



3D Disto Software
for Windows®

Leica 3D Disto Tutorial «Projector» in stair case



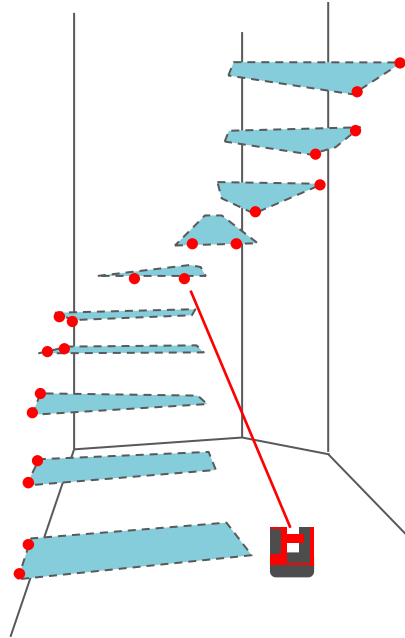
- when it has to be **right**



Projector in stair case

Workflow description

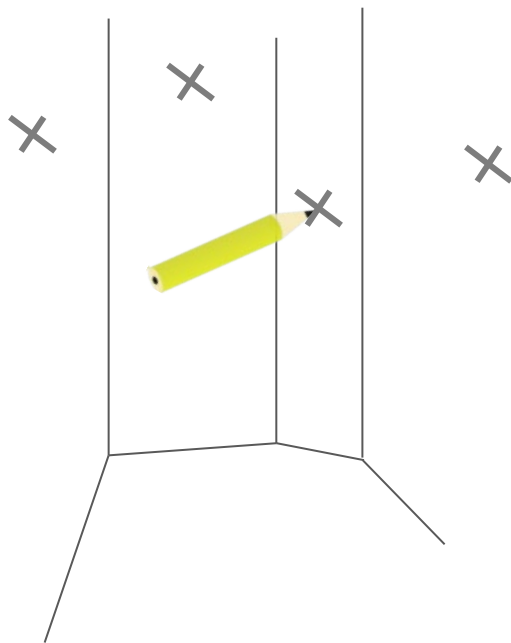
Measurement → Stair Design → Projection of fixing points



Projector in stair case

Preparing the measurement

1

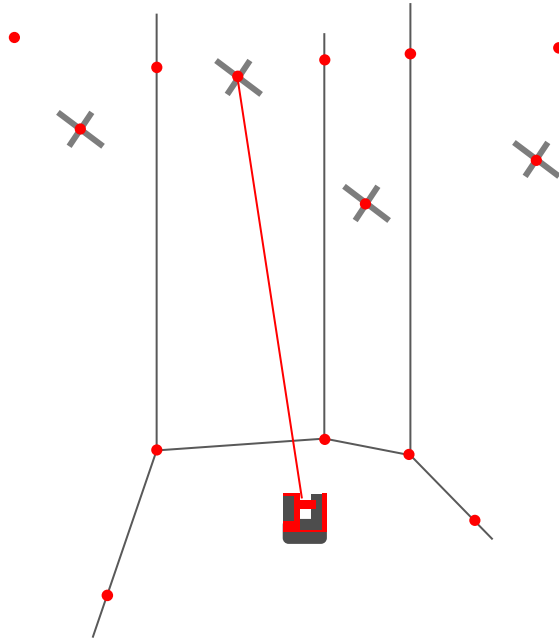


- mark 1 point on each wall of the stair case

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Measurement of existing geometry

