

# Developing acoustic localization for wildlife in environmental impact assessment

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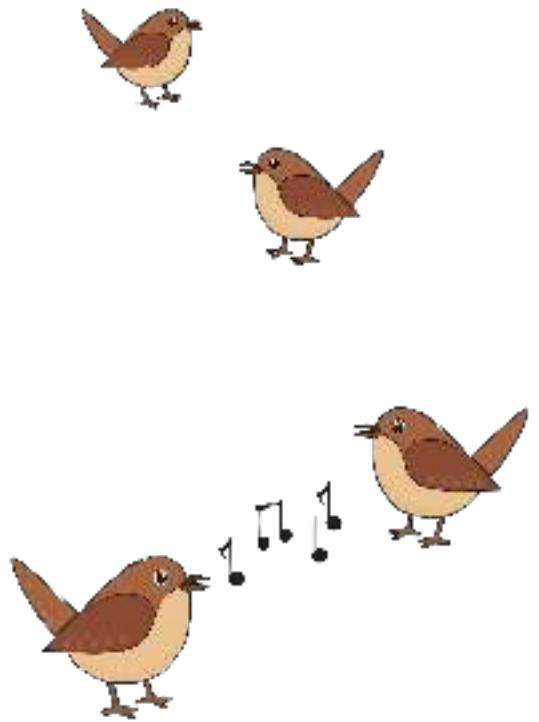
# Assessing impacts



# Challenges in sight



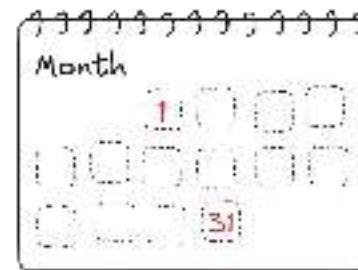
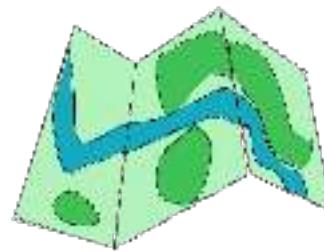
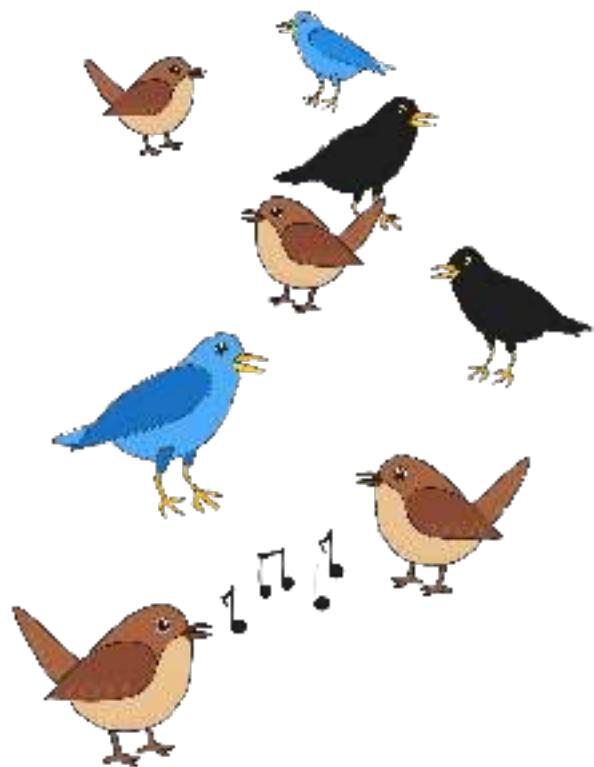
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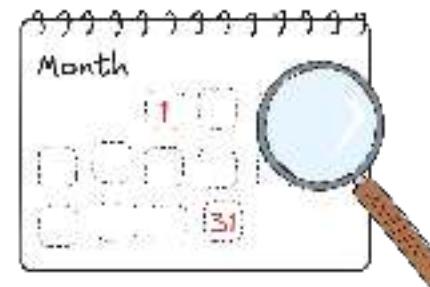
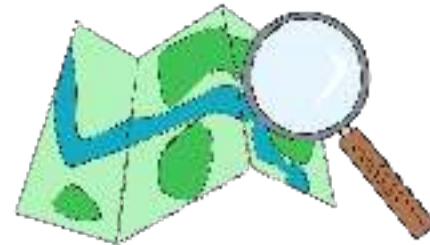
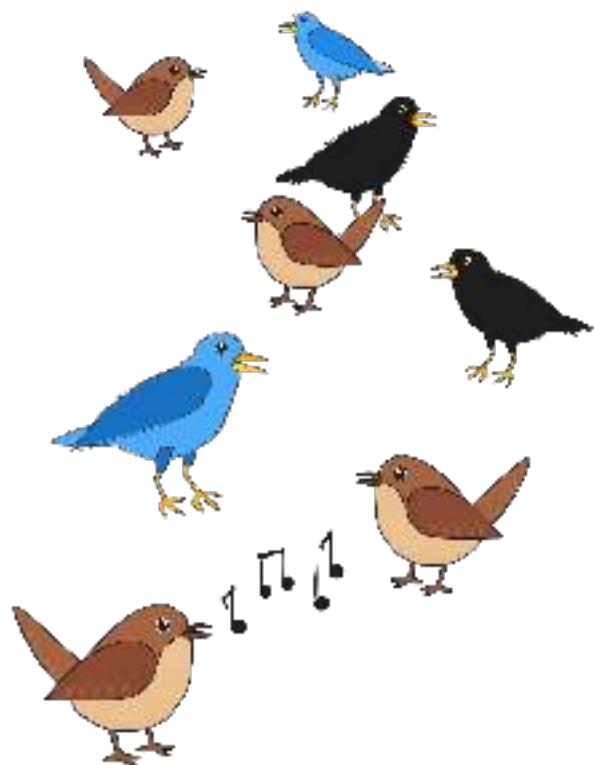
# Challenges in sight



