

View Planning and 3D Map Building by a Mobile Robot Equipped with Two Range Sensors

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Abstract—In this paper, we propose a view planning method that plans view points for efficient 3D map building by a mobile robot equipped with two LRFs (laser range finders). The robot searches for effective view points by predicting new measurement domains in the next view points, and then measures distances to obstacles around the robot with LRFs. The 3D map is generated by integrating range information obtained from multiple measurements. Experimental results show the effectiveness of the proposed method.

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