



1. Color differentiation of lipsticks

The color of lipsticks should be controlled. For this purpose a color sensor type **SPECTRO-3-FIO-JR** in connection with an optical fiber type **R-S-A3.0-(3.0)-1200-67°** and an optical frontend type **KL-9-A3.0** will be used. At this juncture the distance from the front end to the surface of the lipstick is approximately 14mm, the spot size is around 3mm in diameter and the optical front end is arranged at an angle of 30° to the vertical axis. The lipsticks can be proper distinguished as shown in the screen shots.

