

### 1. Position monitoring of hook-and-loop fasteners

The orientation of Velcro® fasteners should be controlled. For this purpose a color sensor type **SPECTRO-3-FIO-JR** in connection with a through beam fiber type **D-S-A2.0-(2.5)-1200-67°** and a mechanical frontend type **MOUNT-A2.0-120°-12** are used. The distance of the frontend to the Velcro® strip is approximately 12mm and the **MOUNT-A2.0-120°-12** is using the forward reflection under an angle of 60° to the vertical axis. As shown in the screen shots a proper differentiation between hooks “at the bottom side or top side” is possible.

