Comments and Corrections

Erratum to “Embedded Visual SLAM: Applications for Low-Cost Consumer Robots”

In the “Visual Compass” section of the original article [1], Figure 5 was incorrectly published because the authors made a mistake in calculating the line orientation. It is correctly illustrated here.

Because of the same error as Figure 5 in the original paper [1], the last sentence (p. 88) in the “Visual Compass” section was also incorrectly published and is correctly written as follows:

Using these thresholds, the two visual compass orientations obtained from the images shown in Figure 3 were 1.06° and −32.86°, respectively.

In the “Processing Speed on an Embedded Vision Board” section of the original article [1], the second phrase (p. 93) needed to be clarified more because there were inappropriate sentences. It is correctly written as follows:

When the zigzag motion-based navigation was used to build a map, there were submaps with a few poses that could not be used to obtain a loop closure constraint. Especially, the submaps with a few poses (which have continuity with the time) merged into a single submap to reduce the number of unnecessary submaps, and they were disregarded in representing the whole map. This scheme did not influence almost the map accuracy in the experiments.

Figure 14(a) in the original article [1] was incorrect because the authors made a mistake in drawing the robot trajectory with red. The robot trajectory must be illustrated by connected lines. It is correctly illustrated here.

Reference

Figure 5. An orientation histogram for Image 2. (a) −44° ≤ θ ≤ 40°. (b) 60° ≤ θ ≤ 134°.

Figure 14. A large-scale mapping result. (a) The odometry map.