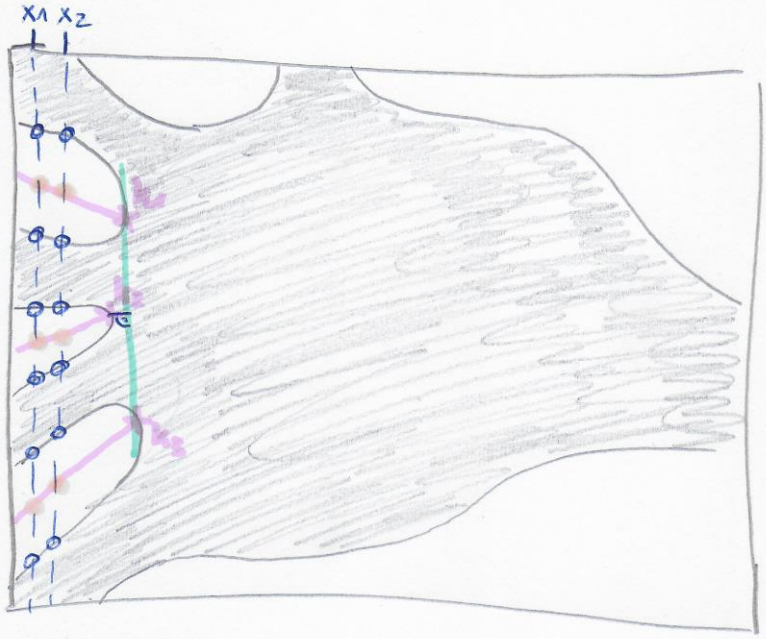
Palmprint_Alignment



1) draw the largest contour (you need to search for it)
2) Trace the boundary of the holes between the fingers
   a) define close x-values (x_1 & x_2)
   b) run along the whole height of the image and check, if x hits a contour
      → find 6 contour-hits
      ▽ the contour can be larger/thicker than 1 pixel
   c) define the middle points of the holes
   d) define straight line that connects the middle-points in each hole
   e) define u_1, u_2, u_3 → intersection points of straight lines with hole contour
   f) connect u_1 and u_3 with a line → y-axis
   g) draw a line from u_2, that hits the y-axis (90°)

g) → to hit a line perpendicular, your slope needs to be the negative inverse of the line's slope

h) line from h_2 to intersection = x-axis

i) rotate the image around the new defined coordinate system
↳ intersection = new centre