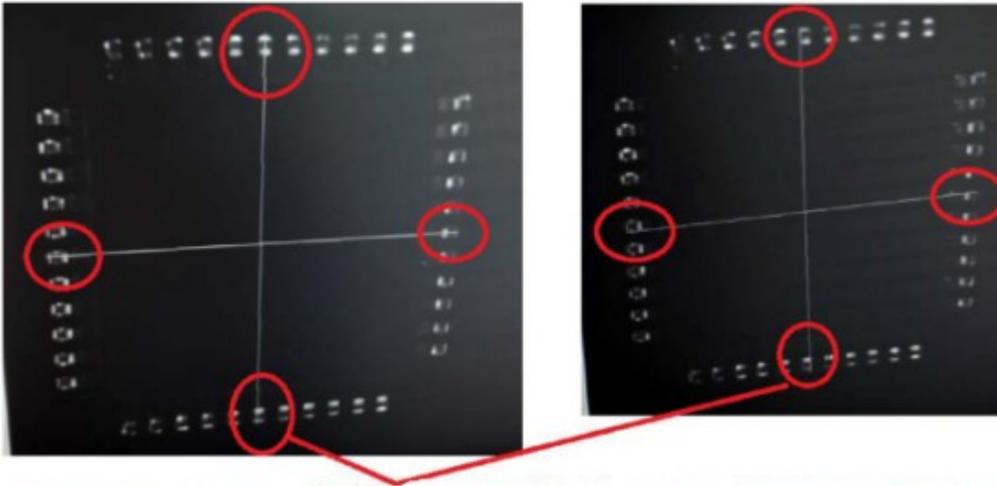


# Neoden4 Update for recognition problems

## 1. Main problem

1.1 For big size component, fail to detect or not detect correctly, the bellowing picture shows some instances:

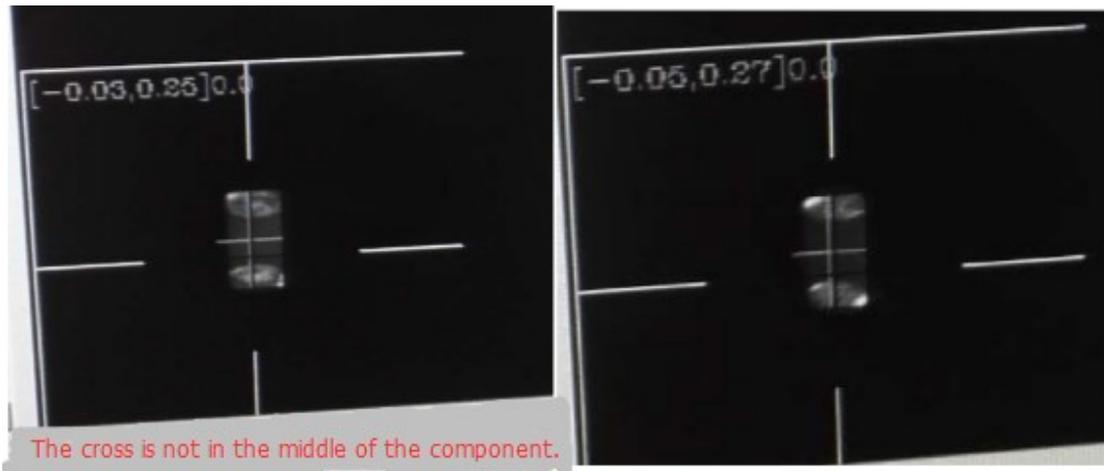


The detection is different from time to time, can not realize accurate mounting for big-size components even after the coordination is adjusted.



The detection is totally failed, sometimes the last component is identified but the latter one can not be captured at all. And adjusting the camera lights is also not helpful.

1.2 For small size component, sometimes the deviation happens.



1.3 Environment has a big effect to mounting process, especially intense sunlight which will trigger the recognition issue.

