



3D dental scanner in use



3D VISION AND MODELING MEASURING THE WORLD

GENERAL

The stereo-camera based 3D sensor technology developed by AIT as well as the associated methods and algorithms for precise 3D measurement and 3D modelling are already successfully being used in a wide range of applications.

AIT's 3D sensor technology opens up a particularly broad field of applications in precise 3D object measurement. The stereo-camera based measurement principle is ideally suited for 3D measurement and 3D modeling of objects of any volume or geometry. The use of an additional light pattern projector also allows the precise measurement of smooth object surfaces. The measuring accuracy required for the individual application can be adjusted and optimised using a specially adapted stereo camera setup. AIT has already successfully developed and implemented reliable stereo-camera based 3D measurement systems for applications including industrial automation, precise 3D measurement and modeling of workpieces and assemblies, 3D inspection, quality assurance and production process control.

3D DENTAL SCANNER

AIT and a.tron3d have together developed a miniaturised, ergonomically designed handheld 3D dental scanner based on stereo-camera technology for the dental and orthodontics industry. The new dental scanner can be used to replace the unpleasant process of taking dental impressions. The image data recorded by the 3D dental scanner is transmitted via USB to a standard notebook, for example, where it can then be processed in real time to provide the dentist with relevant information on the screen. This immediate generation of 3D denture data also results in time savings and improvements in cost efficiency in the subsequent process to produce dental prostheses such as crowns, inlays and bridges as well as in the planning and implementation of orthodontic treatments.