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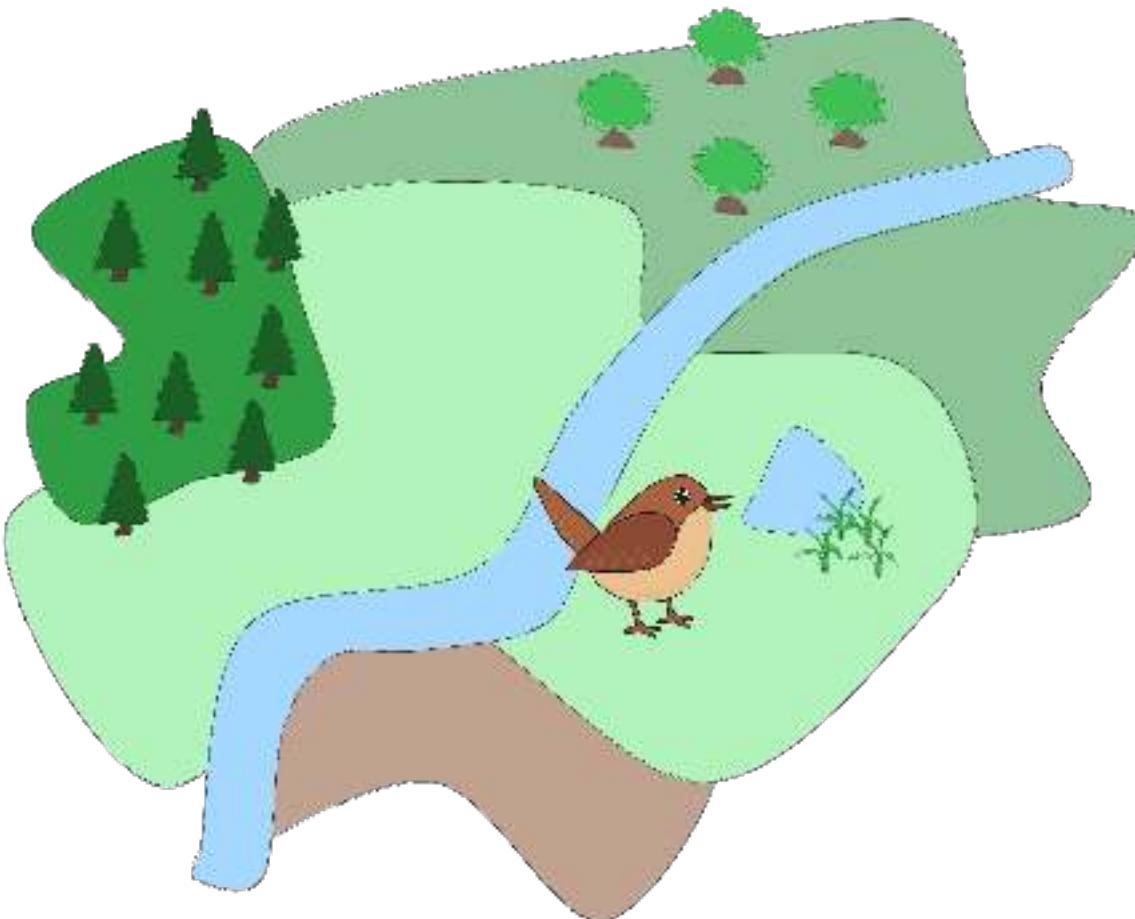


# Behavioral insights

Mennill et al. (2006), Dutilleux, Sandercock, and Kålås (2023), Teixeira, Maron, and Rensburg (2019)



