How to align the Piher sensors properly

Read this information first, prior to constructing any kit with PIHER position sensors!

Pihers, are actually potentiometers which have a possible mechanical rotation of over 360 degrees. Their electrical path however is only 240 degrees.

Therefore one Piher is not enough for our electronics and software to determine what the position of the shaft is. Therefore we use 2 Pihers, mounted in such a way that their electrical path (resistance path) is overlapping eachother, now offering a measurement path which covers 360 degrees.

To accomplish this, the Pihers are mounted on each side of the board in such a way that they can be turned 180 degrees in respect to eachother on the same axis. Now the wiper of each Piher has to be positioned in such a way that each Piher covers their own path offering a 360 degrees measuring possibility.

There is a little notch in the inner part of the Piher, indicating the position of the wiper. Both notches of a Piher pair must point into the same direction (literally) to obtain this.

Summarizing: holding the board facing towards you with one side, the little notch must point (for example) to the left. The notch on the other side (without turning the board to the other side) must also point left.

Now the position is OK.