1.4 A little bit of abrasion or solder paste on the needle will cause the recognition issue.

## 2. The following version has the recognition problem:

2017-04-06 NeoDen4(v4.1.2 B2 Beta Version)

2017-04-01 NeoDen4(v4.1.2 B1 BetaVersion)

2017-03-27 NeoDen4(v4.1.2 B0 Beta Version)

2017-03-25 NeoDen4(v4.1.1 B9 Beta Version)

2017-03-22 NeoDen4(v4.1.1 B8 Beta Version)

2017-03-21 NeoDen4(v4.1.1 B7 Beta Version)

2017-03-20 NeoDen4(v4.1.1 B6 Beta Version)

2017-03-11 NeoDen4(v4.1.1 B5 Beta Version)

2017-03-04 NeoDen4(v4.1.1 B4 Beta Version)

2017-03-01 NeoDen4(v4.1.1 B3 Beta Version)

2017-02-20 NeoDen4(v4.1.1 B2 Beta Version)

2017-02-09 NeoDen4(v4.1.1 B1 Beta Version)

2017-01-14 NeoDen4(v4.1.1 B0 Beta Version)

2017-01-04 NeoDen4(v4.1.0 B4 Beta Version)

2016-12-28 NeoDen4(v4.1.0 B2 Beta Version)

2016-11-28 NeoDen4(v4.0.4 B6 Beta Version)

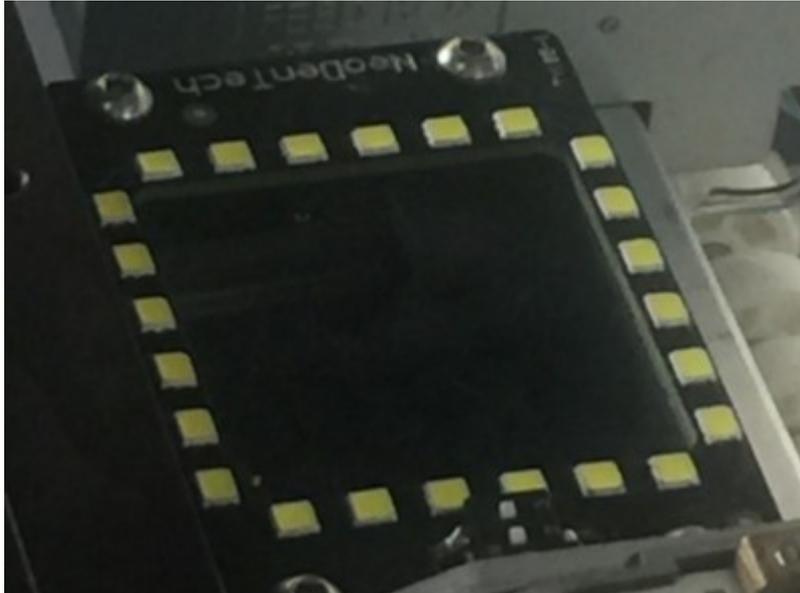
2016-11-23 NeoDen4(v4.0.4 B5 Beta Version)

2016-10-22 NeoDen4(v4.0.4 B4 Beta Version)

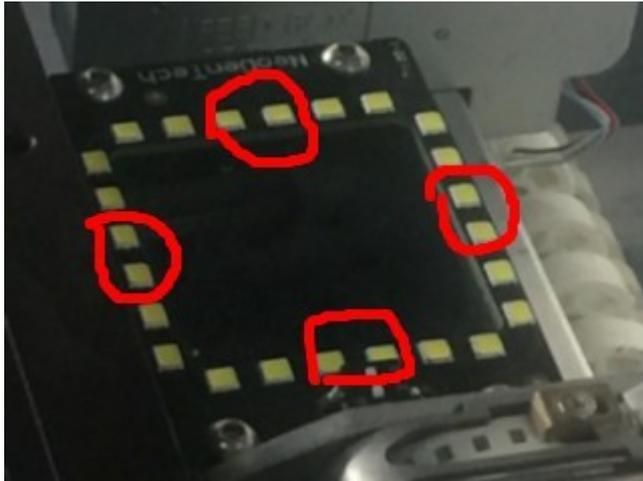
2016-09-08 NeoDen4(v4.0.4 B3 Beta Version)

**3. Instruction on how to set the parameter and further strength the reliability for recognition.**

3.1 Set the up-looking camera brightness to 100 and jointly brightness to 50-75 when all leds are on(the value is based on average and only for reference, for each machine it should be confirmed by testing to achieve best result.)



3.2 Set the up-looking camera brightness to 200 and jointly brightness to 150 when 8 leds(shown as the bellowing picture) are on(the value is based on average and only for reference, for each machine it should be confirmed by testing to achieve best result.)



	Placement speed	Vibration feeder frequency	Vibration feeder strength	Upward photograph angle	Upward Photograph brightness	Jointly brightness
parameter1	100	100	30	0.0	200	150

3.3 The following measures are recommended to take if possible:

Use porcelain nozzle;

Use adjustable led board.

**4. The steps for the software update and the calibration after the software update is included in two separated files, plz refer to them for details.**