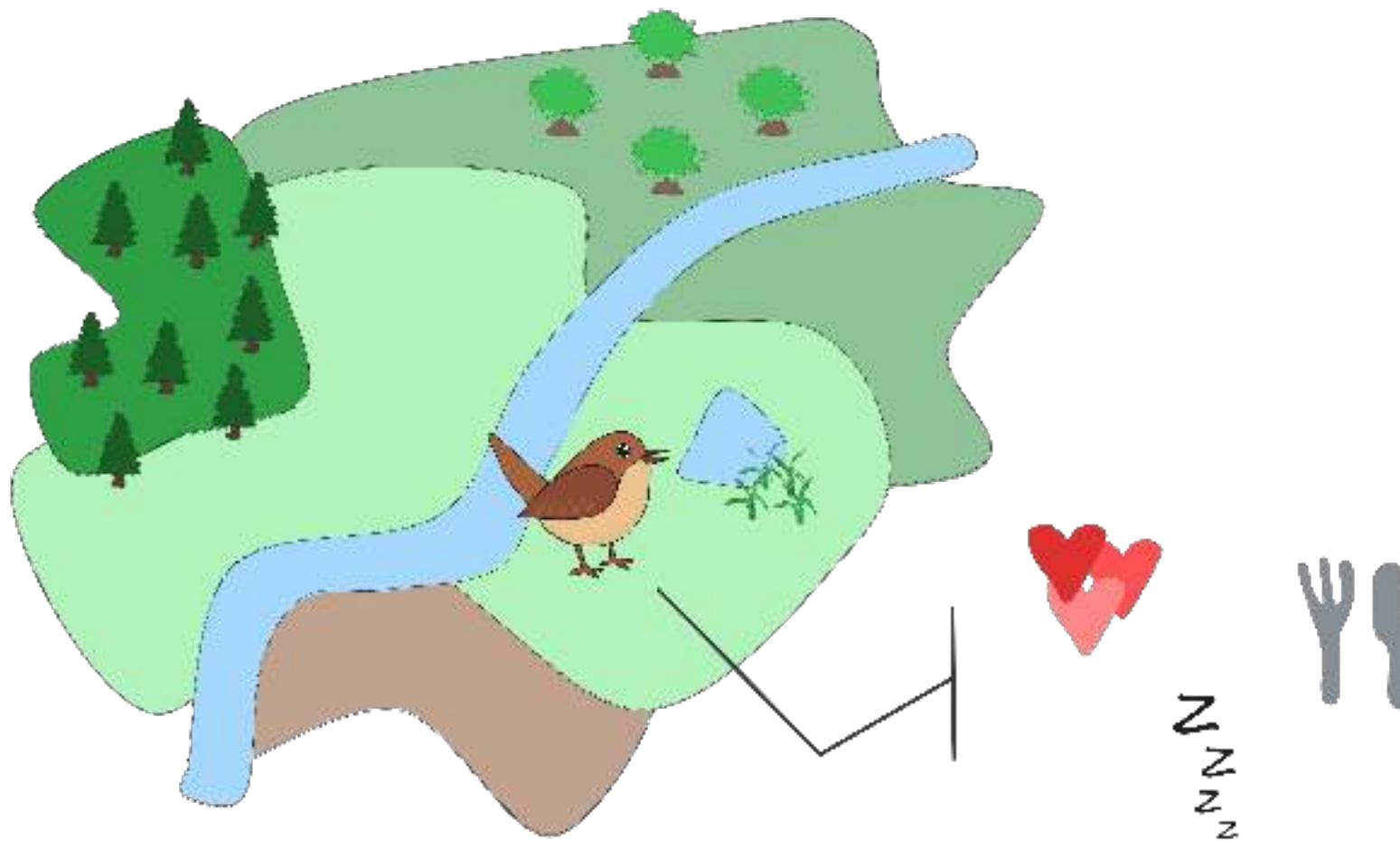
# Behavioral insights



Mennill et al. (2006), Dutilleux, Sandercock, and Kålås (2023), Teixeira, Maron, and Rensburg (2019)



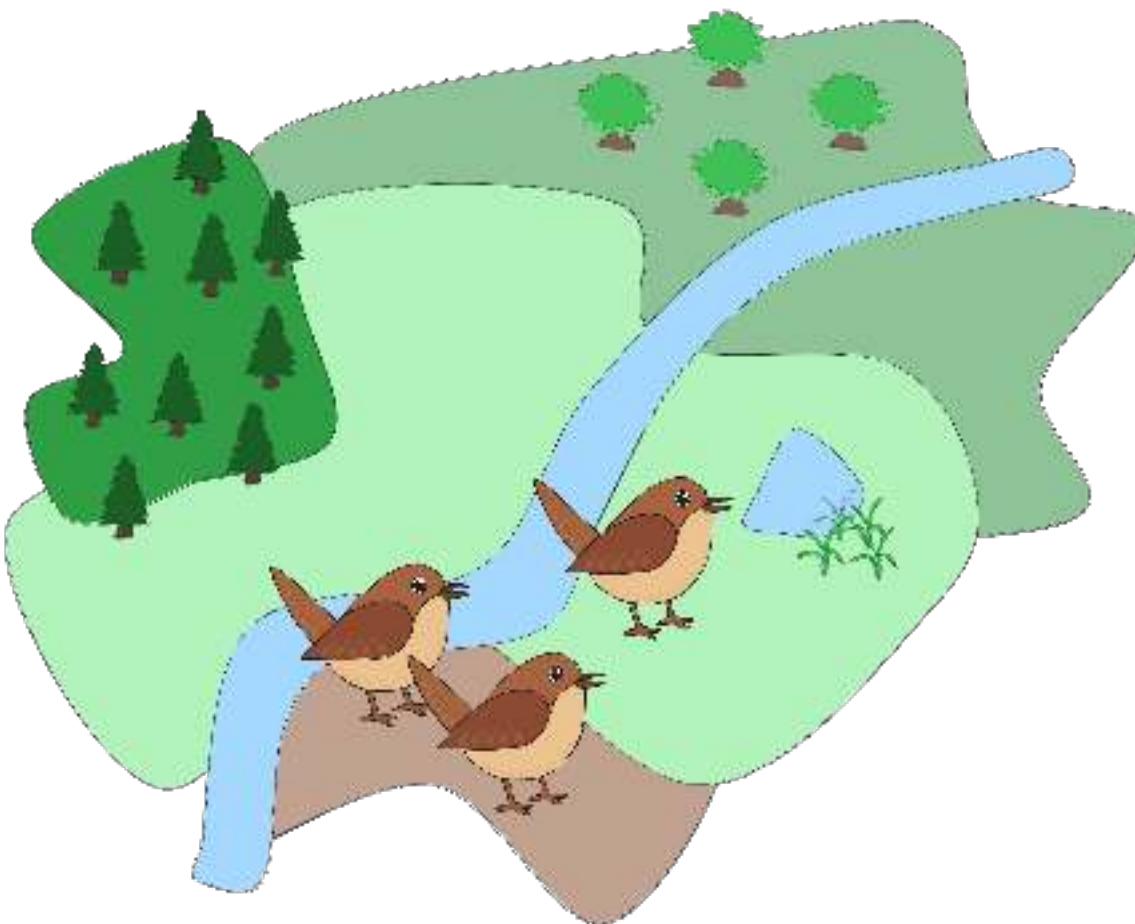
# Behavioral insights



Mennill et al. (2006), Dutilleux, Sandercock, and Kålås (2023), Teixeira, Maron, and Rensburg (2019)



