

Supporting information for

LILO: Light Detection and Ranging, Inertial and Leg Odometry Combined Simultaneous Localization and Mapping Based on Kalman Filter for Legged Robots

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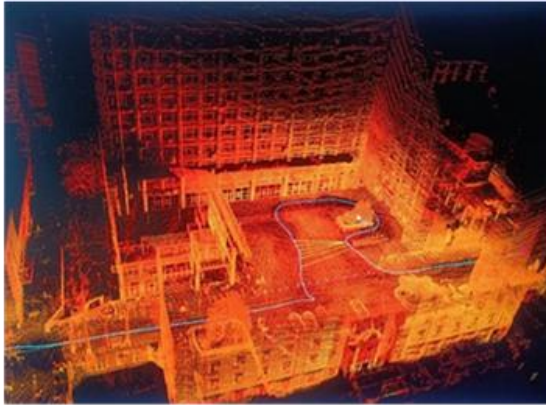
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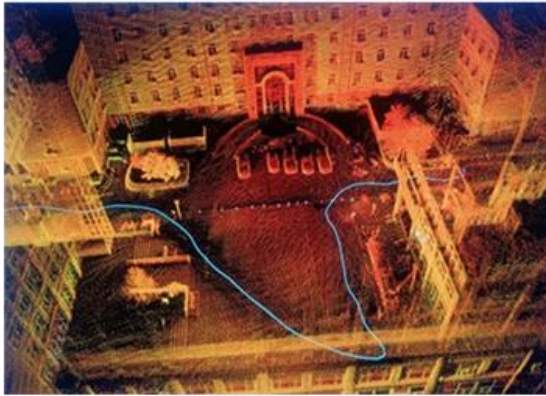
DOI: <https://dx.doi.org/10.30919/es1883>



(a) Front view mapping of the Mechanical Building.



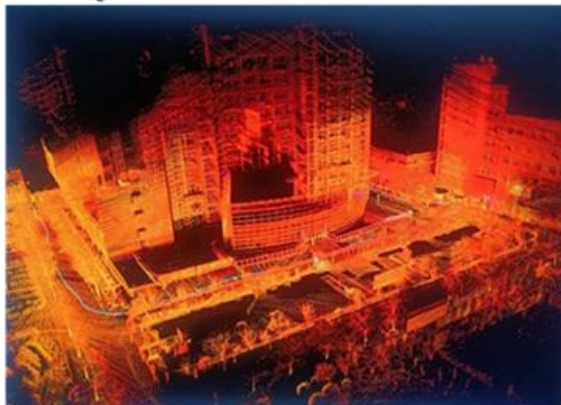
(b) Actual front view of the Mechanical Building.



(c) Front view mapping of the Civil Engineering Building.



(d) Actual front view of the Civil Engineering Building.



(e) Rear view mapping of the Mechanical Building.



(f) Actual rear view of the Mechanical Building.

Fig. S1: Comparison of maps reconstructed with the fusion algorithm and real building views.

