# Mobile Robots and Autonomous Vehicles

## Week 5: Behavior Modeling and Learning

- Typical trajectories: drawbacks

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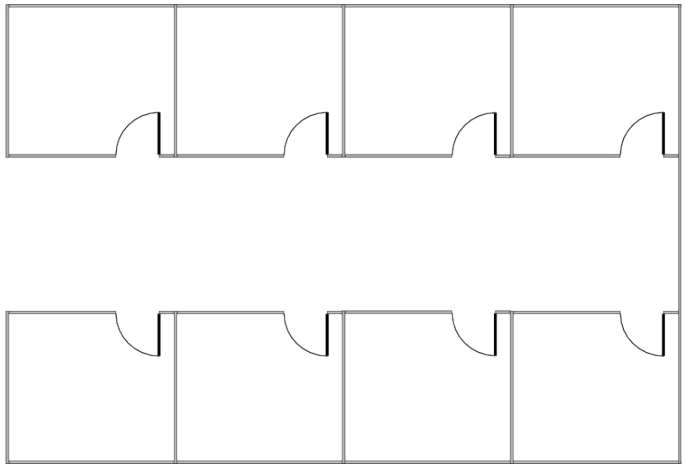
informatiques mathématiques

# Problems: lack of generality



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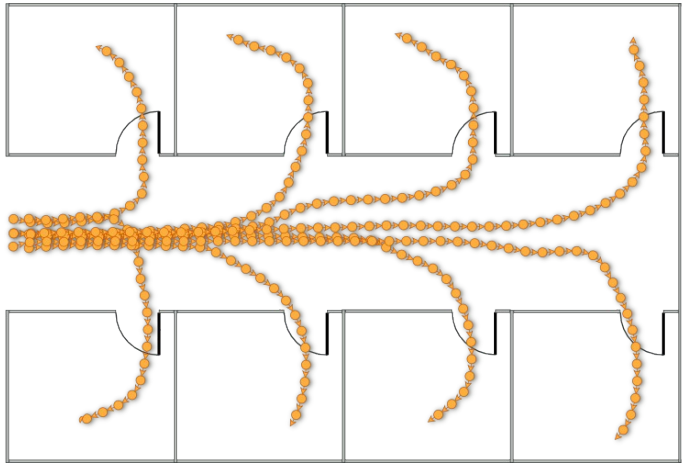

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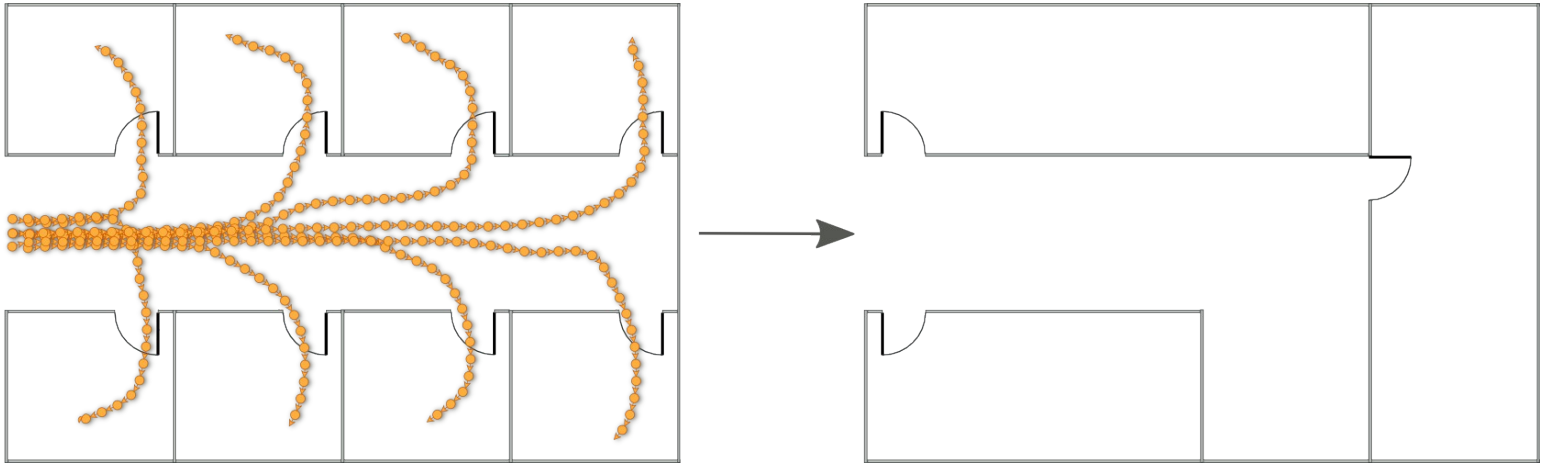

