

# 3차원 물체의 위치 및 자세 측정 방법

## (Determination of Position and Orientation of 3-D Object)

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### [Abstract]

This paper describes a method of determining the position and orientation of a polyhedron together with its face information. To find transformation matrix transforming CAD-model into object in scene, it is necessary to determine a corner-point of the CAD-model to which each vertex of image boundary is matched. To do this, we use edge-direction and edge-length at each vertex of the image boundary and its 3-D coordinate is determined by using stereo vision. This result is fed to a robot so that it can grasp a object in arbitrary position and orientation and can place the object at a designated position and orientation for automatic assembly.