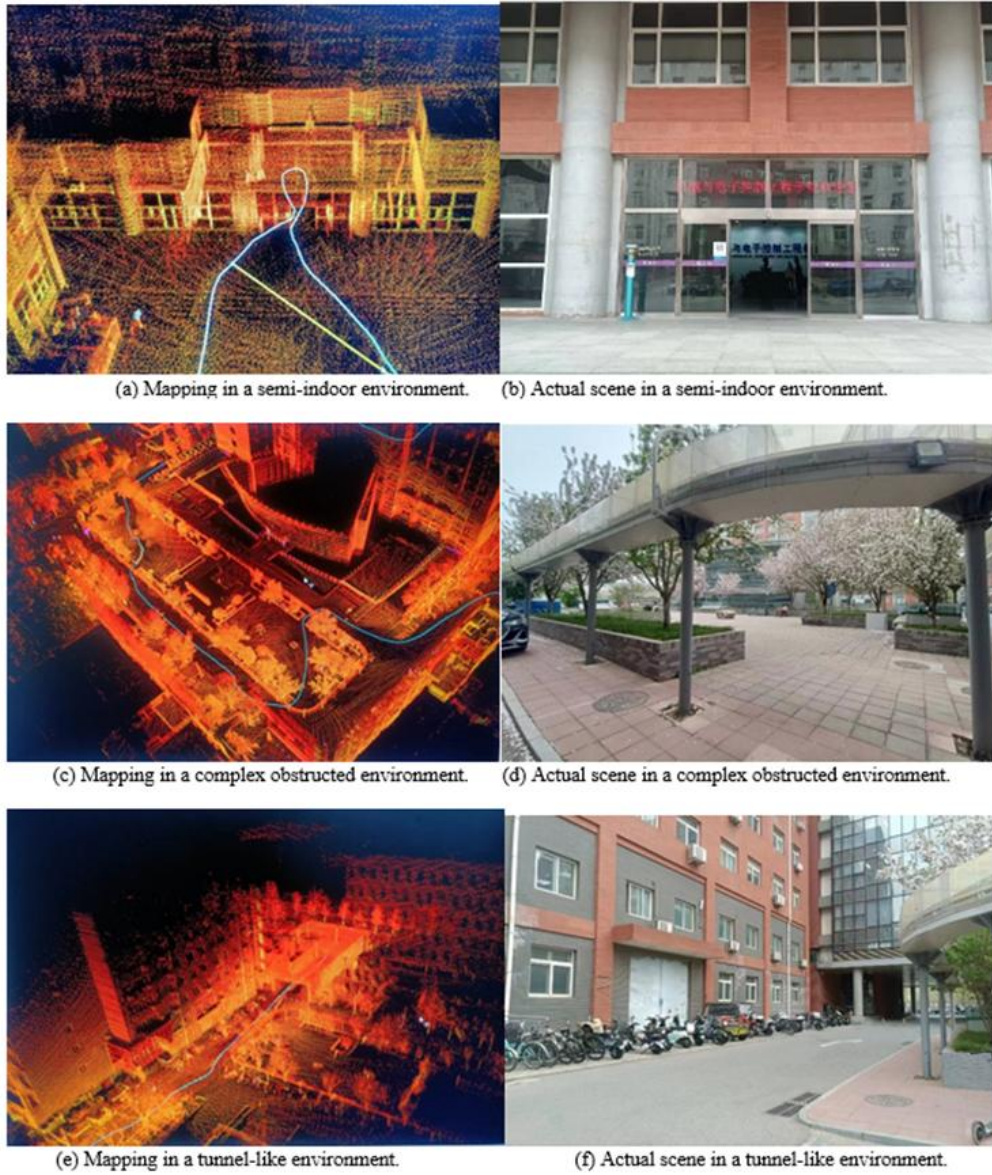


Fig. S2: Comparison of maps and real environments under different terrain conditions.

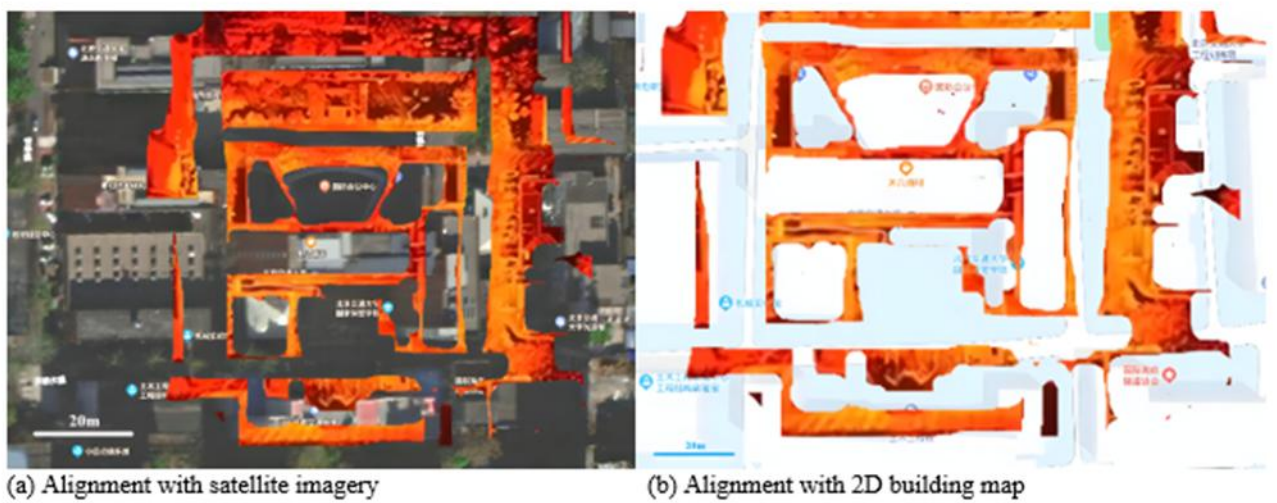


Fig. S3: Validation of point cloud maps against real-world references.

