

# SMART MICROSCOPE CODE ISM-DL400

**AUTOMATICALLY LOCATE WORKPIECES  
REGARDLESS OF POSITION AND DIRECTION**

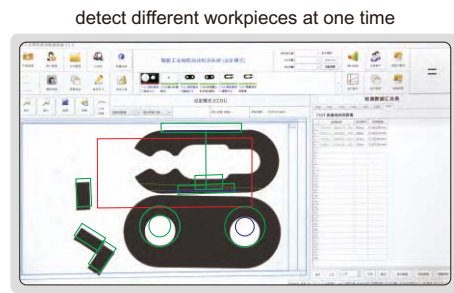
**BUILT-IN SOFTWARE  
WITHOUT COMPUTER**



NG: red light  
OK: green light

NG: buzzer warning  
sensor switch (triggered when an object passes by within 3cm and a detection is performed, the interval time between triggering and detection is adjustable)

- camera function
- surface defect detection
  - dimension measurement
  - read barcode
  - burr detection
  - contour matching
  - character recognition
  - color detection
  - read QR code
  - object counting
  - thread measurement



- Automatically identify different workpieces
- Automatically locate workpieces regardless of position and direction
- Built-in software, PLC control input and output interface
- Including multiple detection tools
- Automatically calculate, store the test results and export to Excel

Tool	Tool Name	Quantity	OK Count	NG Count	OK Rate	NG Rate
T102	Pin-hole detector	400	396	4	99.00%	1.00%
T103	Cluster	60	74	20	78.33%	21.67%
Summary		460	470	24	48.89%	51.11%

report showing the perform times of each tool, quantity of OK and NG, the report can be saved

Cluster	Detection number	Detection time	Detection color	Number of spots	Maximum radius
T102 Cluster	700101_00104_001	33ms	白色	0	0.0000mm
	700101_001151_001	33ms	白色	0	0.0000mm
	700101_001202_001	33ms	白色	0	0.0000mm

report of each detection is automatically created and saved

## SPECIFICATION

Magnification	15X~100X
Resolution	1920×1080
Pixel	2M
Single pixel size	3.75×3.75μm
Frame rate	60fps
Sensor	1/2" CMOS
Chip structure	FPGA+ARM
Operation system	Linux 3.10
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

## STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

## MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	Magnification	15~100X	30~200X
	Focus distance	70±2mm	70±2mm
	View filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	Magnification	30~200X	60~400X
	Focus distance	29±2mm	29±2mm
	View filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

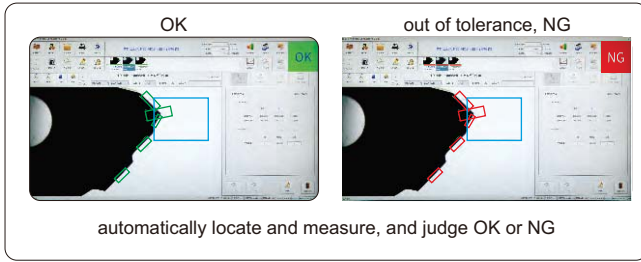
## OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
LED light	page 431~432
Auxiliary objective	page 433

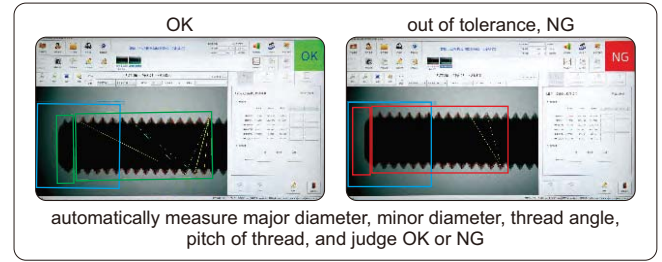
To be continued

■ APPLICATION EXAMPLES:

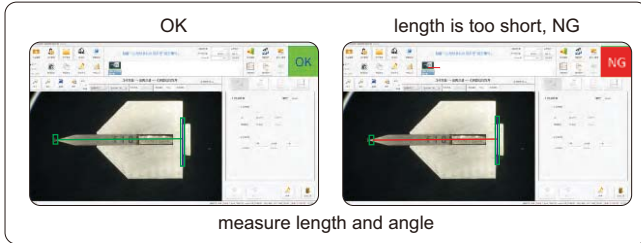
dimension measurement



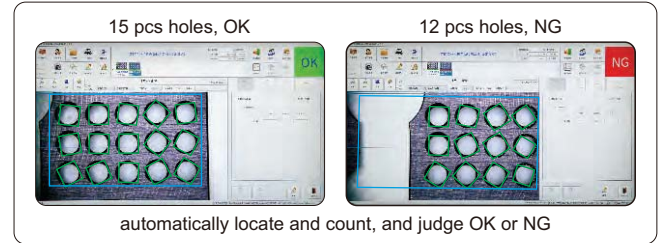
thread measurement



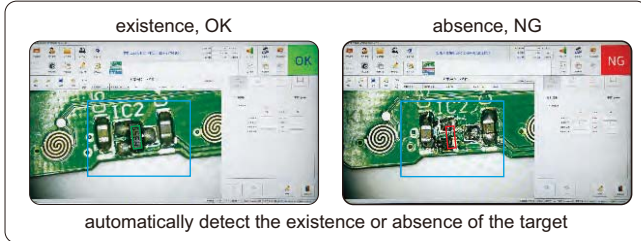
cutting tools measurement



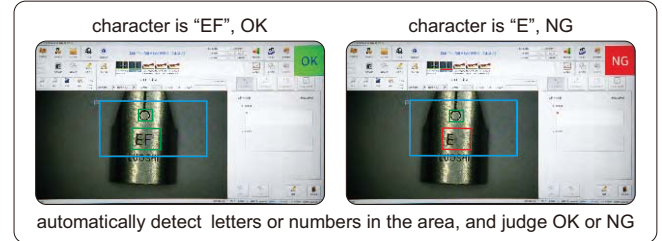
counting



existence or absence



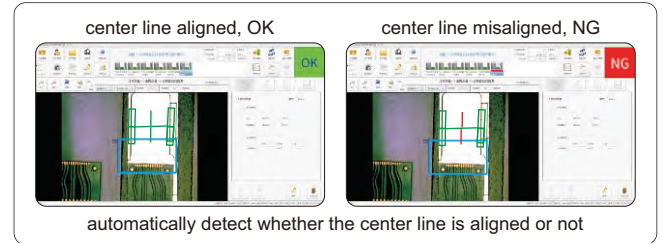
character recognition



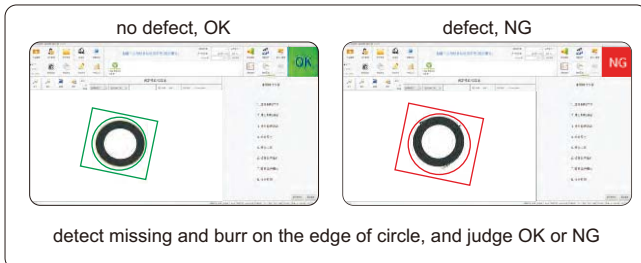
color detection



location detection



surface defect detection



glue detection

