

# Simultaneous Localization and Mapping (SLAM)

## Assignment - Particle Filters

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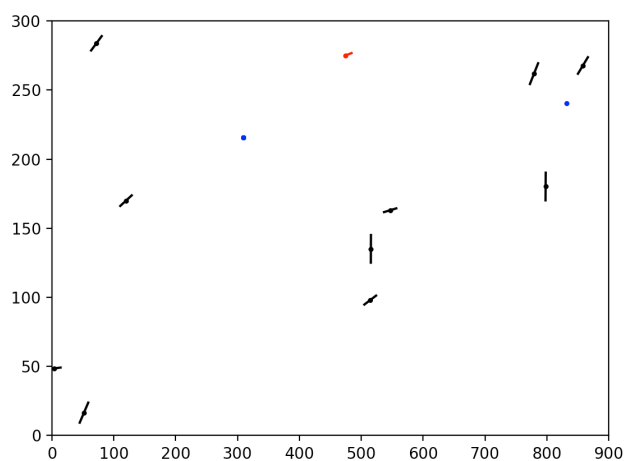
Discuss the results. Were the results expected or did they surprise you?

These turned out to be bad results because the particles' location is not what I predicted. Also, I cannot predict their location for they are all random. I think the reason I failed is because I didn't provide comprehensive code.

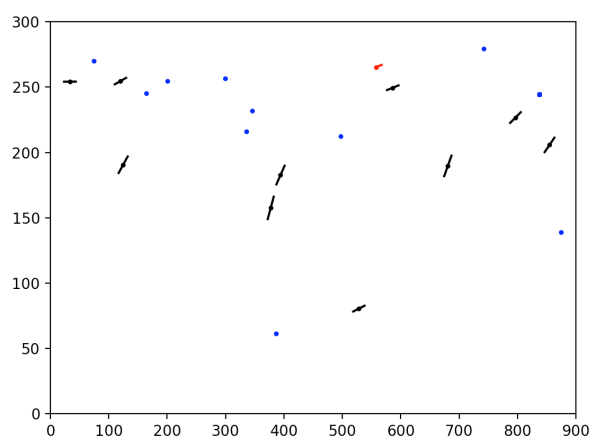
Did the results highlight shortcomings in the system? Do you have any ideas for how to fix those?

I think that resampling function is very important part in the whole system, if I didn't chose the right way to resample particles, it will always chose the top10 or 30 in all of particles, so I think that resampling function is the reason why I failed in this assignment.