2



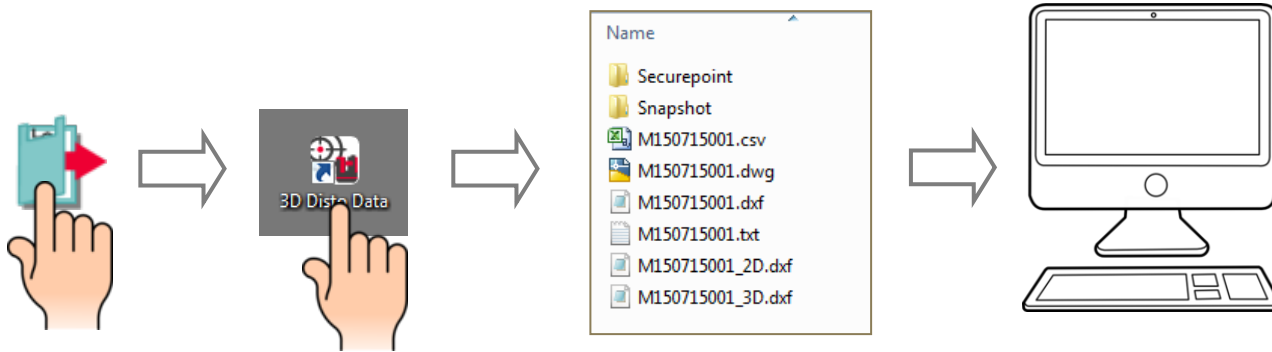
- measure all corners, walls and details of interest
- measure all your marks

Projector in stair case

Export to CAD

3

- Save the data
- Start „File Manager“, select file, press „export“ key
- Import to your CAD system.

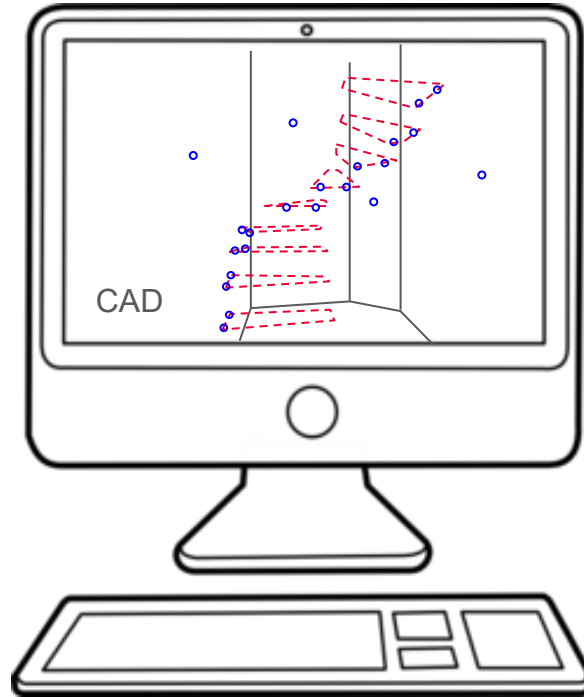


Projector in stair case

CAD works

4

- Design the stair and the fixing points in CAD



- when it has to be **right**

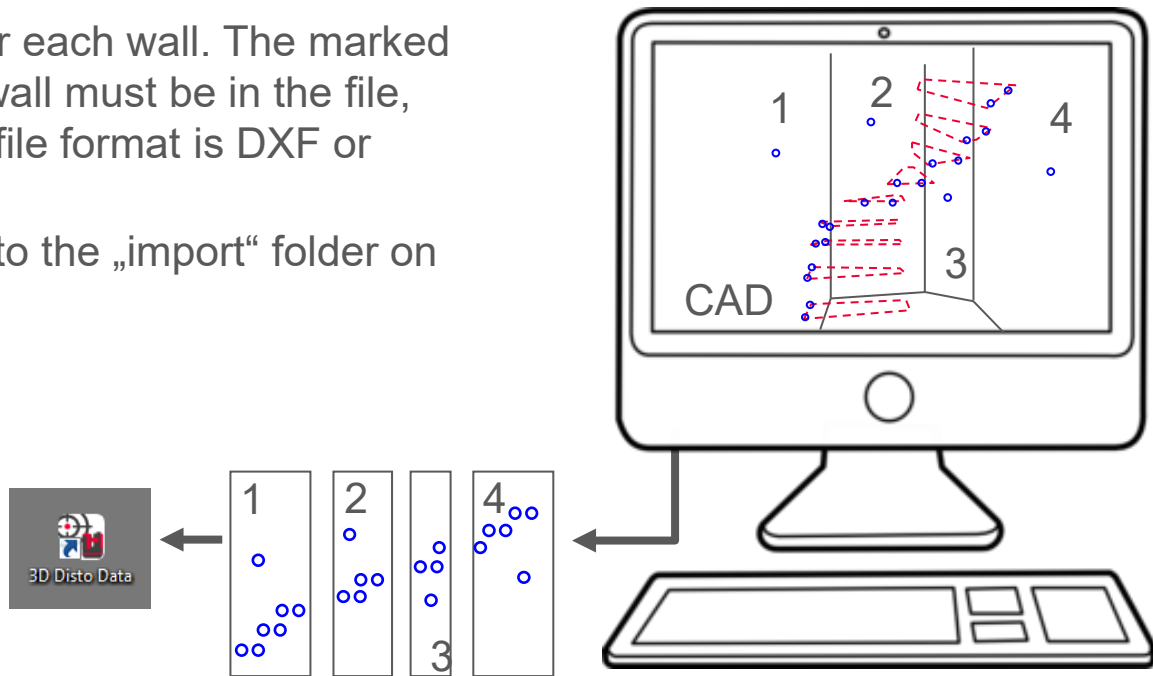
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Export design data

