 10 X 10 mm
- Defects detected: Wrong PN , Wrong polarity/orientation, missing component, bended component, short circuit, missing soldering, bad soldering
- Inspection time : 1 to 10 sec
- Inspection type: 2D
- Inspection algorithm: Template Matching by Normalized CrossCorrelation Method; Robust Template Matching Using ScaleAdaptive Deep Convolutional Features AI Barcode recognition
- Operating system: Mac Os Programming
- Skill Level: Operator or technician
- Data outputs: JPEG, JSON
- SPC Software: Real time local and remote monitoring of FPY, defects trend and production output

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FACILITIES

- Power: 230VAC, 50/60 Hz , 1A
- Footprint 430 X 460X 600 mm (WXLXH)
- Weight: 35 Kg
- Machine instalation: Less then 1 hour

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GET IN TOUCH!

Get in touch with us for more technical information, and schedule a visit so you can see how our GTMC AOI 5.0 system works!

We are more than sure that it is the perfect tool to set on each manual line on your shopfloor.

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