

How to use AR Straightness Evaluation

This application requires the Google Chrome browser and a webcam connected to the computer.

Click on "Go to the Application" to get access to the application. Press the 'Allow' button to use the webcam.

Three webcam images will appear: one black and white, and two in colour, one smaller and another larger.

Place the printed marker under the webcam field of view avoiding any type of obstruction.

Use the horizontal slider "Threshold" at the top of the page to adjust the lighting so that the marker and its white frame are displayed as shown in the figure below. The white frame around the marker needs to be completely visible and the user must avoid hiding it even partially when handling it.



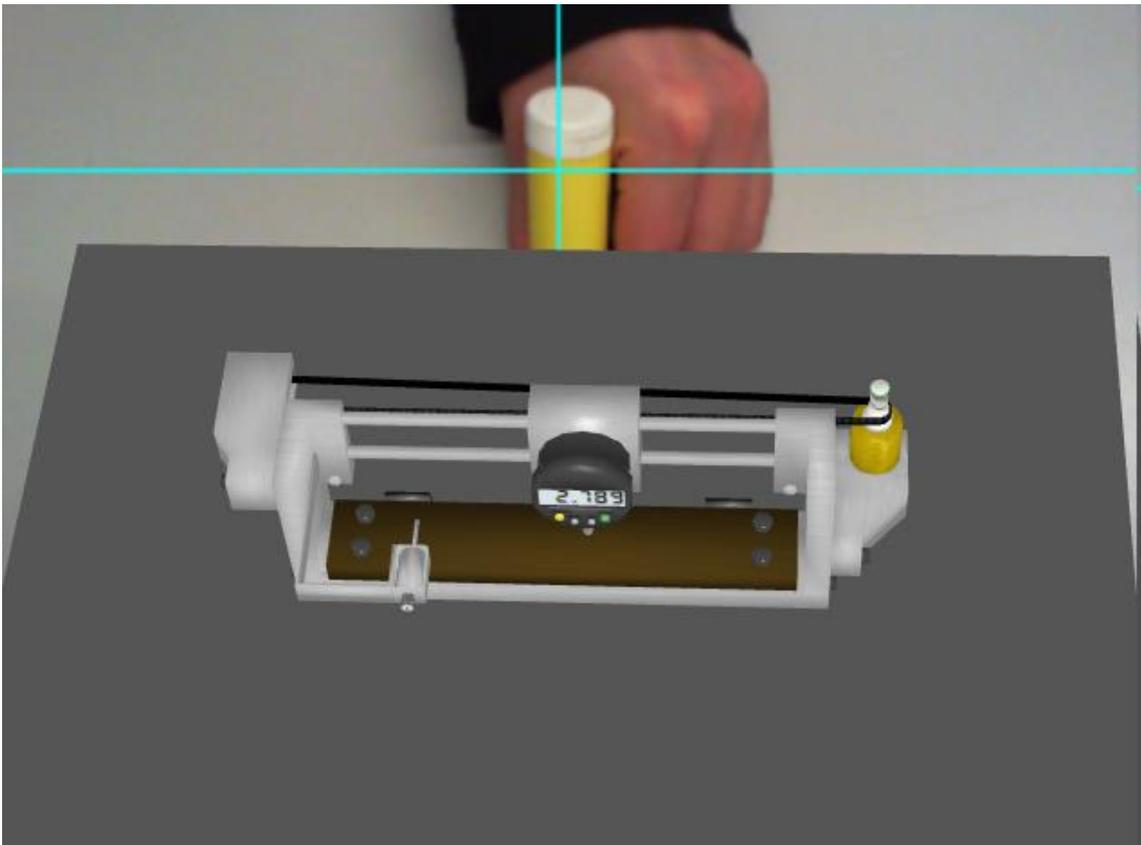
The 3D virtual model will appear on top of the marker.

The two checkboxes "canvasRaster" and "debug" should then be unchecked in order to hide the two small images, which will make the VR model increase in size.

The button "Change Material" allows to access different specimens to be tested and to be measured during the AR experimental process.

Pressing the "Start Animation" button the animation of the measurement process is started.

Pressing the "Start Tracking Color" button activates the control of a measurement cursor position. When a yellow colour object (e.g. UHU glue stick) is detected, two blue lines appear meaning that it is being detected. If the yellow object moves horizontally through the image, the measurement cursor (blue) will follow this movement.



By handling the marker inside the camera field of view, the 3D model can be explored in different angles.

Finally, if the user email address is inserted in the "Email Values" field, a file with the values measured during the test will be sent (these values are from a test obtained with a real setup whose design was used to build this 3D model).