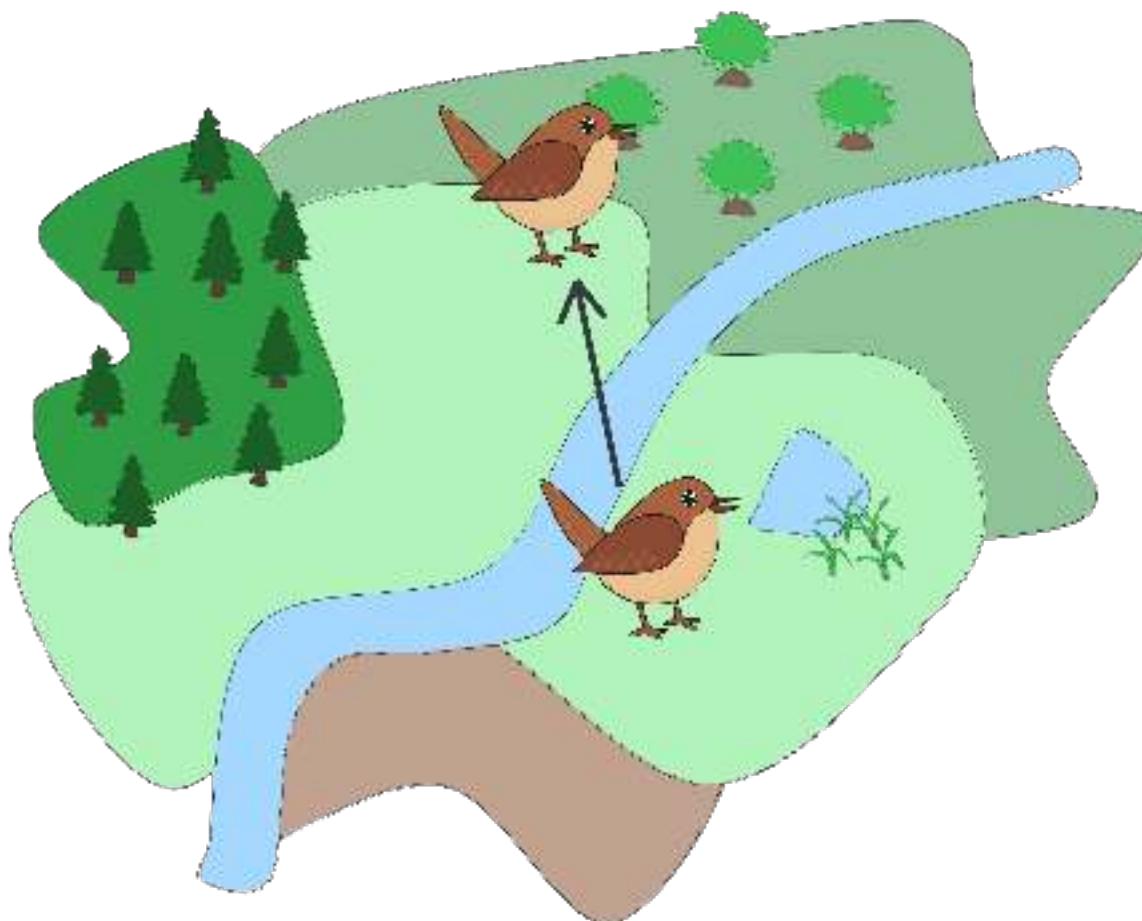
# Behavioral insights



Mennill et al. (2006), Dutilleux, Sandercock, and Kålås (2023), Teixeira, Maron, and Rensburg (2019)



# Behavioral insights



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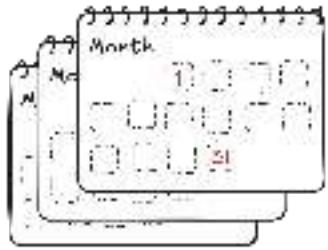
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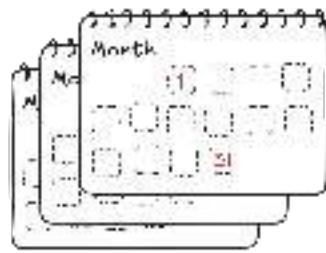
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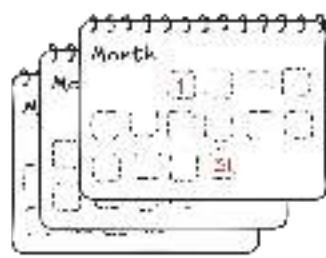
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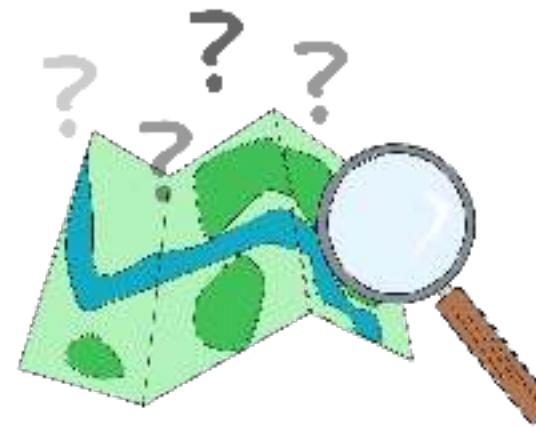
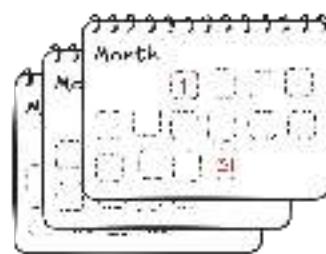
# From sight to sound



