CORRECTION



# Correction to: Visiting pebbles on rectangular grids: coordinating multiple robots in mobile fulfilment systems

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#### **Correction to:**

#### Intelligent Service Robotics volume 14, pp. 79–97 (2021) https://doi.org/10.1007/s11370-021-00350-1

In the original publication, some information is incorrect and is corrected in this article. (Page numbers are indicated as page number in published paper.)

Title page:

The order of the authors is incorrect. CF van Eeden is the first author.

The following statement mentioning the original work on which this paper is based should be added:

"This work presents a more concise treatment of the main contributions from [39] under the same title."

[39] van Eeden CF (2017), Visiting pebbles on rectangular grids: coordinating multiple robots in mobile fulfilment systems. Master's thesis, University of Miyazaki

Corrections to the text:

1. Introduction:

1. Correction of language on point one of the requirements (p.80): "Collisions are not allowed."

2.3 Adaptive Highways on a Grid (p.81):

1. The section heading needs addition of the word "a": "Adaptive Highways on a Grid."

2. Error in wording: Change of word "trials" to "efforts".

4 Series Visitors' Algorithm (p.82).

1. First sentence second paragraph. Add word "with", replace "our" with "the": "To assist with the understanding of the series visitors' algorithm...".

The original article can be found online at https://doi.org/10.1007/s11370-021-00350-1.

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<sup>1</sup> University of Miyazaki, 1-1 Gakuen-Kibanadai Nishi, Miyazaki 8892192, Japan 2. Second sentence second paragraph. Add word "moving": "Fig. 1 shows the overall process of the robot moving to its destination. "

5. Parallel visitors' algorithm (p.85): 1. Paragraph 4, 1st sentence. Replace "beginning" with "initial".

5.2 Experimental Evaluations

1. Paragraph 1, 2nd sentence, replace "square" with "angle".

2. 3rd sentence, add reference to figure and word "are": "In Fig. 6, three robots are...".

3. Replace less than and greater than symbols with angle brackets in paragraphs 2–6.

4. Paragraph 7: Replace "randomly" with "random".

5. p.89 Fig. 7: In the original version, the dotted green curve (hyperbolic) does not display correctly. This has been corrected in the revised version.

6. p.89, first paragraph: the equation numbers should be 38 and 42 instead of 36 and 40.

6.1 From synchronous to asynchronous

1. Sentence 6. Add word "is": "This is equivalent to ...".

2. Sentence 9. Add word "a": "... system-wide waiting is a regular side effect ...".

6.4 Starvation freedom

1. Proof (p.93):

1.a replace word "pebble" with robot.

1.b remove word "either" in the last sentence.

6.5.3 Characterizing Throughput and Run Time (p.95)

Start of sentence 11, replace "Once again, the" with "A".
Conclusions

1. (p.96) First paragraph on the page, add "... which is suboptimal from a makespan point of view."

2. Last sentence of first paragraph: replace repeated "so that" with "and".

3. Remove the last 4 sentences. They are a repetition from the 1st paragraph 3rd sentence to end of 1st paragraph.

Note: Francois van Eeden can currently be contacted at: <vaneeden.cf@gmail.com>.



Fig. 7 Moves and turns on a  $12 \times 12$  workspace for parallel execution

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### References

## Add reference to the first author's master's thesis

 van Eeden CF (2017) Visiting pebbles on rectangular grids: coordinating multiple robots in mobile fulfilment systems. Master's thesis, University of Miyazaki

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