



### 1. Color mark detection on paper bags

Color marks on paper bags should be detected. Here, it should be taken into account, that black color marks on a white background and white color marks on a black background should be detected. For this purpose, a color sensor type **SPECTRO-3-FIO-SL** in connection with an optical through beam fiber type **D-S-A3.0-(3.0)-1200-67°** and an optical frontend type **KL-D-5°-85-POL-A3.0** is used. At this, the distance from the frontend to the color marks is approximately 12mm and the spot size at this distance is around 8mm in diameter. The color marks can be proper detected as shown in the screenshots.