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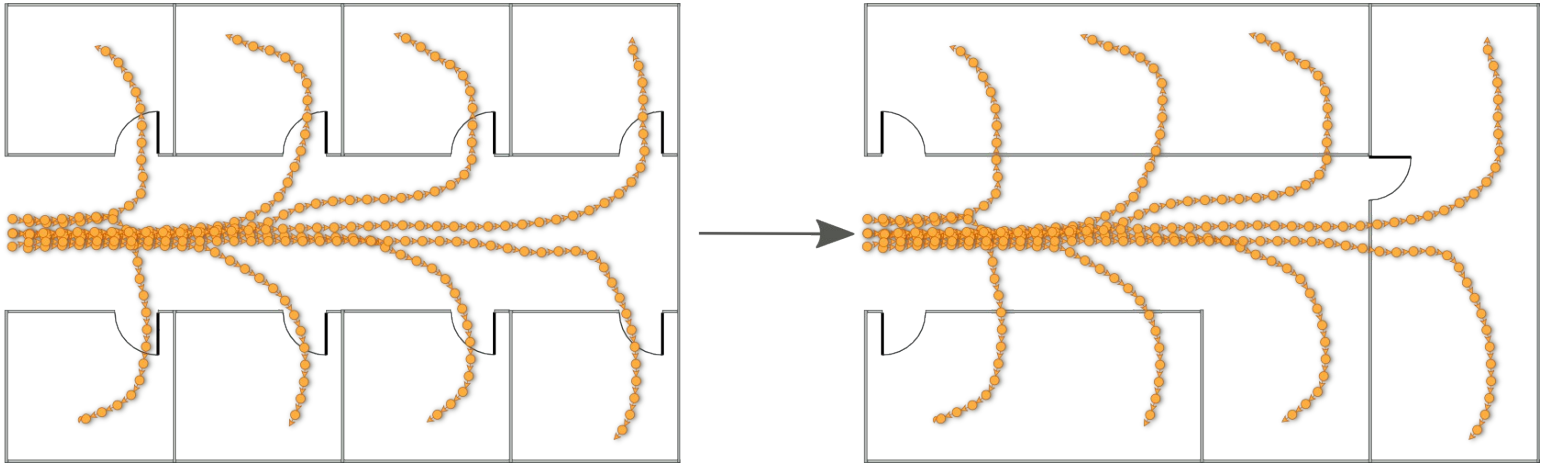
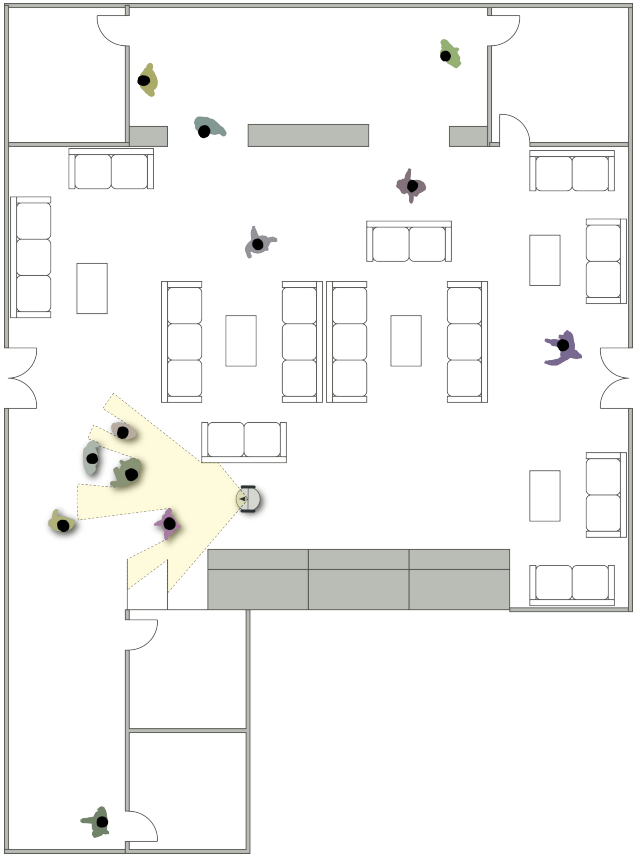


