# Generalized Microscopic Crowd Simulation using Costs in Velocity Space: Supplementary Images

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## **1 EXPLANATION**

This supplementary file contains images of various simulation scenarios. For each scenario, we show the results of 8 different navigation algorithms, as discussed in the main paper. All images show the trajectories of agents over time. The background squares measure 1  $m^2$  each. Screenshots were taken at different moments per scenario.

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Figure 1: Circle5: 5 agents moving to the opposite ends of a circle. Screenshots were taken after 10 s.



Figure 2: Circle10: 10 agents moving to the opposite ends of a circle. Screenshots were taken after 15 s.

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Figure 3: *Circle15*: 15 agents moving to the opposite ends of a circle. Screenshots were taken after 15 s.



Figure 4: Circle25: 25 agents moving to the opposite ends of a circle. Screenshots were taken after 15 s.

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Figure 5: 1to1-90Degrees: 2 agents crossing at an angle of 90 degrees. Screenshots were taken after 7 s.



Figure 6: 1to1-135Degrees: 2 agents crossing at an angle of 135 degrees. Screenshots were taken after 7 s.

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Figure 7: 1to10-45Degrees: 1 agent and 10 agents crossing at an angle of 45 degrees. Screenshots were taken after 7 s.



Figure 8: 1to10-90Degrees: 1 agent and 10 agents crossing at an angle of 90 degrees. Screenshots were taken after 7 s.



Figure 9: 1to10-180Degrees: 1 agent and 10 agents crossing at an angle of 180 degrees. Screenshots were taken after 10 s.

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Figure 10: 25to25-90Degrees: Two groups of 25 agents crossing at an angle of 90 degrees. Screenshots were taken after 13 s.



Figure 11: 25to25-180Degrees: Two groups of 25 agents crossing at an angle of 180 degrees. Screenshots were taken after 13 s.