Analysis procedure (Example IPT 2, pin 1)

1. Scaling of the pictures
2. Determination of the sides by eye (**red lines**)
3. Definition of a fixed point for all pins (**blue line**)
4. Determination of the distances between the sides and the fixed points (**green lines**)

![Image showing analysis procedure]
Comparison of two pins

Good resolution (IPT 2, pin 10)

Bad resolution (Boma 7, pin 2)
Results for the wheels
IPT 1

\[ \bar{d} = 0 \mu m, \quad \sigma_d = 13 \mu m \]

\[ \bar{d} = 0 \mu m, \quad \sigma_d = 14 \mu m \]

\[ \bar{d} = 3000 \mu m, \quad \sigma_d = 11 \mu m \]
Boma 3
Boma 6
(formerly Dortmund wheel 3)
received from Dortmund as a replacement for Boma 7
Boma 7
returned to Dortmund
Result of a mat wound with Boma 3
the outlier... not clearly visible edges due to the amount of glue