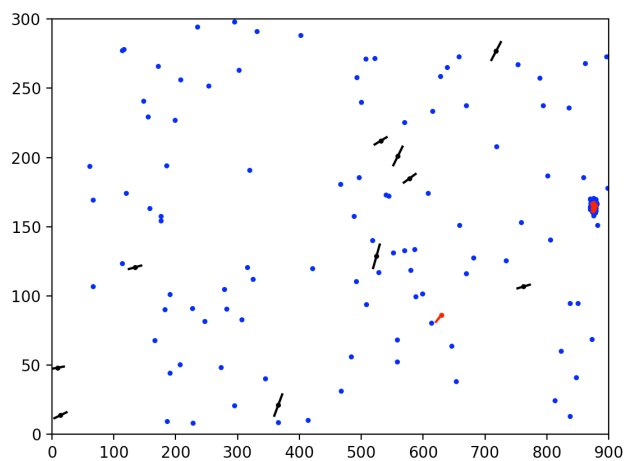
obstacles:10, particles: 10



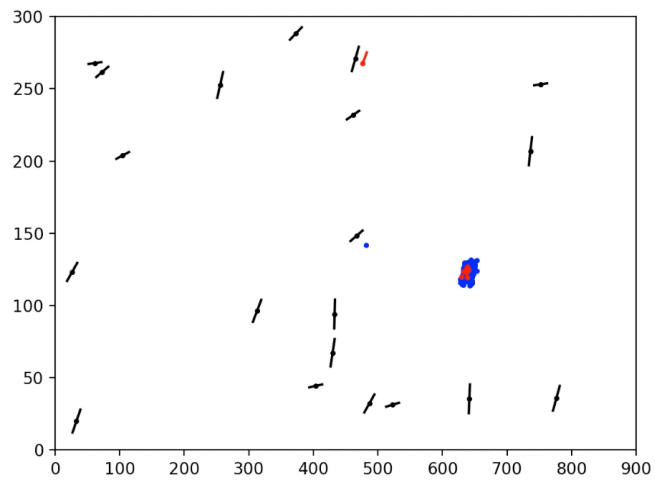
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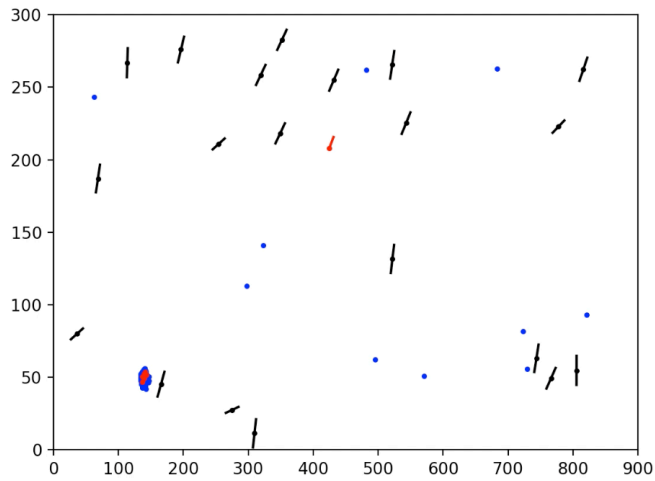
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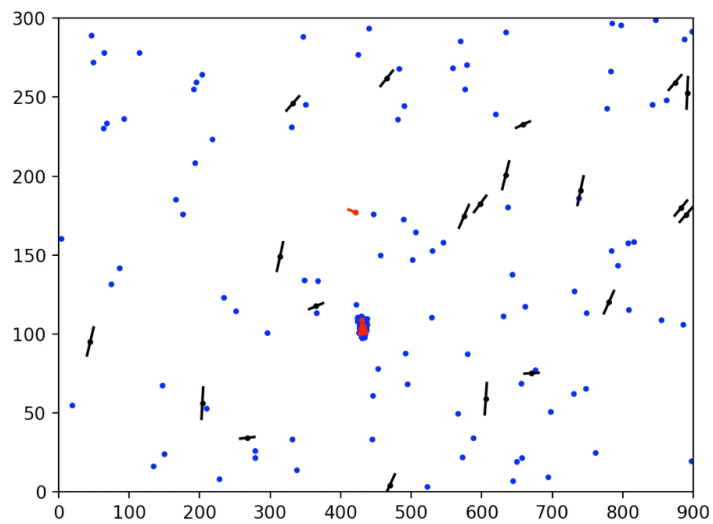
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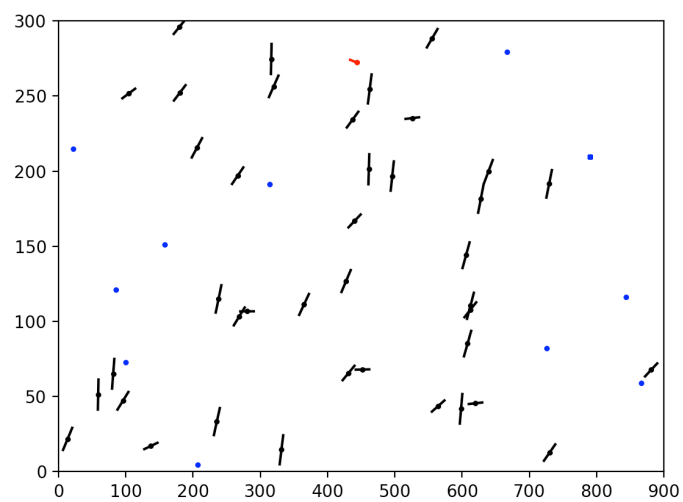
obstacles:20, particles: 100



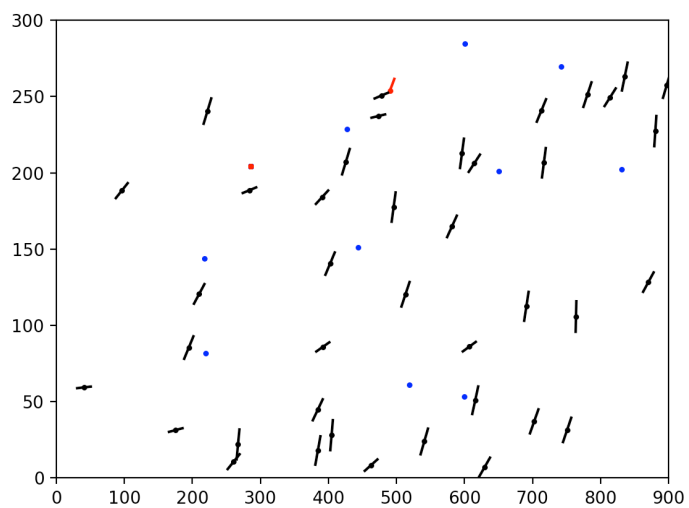
obstacles:20, particles: 1000



obstacles:40, particles: 10



obstacles:40, particles: 100



obstacles:40, particles: 1000