5

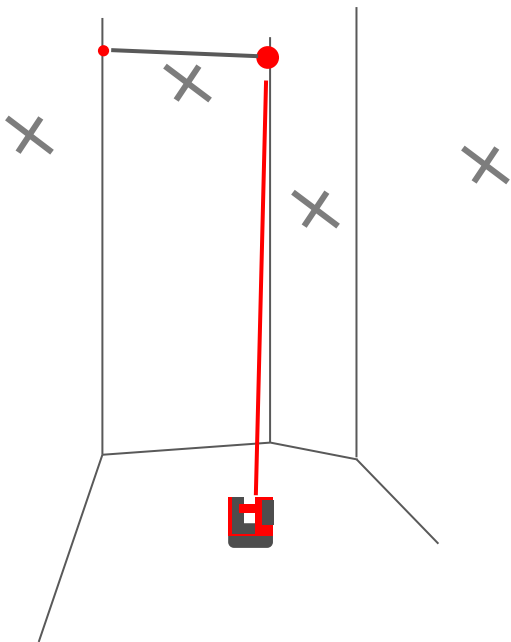
- Export 1 file for each wall. The marked point of each wall must be in the file, too. Accepted file format is DXF or CSV
- Copy the files to the „import“ folder on your desktop



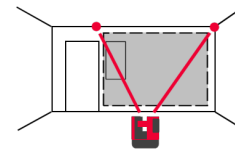
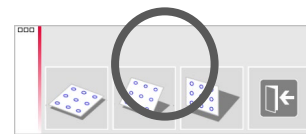
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Choose working area

6



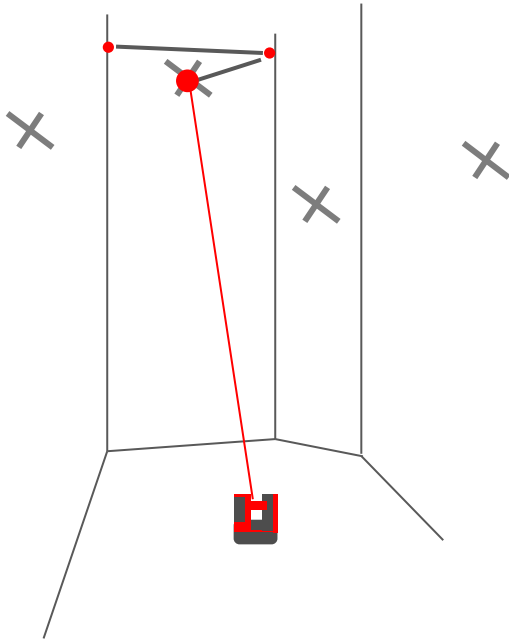
- Start Projector application
- select option ,vertical'
- assistant prompts how to proceed
- measure 2 points on the wall
- press checkmark key



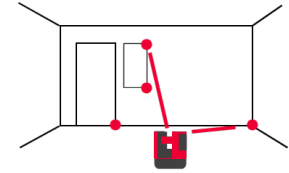
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Measure the mark