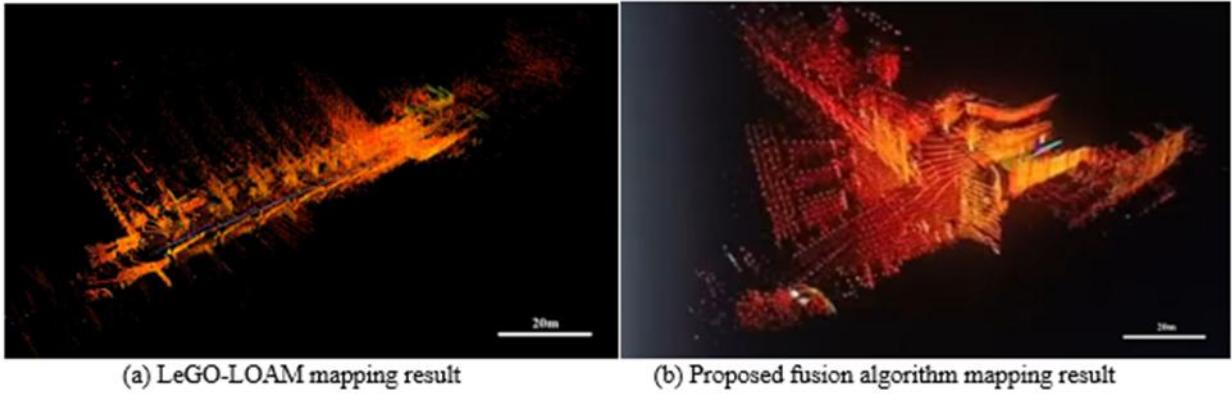


Fig. S4: Comparison between LeGO-LOAM and the proposed fusion algorithm.

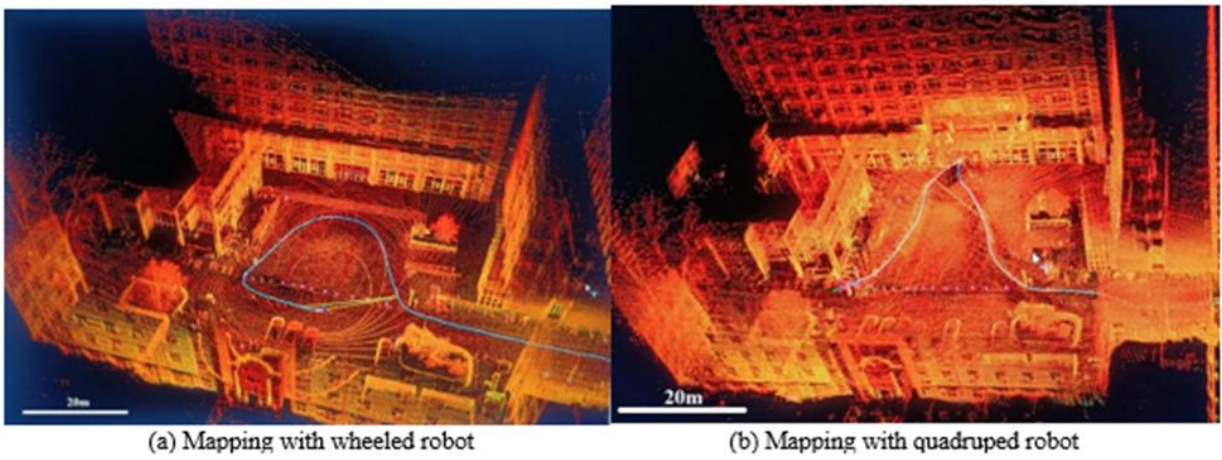


Fig. S5: Comparison of mapping results between wheeled and quadruped platforms.



Fig. S6: Measurement locations selected for quantitative evaluation.

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