

# Whole line inspection of PET bottles

## Specifications :

### Detail Introduction :

1. Bottle embryo inspection machine
2. Cap and liquid level inspection machine
3. Code inspection machine
4. Label the inspection machine
5. Cap pattern inspection machine

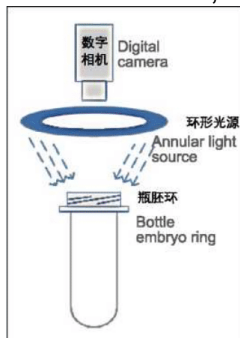
## 1. Bottle embryo inspection machine

### Inspection content:

Inside acquisition missing, outside missing, a point missing, whole missing, the bottle mouth deformation (bottle mouth is not round)

### Advantage?

- Using a high-speed camera to acquire a bottle's acquisition mouth image, the processing speed is fast, up to 50000 BPH.
- Using a touch screen, intuitive display.
- Specially made 15-inch bowl-shaped light source is adopted, the mouth of the bottle is uniformly light, and the utility model has the advantages of no dead angle, long service life, and energy saving.
- The inspection machine is stable, and the error rate is low.



Optical path design



Software system interface



Image processing process



## 2. Cap and liquid level inspection machine

**Inspection content:** high cover, crooked cover, no cover, safety fault, low level.

**Advantage?**

- Using a graphical man-machine interface is intuitive and concrete.
- The processing speed is fast, the inspection accuracy is high, and the fastest speed can reach 50000 BPH.
- Simple operation, easy to production line staff.
- Multi-angle inspection, no dead angle, less manual intervention, low false tick rate.
- Using high brightness LED light source, adjustable brightness, long life, energy saving, maintenance free.

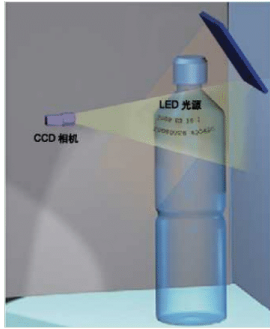


### 3. Code inspection machine

**Inspection content:** no code, code positions code partly missing.

**Advantage?**

- The advanced algorithm is stable and has high detection accuracy •Detect different code positions.
- The maximum speed is up to 72000 BPH.



Optical path design



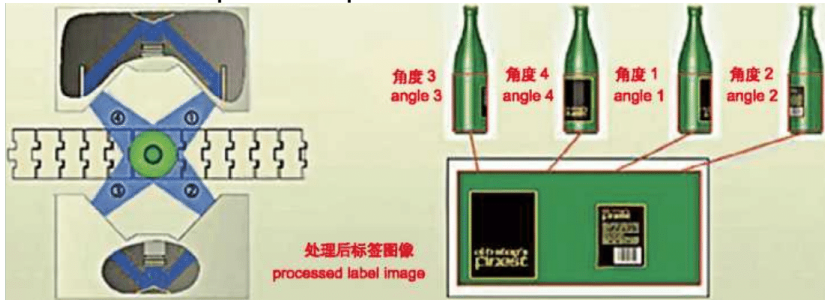
Software interface

## 4. Label the inspection machine

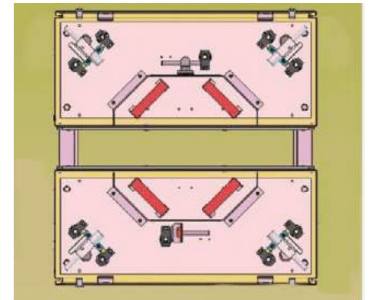
**Inspection content:** high label, low label, no label, damaged label, connective label, label logo

**Advantage?**

- 360-degree inspection.
- Multi-view stitching and color recognition technology are more reliable.
- The maximum speed is up to 36000 BPH.



4 images are collected from two cameras and spliced into a complete label image for subsequent processing



Optical path design

## 5. Cap pattern inspection machine

**Inspection content:** logo inspection, color inspection.

**Advantage:**

- Color recognition technology is used to inspect different caps accurately.
- Using self-developed algorithms, reliable inspection of the cap of the external logo, cap information, such as "thank you taste," "another bottle," and so on.
- The maximum speed is up to 60000BPH.