7



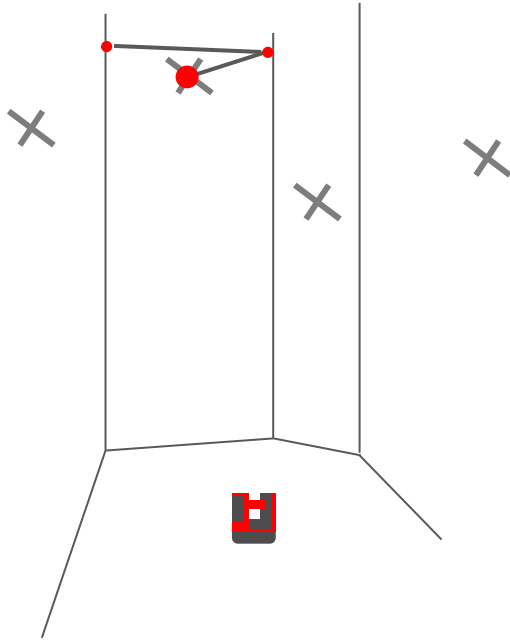
- assistant prompts how to proceed
- now measure the mark
- Press checkmark



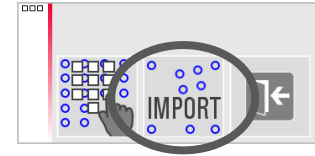
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Import design data

8



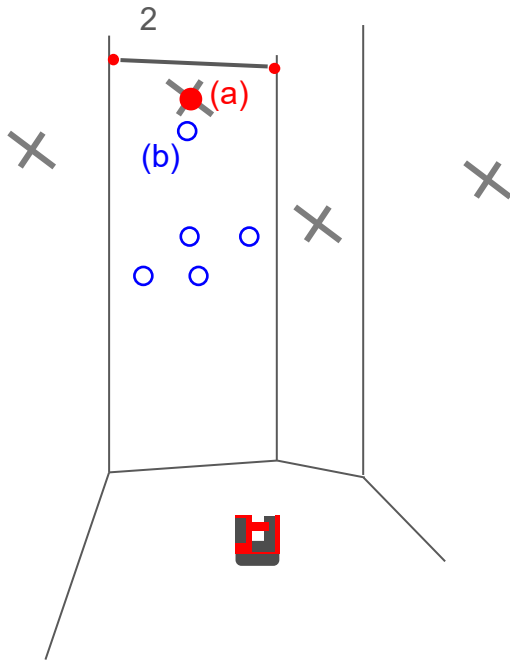
- Choose option IMPORT
- Select the design file that corresponds to the wall (use viewer to check)
- Press checkmark



Projector in stair case

Adjust design points on the screen (1)

9



- imported data appears blue on the screen and needs to be moved to right position now:

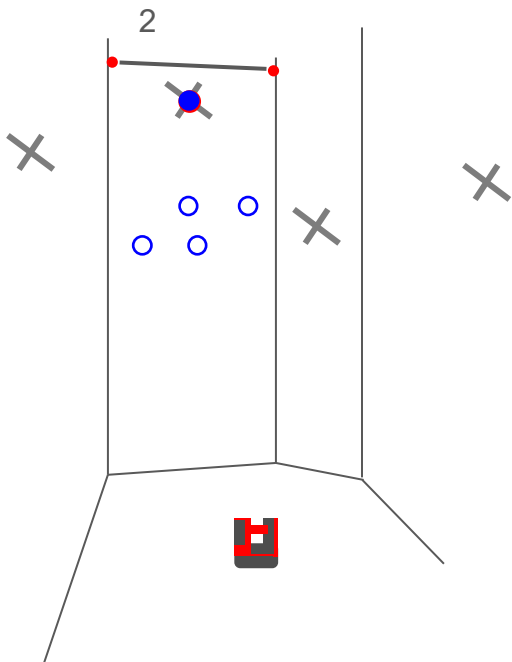
ON SCREEN:

- tip on red point of the measured mark (a)
 - tip on the corresponding blue design point (b)
- (both points must be highlighted)

Projector in stair case

Adjust design points on the screen (2)

9



ON SCREEN:

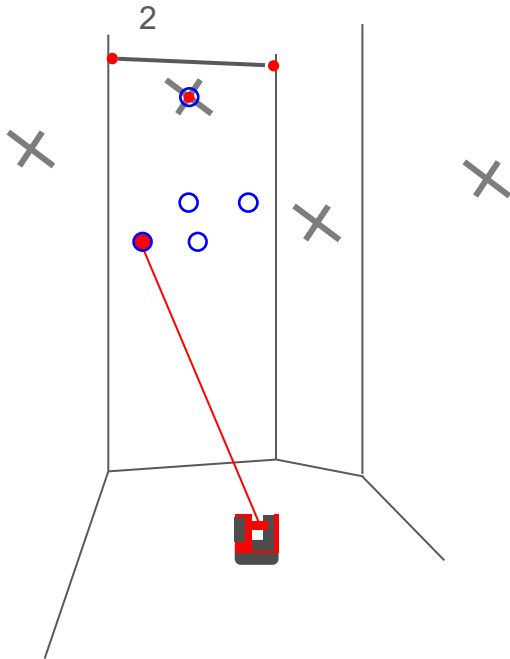
- press COVER key
- design points move to the correct position
- press checkmark



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Projection of design points

10



ON SCREEN:

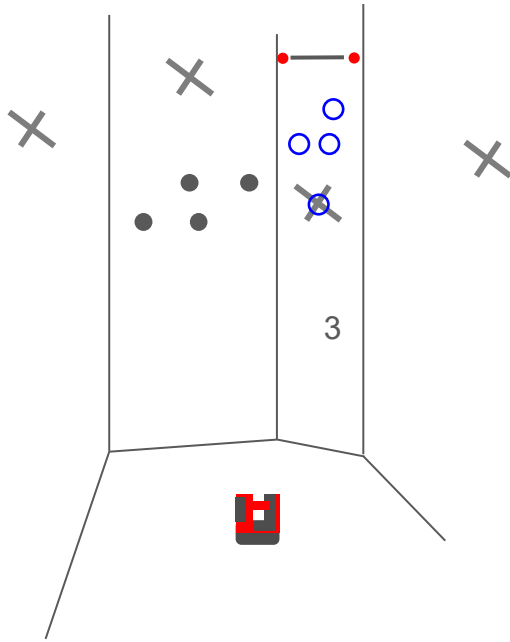
- tip/select a blue design point or use arrow keys for selection
- press DIST → laser beam indicates position precisely. Point is found if the laser blinks.



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Projection of design points

11



Restart PROJECTOR application and repeat workflow on the other walls

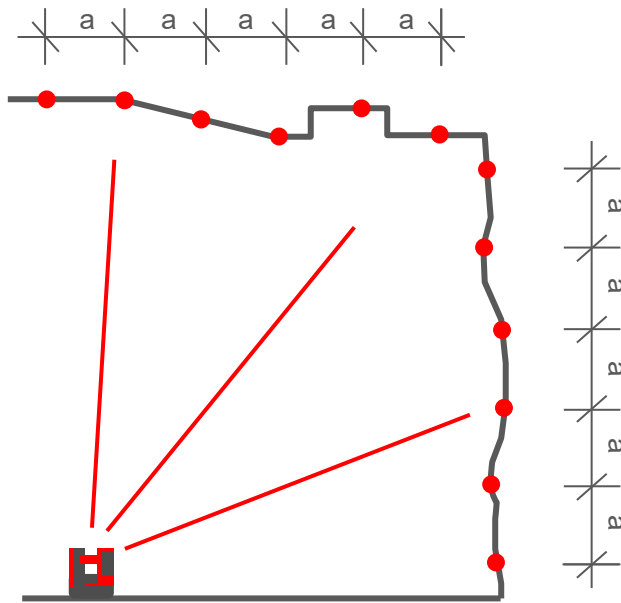
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Additional advices

- Accuracy on uneven surfaces
- How to increase security and accuracy
- Workflow on curved or polygonal surfaces