# From sight to sound



# From sight to sound



# Localizing sounds



# On the field



# On the field



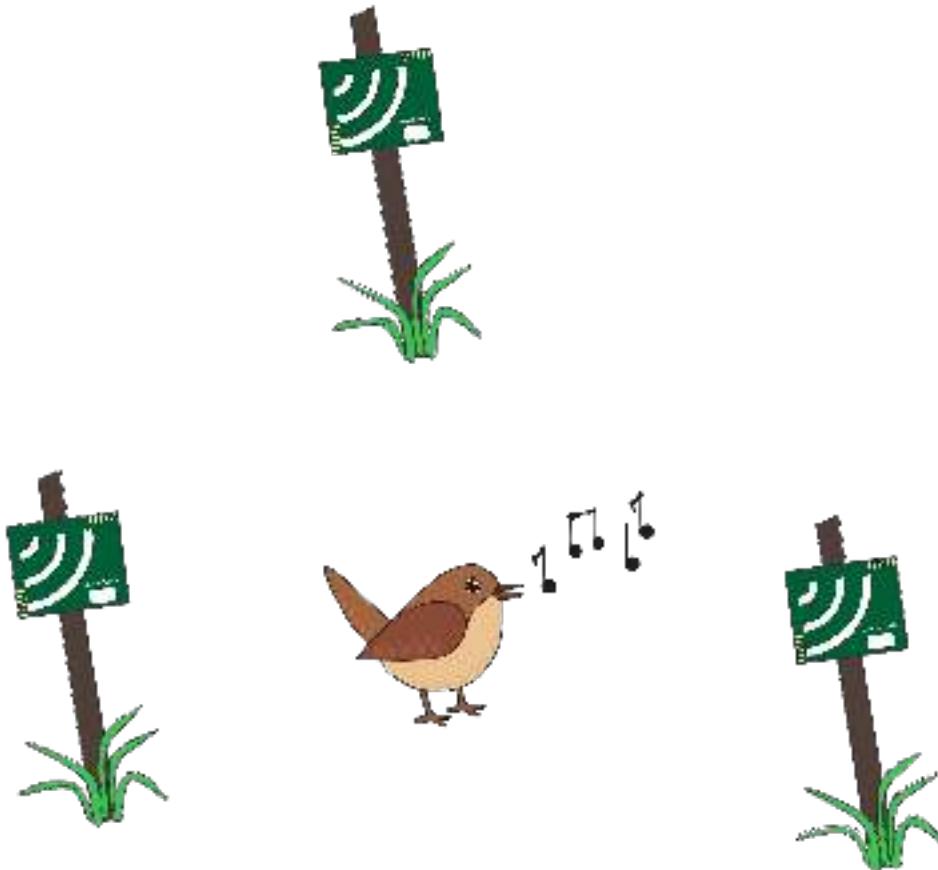
Multiple microphones



Time synchronization



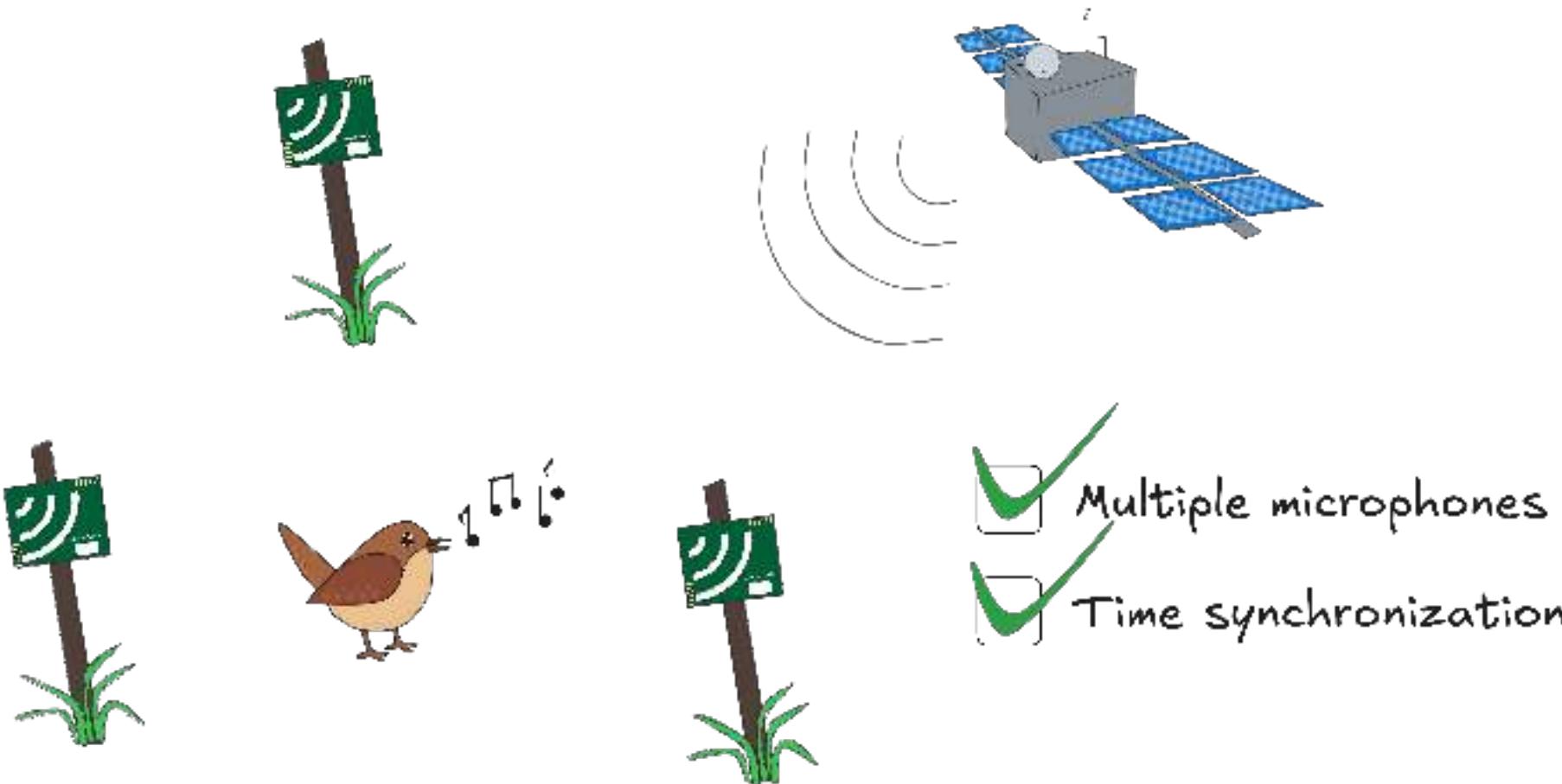
# On the field



- Multiple microphones