# Problems: dependence on off-board sensors



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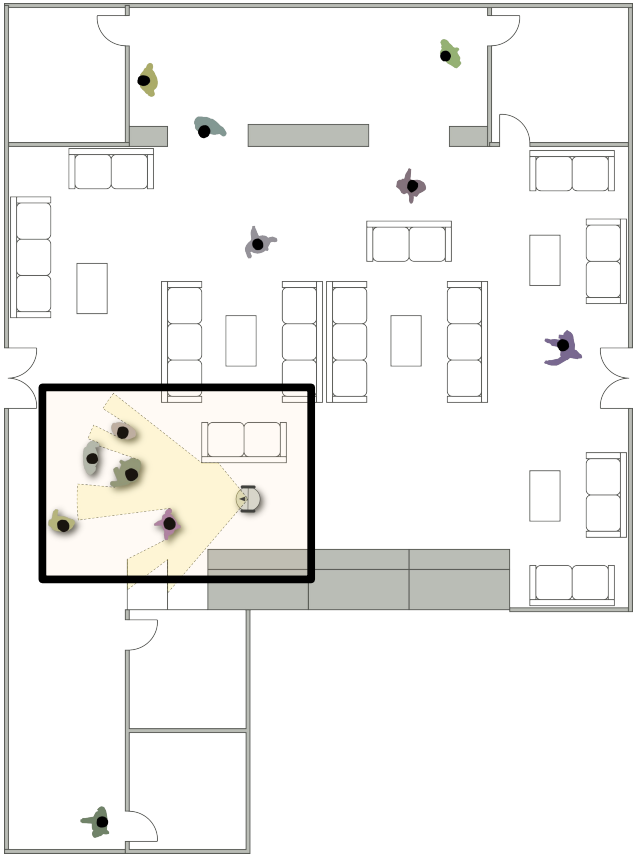
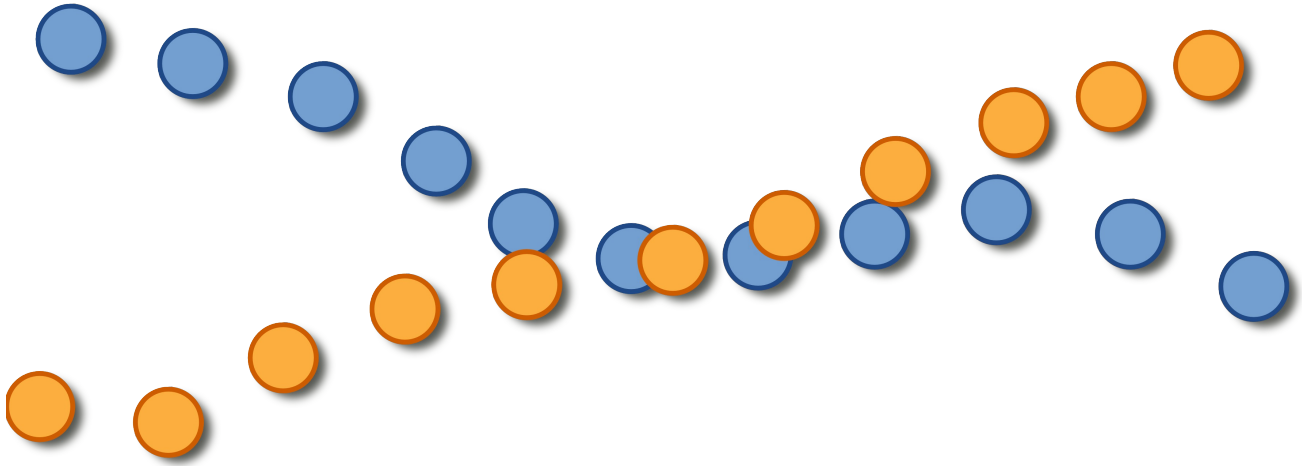


