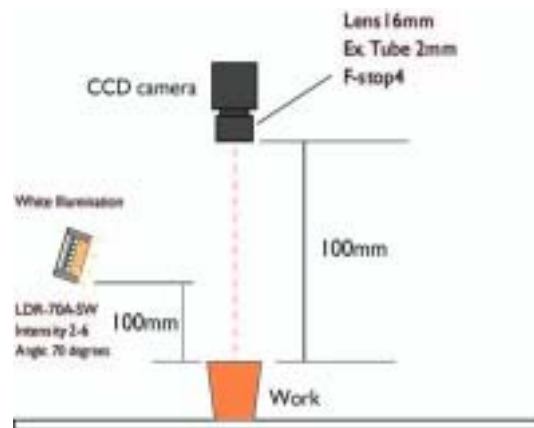


Tech Tip

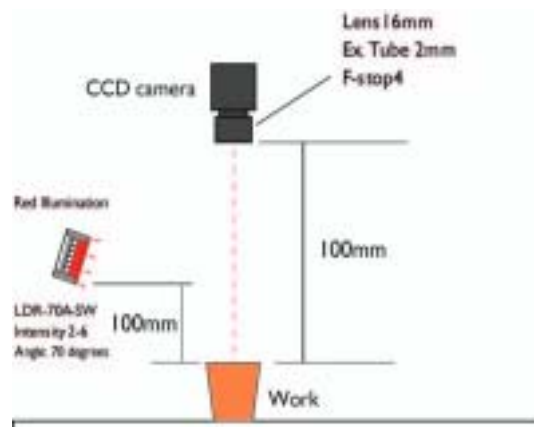
This Tech Tip comes courtesy of our illumination partners CCS Inc. of Japan

How can I separate text from a colourful background in order to perform OCR successfully?

One of the most common problems in machine vision is how to simplify the task so that the analysis becomes easier. In this example, the printed sell by date on yoghurt cartons is printed on the aluminum foil closure. The foil has coloured images of fruit which makes the OCR potentially difficult. In the first image you can see that the last digit, a 0 is almost invisible to the camera.



The lighting setup is shown next to the image. The illuminator uses white light with the result that both the printed date *and* the picture of fruit are evenly illuminated. This makes the job of OCR much more difficult as the software has a much harder job separating out the text from the background.



This image shows the result of simply changing the colour of the illumination. All the other details of the set-up remain the same. You can see that the image of the fruit is eliminated from the scene, thus leaving the text very clearly visible. This makes the job of OCR a great deal easier and faster, saving both time and money.