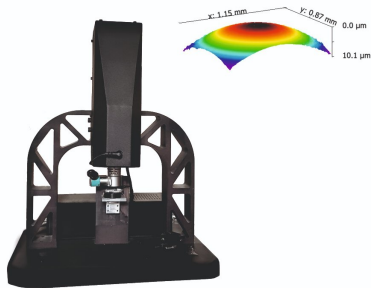


### White light Interferometer(MOA-ZA)

Optical surface measurement (Interferometer)  
Thickness measurement of the deposited layers.  
Roughness, analysis of roughness and topography of objects, 5nm accuracy

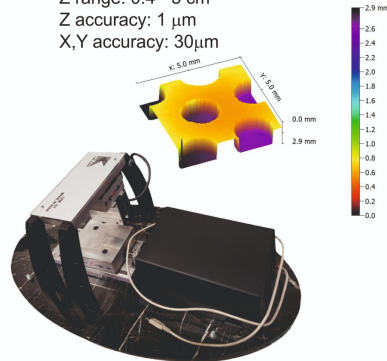
Scan window: 1.1 mm to 3.5 mm  
Measurement accuracy: 5 nm Z, 2.1µm X,Y  
Z Range: 40 nm to 8 mm



### Laser Profilometer(LPM\_D1)

Roughness measurement of surfaces and presentation of surface topography up to accuracy of 1µm

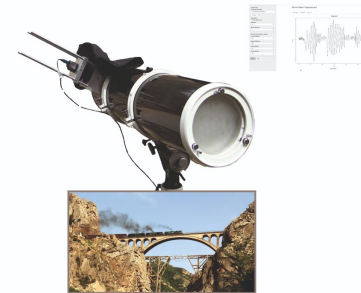
X, Y scan window: 8 x 8 cm  
Z range: 0.4 - 5 cm  
Z accuracy: 1 µm  
X,Y accuracy: 30µm



### Moire System (MDV-FR)

Displacement & Vibration measurement using the Moire technique:(MDV-FR)  
Bridge Health Monitoring

Measurement work distance: 1 m to 150 m  
Measurement accuracy: 20µm  
Frequency range: 0.01 Hz to 350 Hz  
Displacement range: 40 µm to 50 cm



### Lidar Scanner

interior scan, inside the tunnel, dimension measurement of large structures, reconstruction of historical buildings

Ability to measure up to 60 m  
Angular accuracy of 0.5 degree  
Measurement accuracy of 1 cm  
Measurement speed of 500 data per second



1 Å

1nm

1 µm

10 µm

100 µm

1mm

1cm

10<sup>-10</sup>

10<sup>-9</sup>

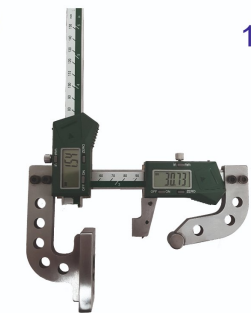
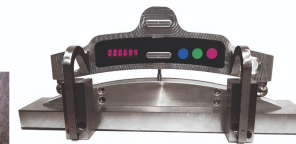
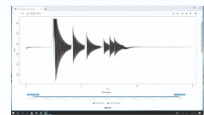
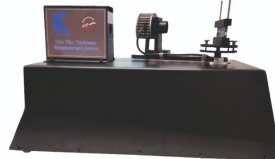
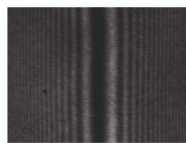
10<sup>-6</sup>

10<sup>-5</sup>

10<sup>-4</sup>

10<sup>-3</sup>

10<sup>-2</sup>



### Thin Film Thickness Measurement Device (FDP-D1)

Measuring the thickness of the deposited layers on layers on the surfaces with an accuracy of 2 nm, Using Fresnel diffraction from phase steps

Measurement accuracy: 2nm or 5%  
Minimum thickness: 20 nm  
Maximum thickness: 5 µm

### Laser Vibration System (LTDV-MOR)

Laser vibration and displacement measurement device. measurement of vibration and displacement from a distance of several centimeters