# Problems: dependence on off-board sensors

# Problems: dependence on robust tracking



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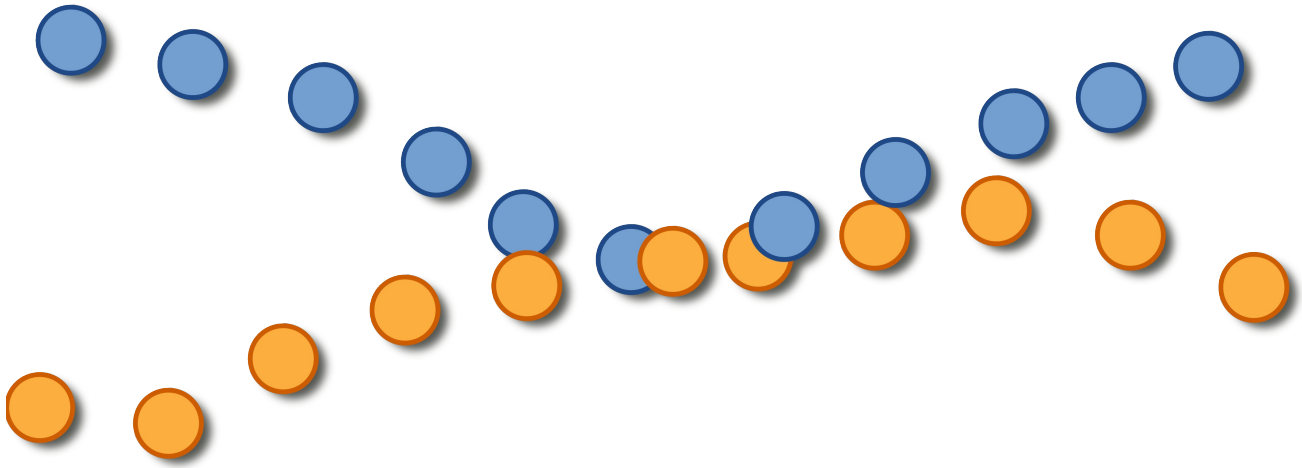
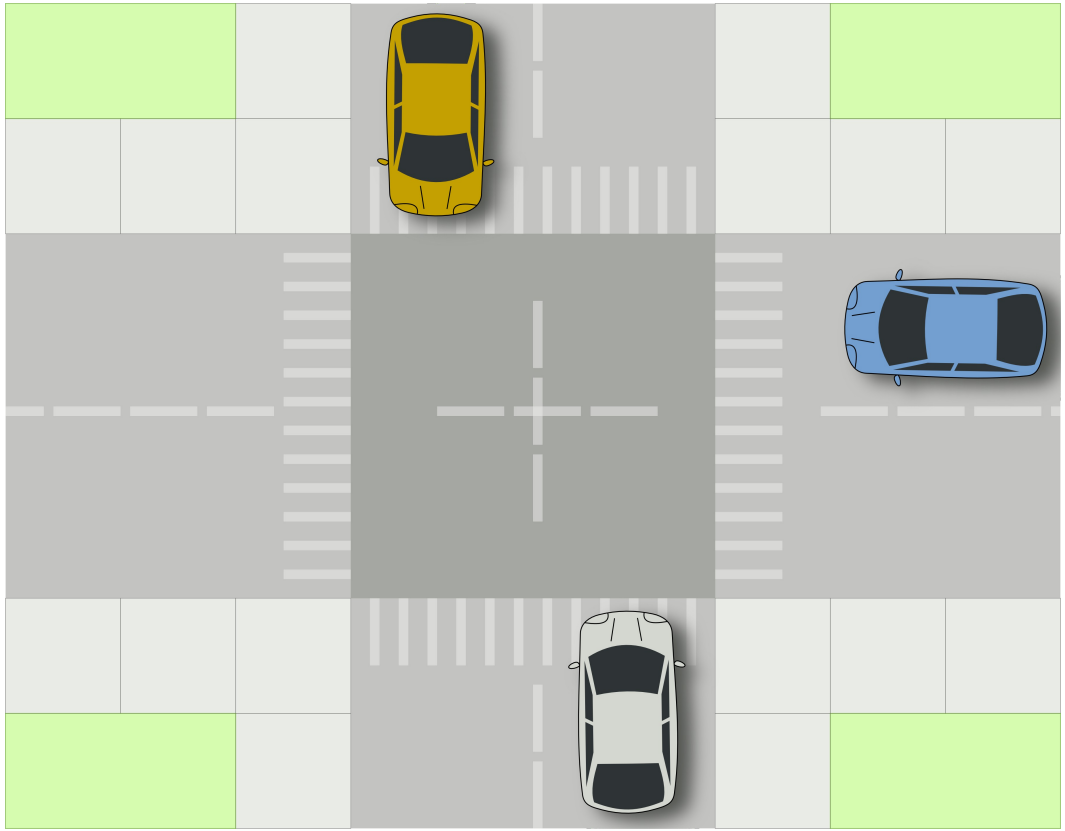


