

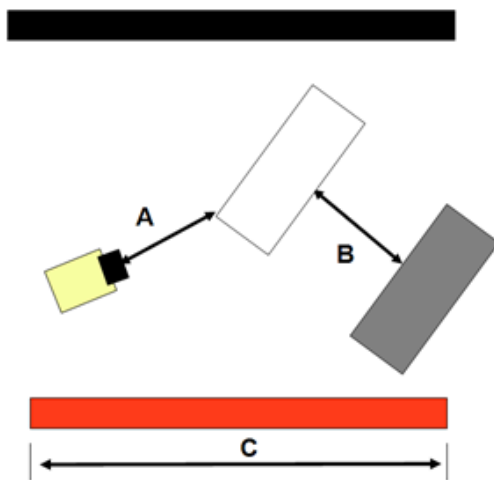


description of application

Inspection of plastic quart sized motor oil bottles for streak defects. The goal of this application is to image the bottles clearly to determine if there are any streak defects.



setup for inspection



Illumination: **L300-850-W** [300mm Linear Light 850nm IR - "Connect-A-Light"]

Light @ same angle as bottle

Filter: **BP850**

(A) Lens Working Distance: 12"

(B) Light Working Distance: 7"

(C) Horizontal Field of View: 8"

Top view of setup plastic bottle surface inspection



evaluation

Infrared lighting lends itself to be very useful when looking at different plastic applications. By lighting the bottle with an intense IR light the streaks show up. A good bottle appears very white almost washed out as a streaked bottle is much darker. The trick is to illuminate the bottle without creating too much hot spotting. In this application a linear light was used with good results. Increased results could be obtained by utilizing a high powered back light to create more even lighting.



Above: Left - Raw image of a good bottle. Right - Raw image of a streaked bottle.
Below: Filtered images of the bottles above.