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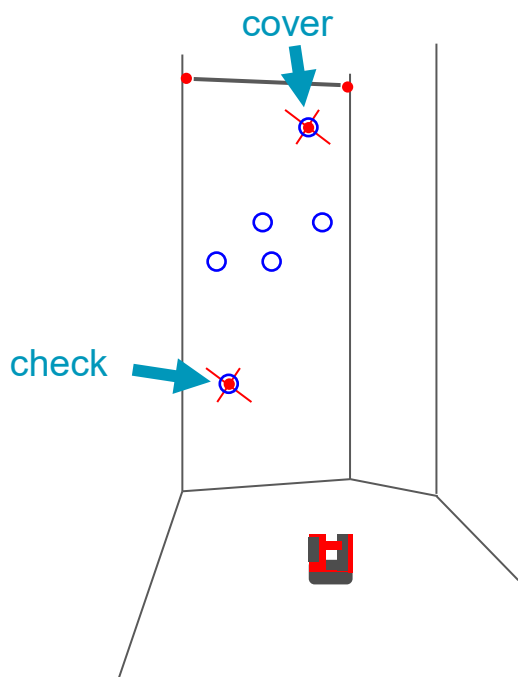
Accuracy on uneven surfaces



Uneven surfaces are no problem.
Projector indicates all points precisely and error-free!

Projector in stair case

Increase security and accuracy with more marked points



If you mark two points on each wall you have a control check for the correct position of the design points:

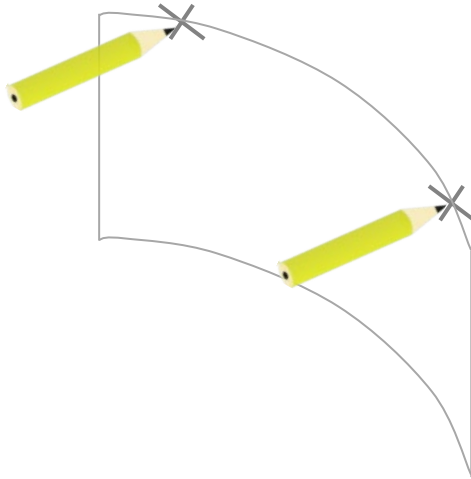
- cover measured mark and design point as described before
- then select the second pair of points and check the indicated distance → it should be „0“
- continue



Projector in stair case

Workflow on curved surfaces

1

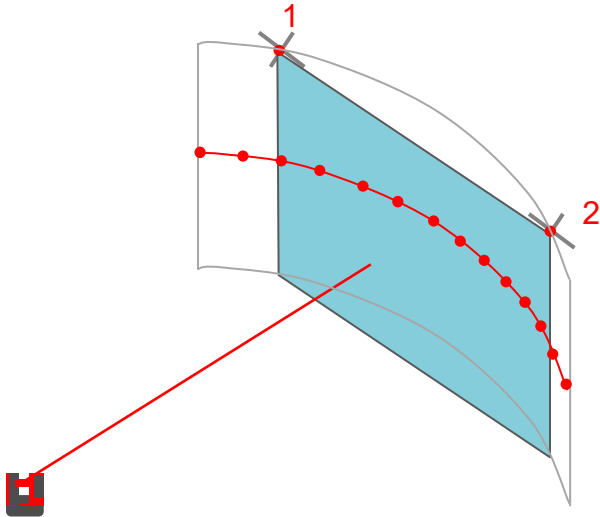


Mark 2 points approximately on the same level on the working area

Projector in stair case

Workflow on curved surfaces

2



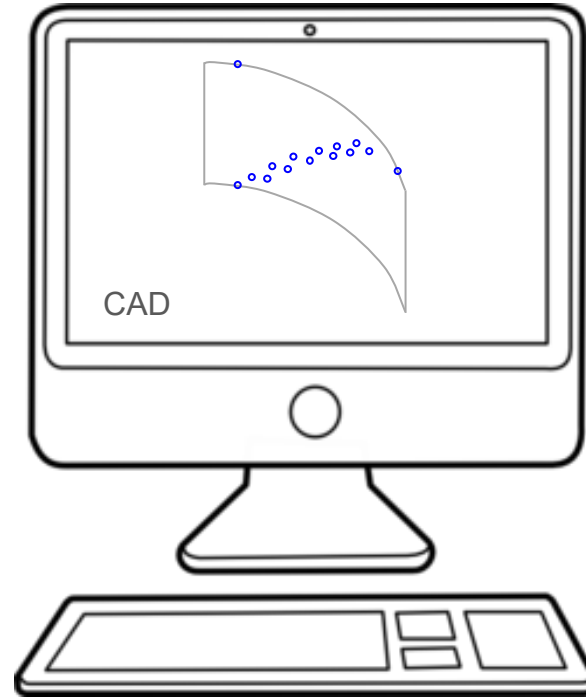
- Measure all you need for the stairs, scan, etc.....
- Measure both marks
- Save and export the data