# Problems: do not model interaction



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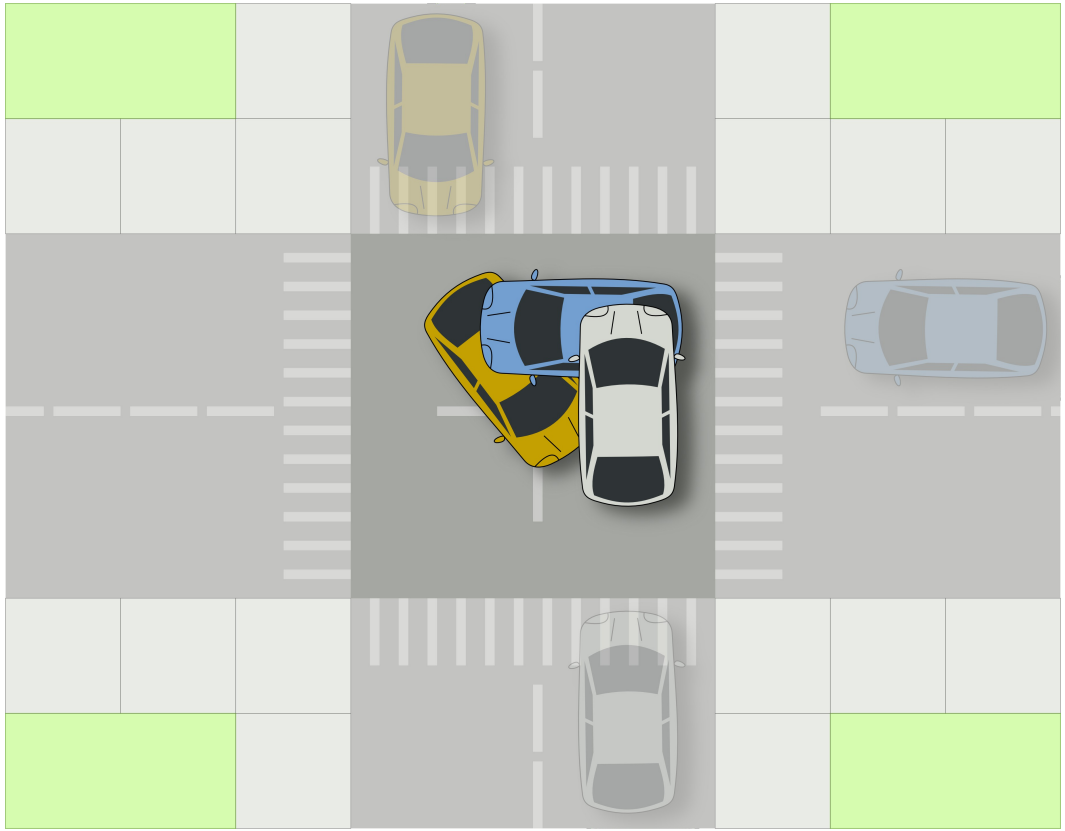