- Time synchronization



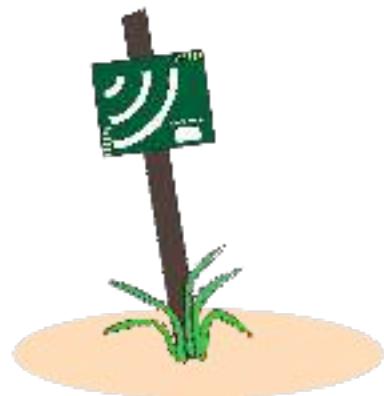
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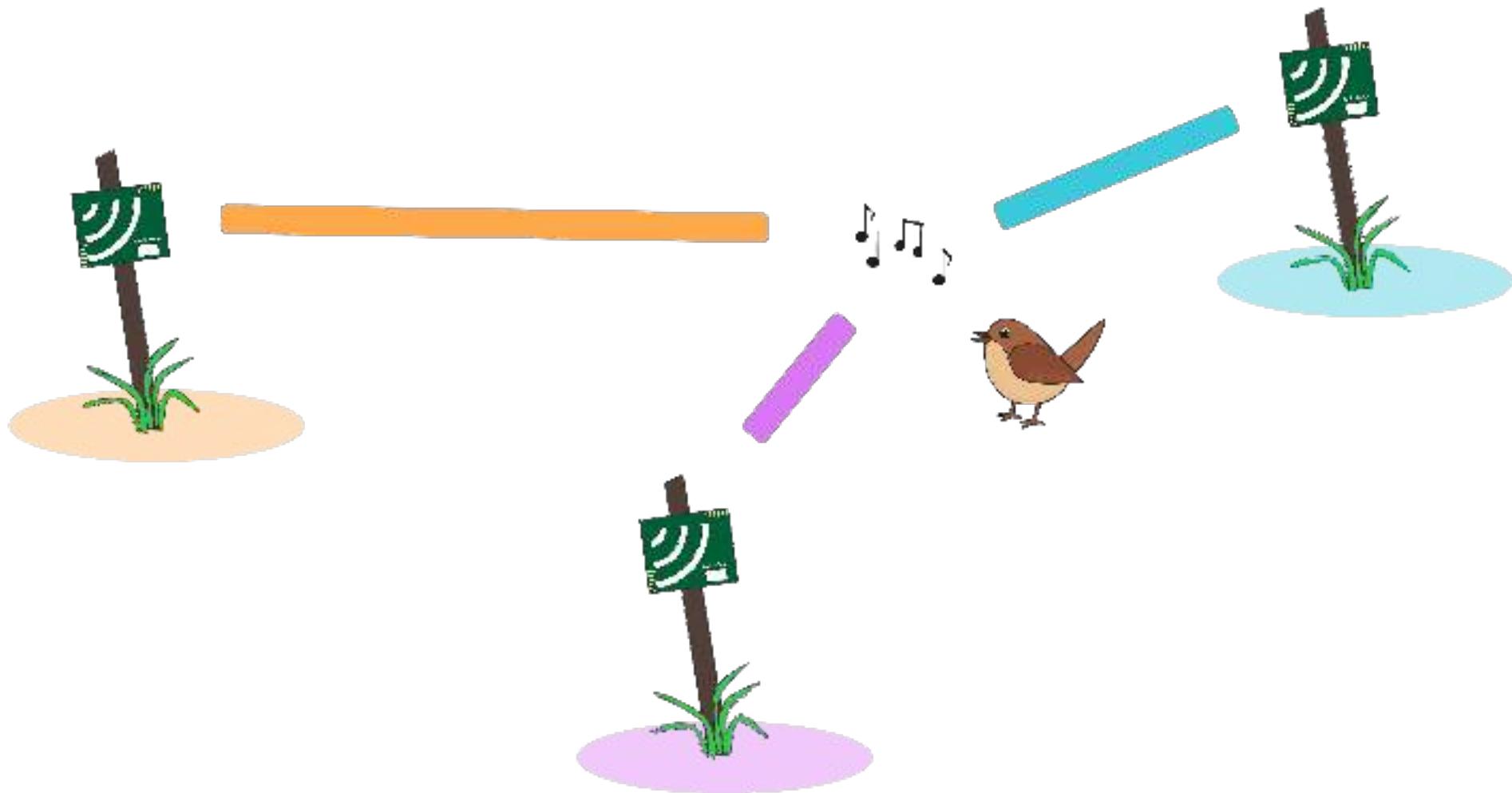
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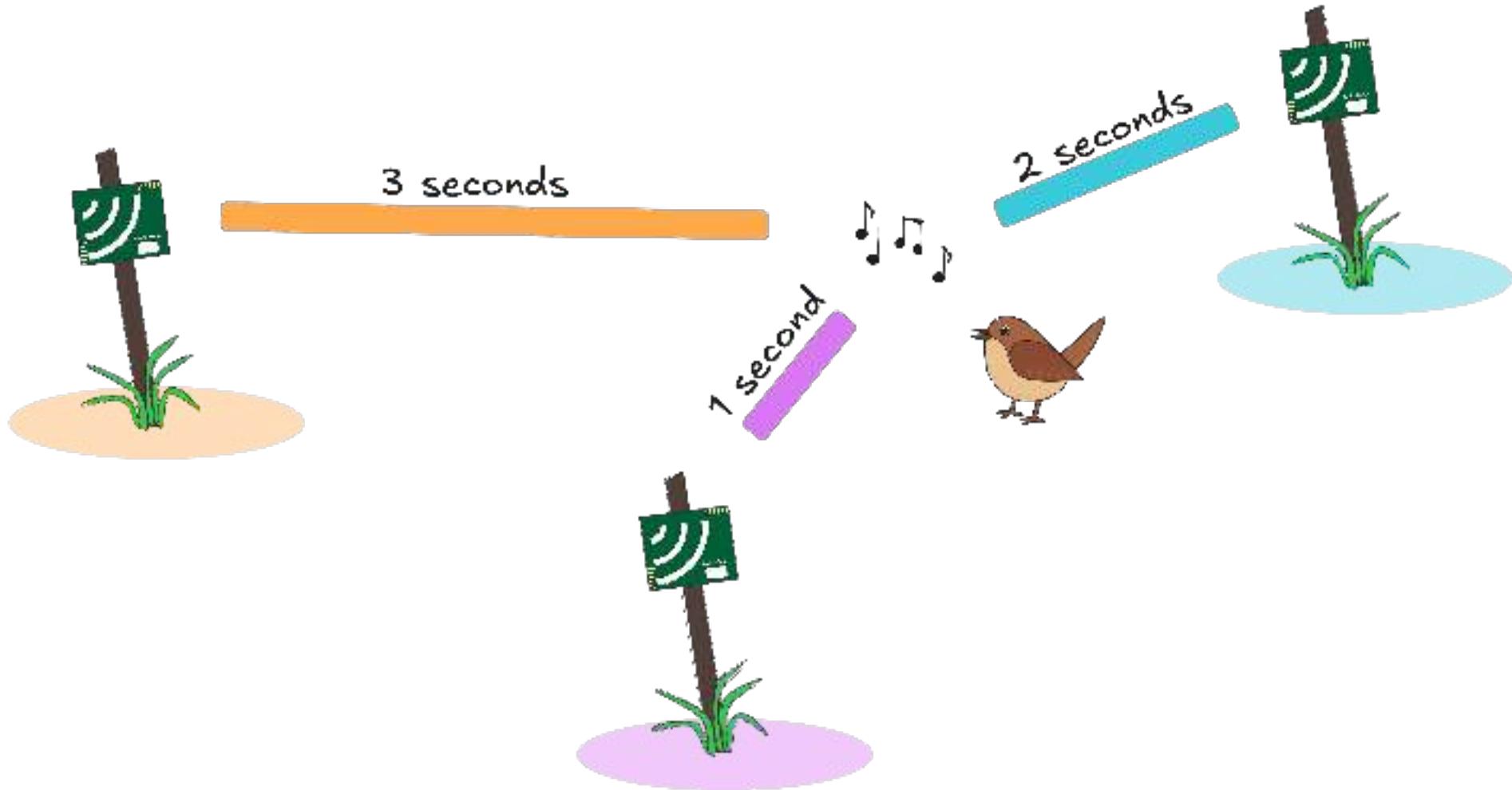