Projector in stair case

Workflow on curved surfaces

4

- Design the stair and the fixing points in CAD



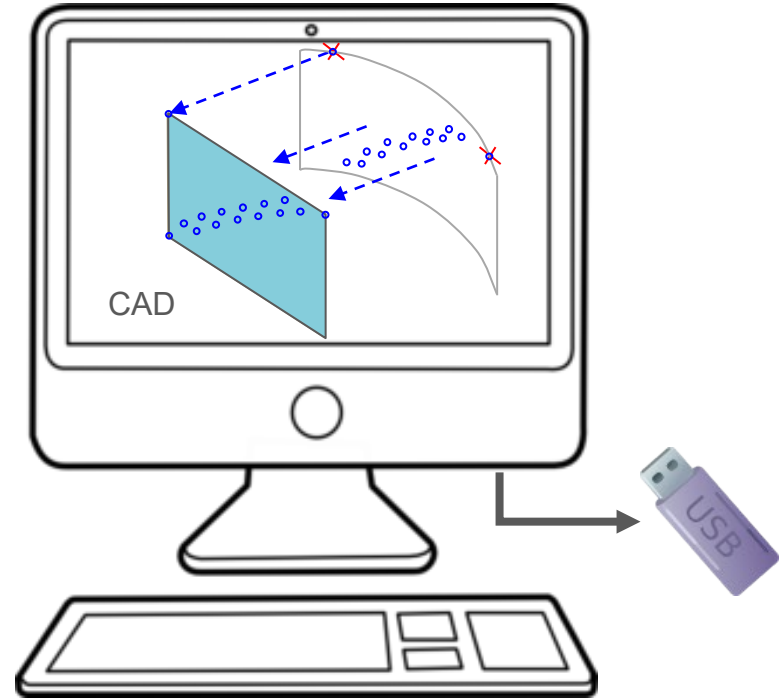
- when it has to be **right**

Projector in stair case

Workflow on curved surfaces

4

- Transform all points onto a vertical plane through both marks
- That distorts the geometry but points will be at correct position if projected on the bulge.
- Export data to
- DXF file (drawing) or CSV file (chart).



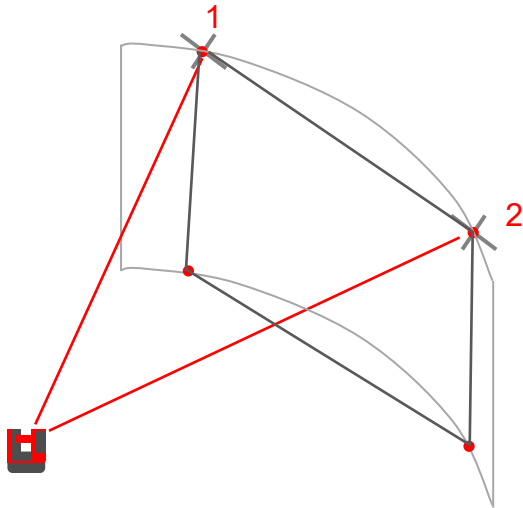
- when it has to be **right**

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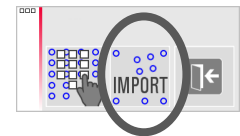
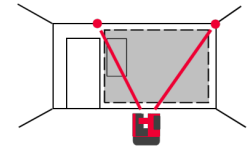
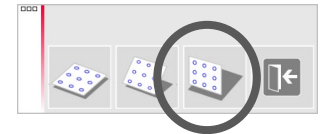
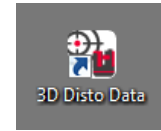
Projector in stair case