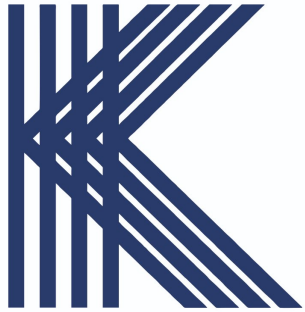
Measurement distance: 4mm to 100mm  
Measurement accuracy: 1µm  
Frequency range: 0.01 Hz to 700 Hz

### Diameter Gauge

Wheel Diameter Measuring Gauge  
measurement range 700 - 1300 mm  
measurement accuracy 0.5 mm

### Wheel Wear Gauge

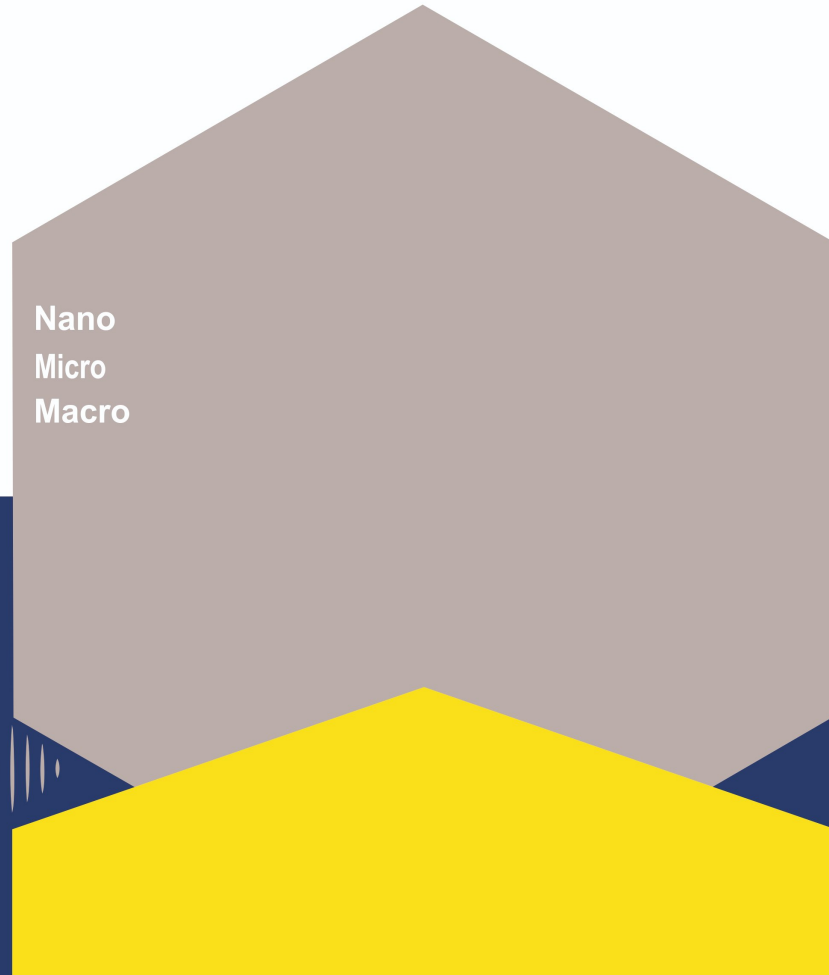
measurement range 10 - 30 mm  
measurement accuracy 0.01 mm



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Thickness  
3d model  
Displacement  
topography  
Vibration control

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Fanavari Kahroba Company started its activities in 2011 with manufacturing EMC Camera device and began to be a member of science and technology park of University of Tehran since 2012. Later on with devising thin film thickness measurement device and far distance Moiré measurement device, its official activities in precis measurement industry begun. Its optical surface topography measurement devices was introduced in 2014. Thanks to first ranked graduate elites, Kahroba's company has devised several products with no international competitors. In addition, its products have the advantage of consumers support, precision calibration and being financially affordable for local manufactures. Among the highest valued policies of Kahroba's company, science management can be mentions. Its most precious investment is expert graduate researchers. Reaching high shares of optical based measurement devices in the international market is one of the perspectives of Kahroba's company. This aim not only does increase national economical growth, investment return and export, but also it does help to improve scientific foundation of the country and creating more job opportunities. In order to achieve this goal, Kahroba's mission is devising high precise optical based measurement devices without international competitors based on national scientific experts. Academic customers, research projects, industrial customers, International exhibitions.

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