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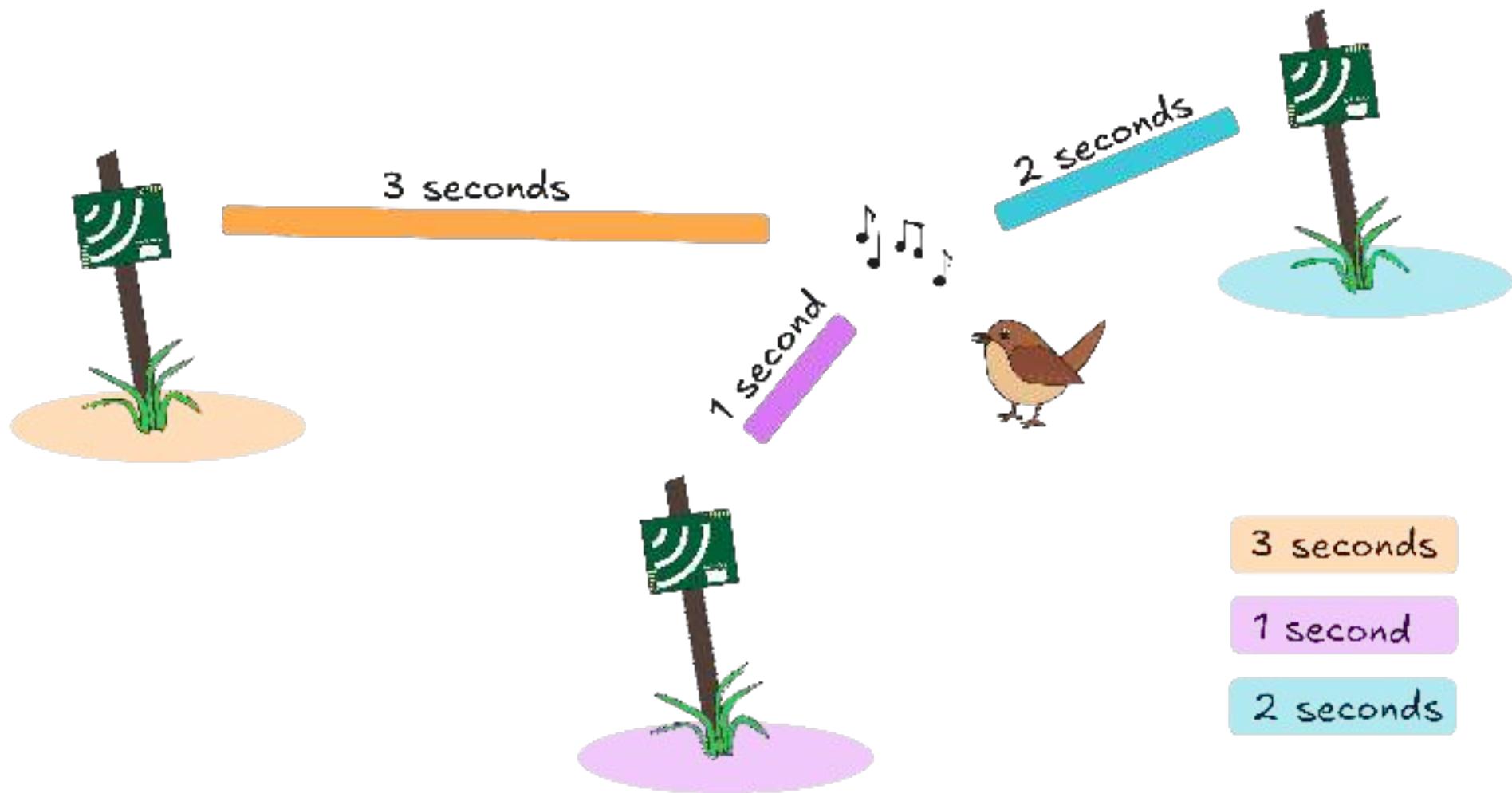
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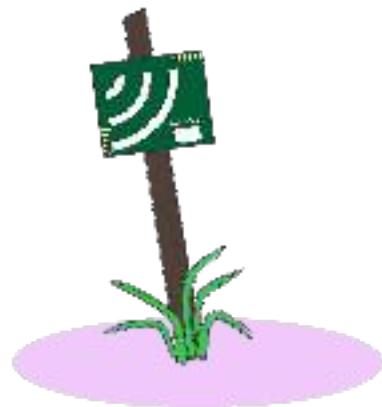
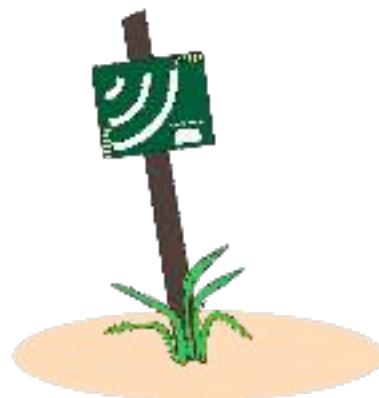
# At the lab