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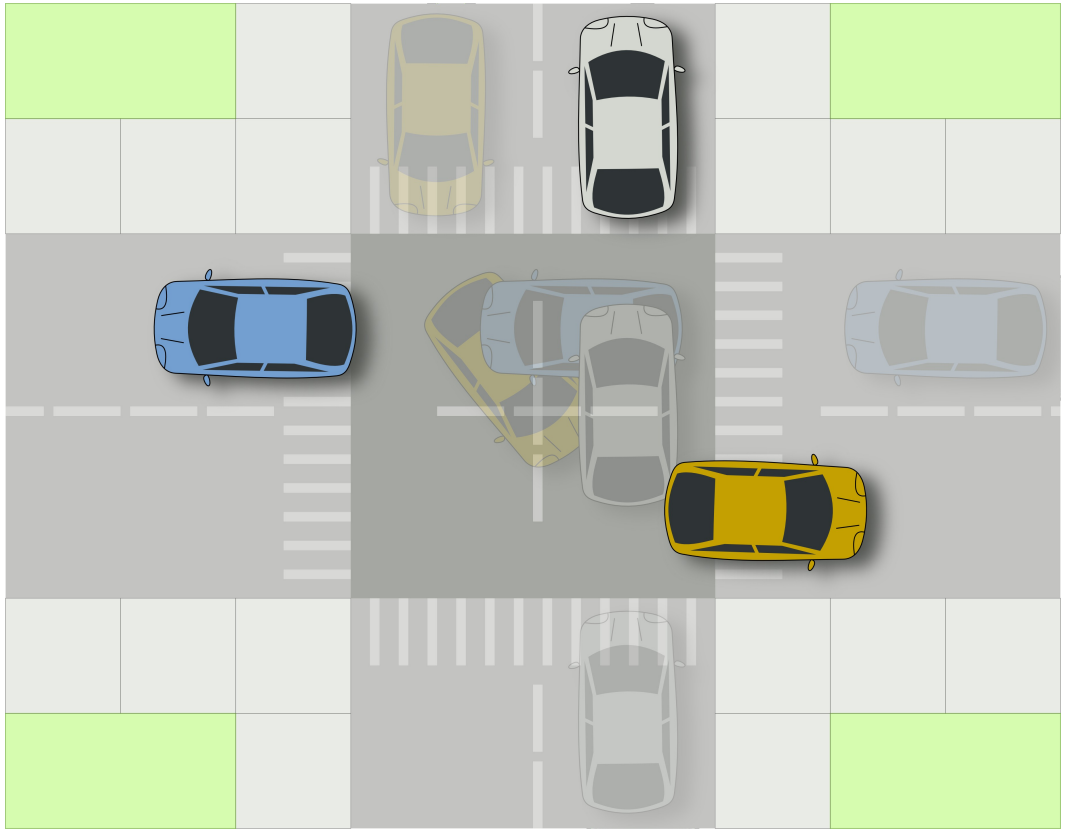

# What to do?

- Integrate prior knowledge (e.g. maps)
- Semantics (e.g. kind of place, affordances)
- Situation-anchored representations
- Two alternatives:
  - Social models (e.g. social forces)
  - Planning-based approaches