

ABSTRACT

An image reconstruction method and apparatus, and a device. The image reconstruction method comprises: when a multi-line laser device projects N beams of line-structured light to an object under test, acquiring a first original image which is collected by a first camera, and a second original image which is collected by a second camera (201); determining a first target image corresponding to the first original image and a second target image corresponding to the second original image (202); determining a first light stripe center line corresponding to each first light stripe area in the first target image, and a second light stripe center line corresponding to each second light stripe area in the second target image (203); determining a plurality of key point pairs on the basis of the first light strip center lines and the second light strip center lines, wherein each key point pair comprises a first pixel point in the first light stripe center line and a second pixel point in the second light stripe center line (204); determining three-dimensional points on the basis of the key point pairs and a camera calibration parameter (205); and generating a three-dimensional reconstructed image on the basis of the three-dimensional points corresponding to the plurality of key point pairs (206).

[Fig. 2]