

Assignment 2: RANSAC experiments

You get a lot of time for each assignment. Therefore, we ask you to take:

- Proper time for thinking: do not get stuck on the first reasonable idea, but think further if there are other options. Weigh the advantages and disadvantages.
- Proper time for careful execution: avoid that a stupid programming bug renders all experimental results useless.
- Proper time for reporting: avoid typos, substandard layout, inconsistent terminology, etc.

Research is all about being careful and taking time to do it right. All assignments can be solved in half the time, but this is not what we expect you to do.

Handing in assignments: Use e-mail and send to Marc (m.j.vankreveld@uu.nl). Use a specific format for the file name: INFOMSCIP-2-Y.pdf and Y is the group number. The pdf itself should start with the names and student numbers of everyone in the group. Always cc the whole group when submitting an assignment.

Recall that you should specify how many hours each team member spent, and if any team member had specific tasks not done by all.

Assignment: Study how RANSAC works from the slides and possibly other sources. Then read the partially written paper describing the research objectives and the experimental set-up. Then perform the experimental research and complete the paper. To this end, generate synthetic data, implement the method, and run the tests.

To finish the experimental research paper, report on the tests and analyze the outcome. The italic texts should be replaced by your own texts, based on the experiments.

Time investment: Reading and understanding RANSAC and partly written paper: 3 hours; implementing, debugging, and double-checking: 8 hours; discussing how to extend: 1 hour; designing this experiment: 1 hour; designing and making visualizations: 3 hours; careful write-up and checking: 4 hours. Total investment per person: 20 hours. You may also need time to learn Latex and graph/plot making software.

Deadline: Thursday September 26, 2019 at 11am. Remember to cc the whole group.

Assessment criteria: Adhering to the specifications (10%), choices of tests made for experiment 2 (20%), choices made for reporting and/or visualizing the results (20%), quality of the evaluation (20%), overall quality of the hand-in (careful explanation, proper argumentation, layout, structure, language; 30%).