Workflow on curved surfaces

5



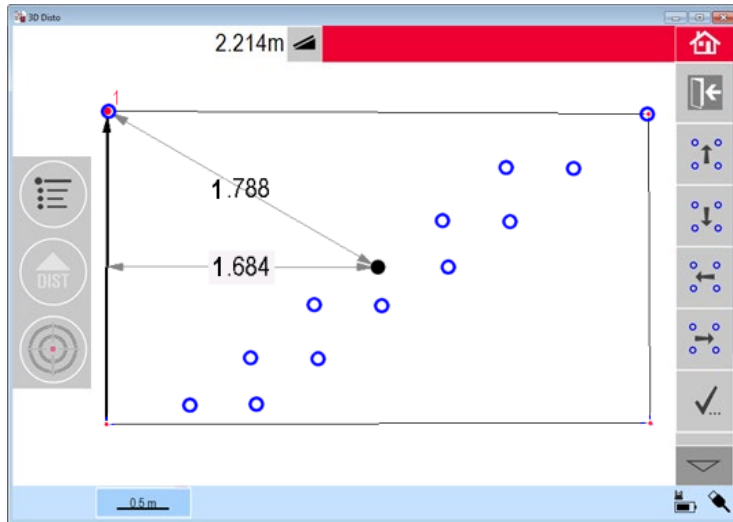
- Copy the data to the «import» folder on your desktop
- Start Projector ,vertical'
- Measure the existing marks first, further points if necessary
- Import the design file



Projector in stair case

Workflow on curved surfaces

6



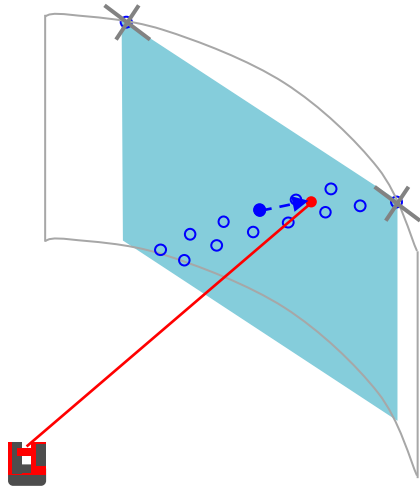
- Cover the corner points and measured points (use COVER key)
- Check correct position (click on points and lines → dimensions appear)
- Press checkmark if ok



Projector in stair case

Workflow on curved surfaces

7



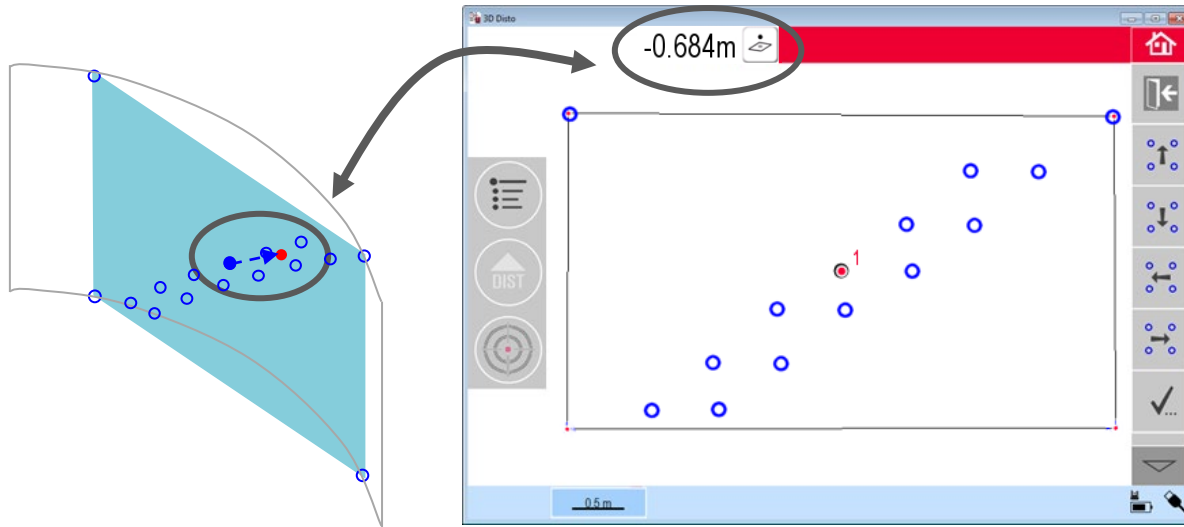
Set out like usual. Points are projected to the correct position on the curved surface.

Projector in stair case

Workflow on curved surfaces

8

After each projection the distance to the plane is indicated.



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