# At the lab



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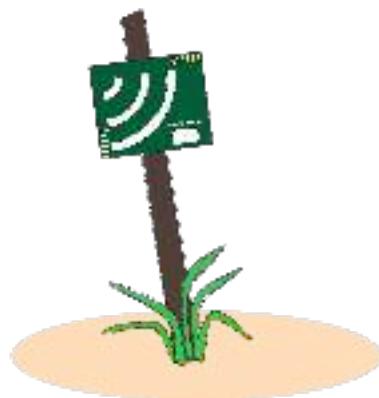
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1 second

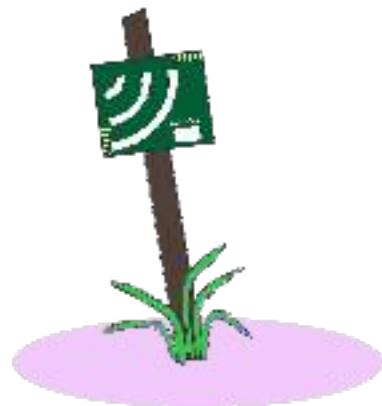
2 seconds



# At the lab



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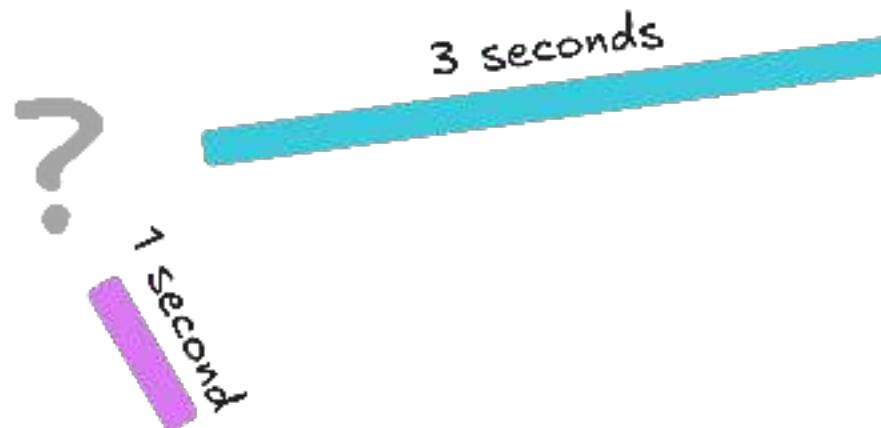
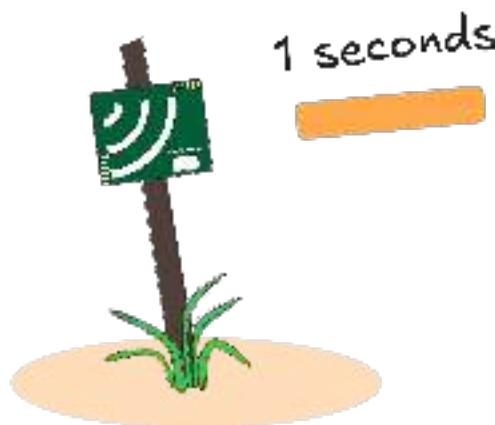
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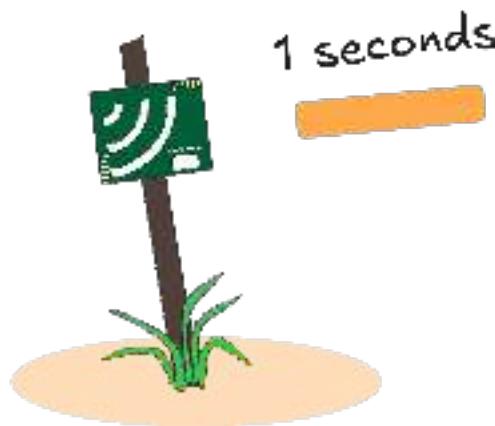
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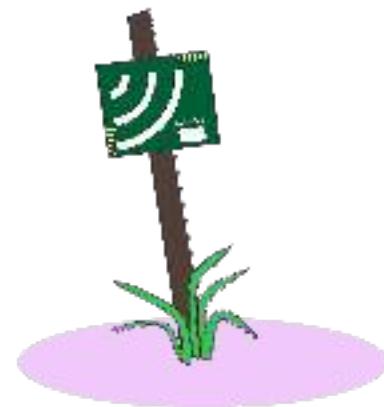
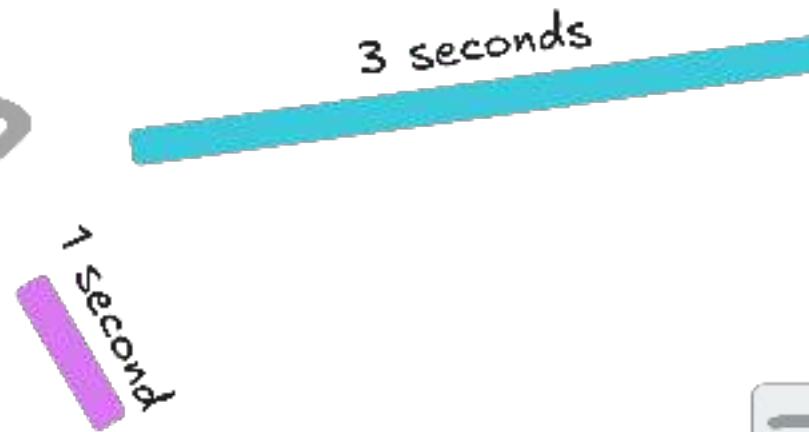
3 seconds  
1 second  
2 seconds



# At the lab



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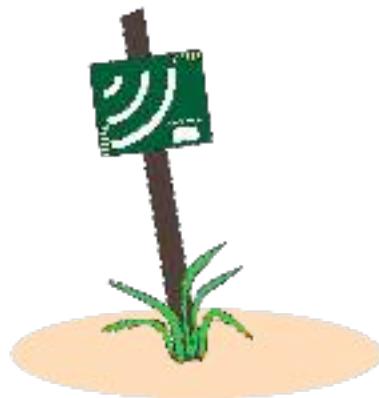


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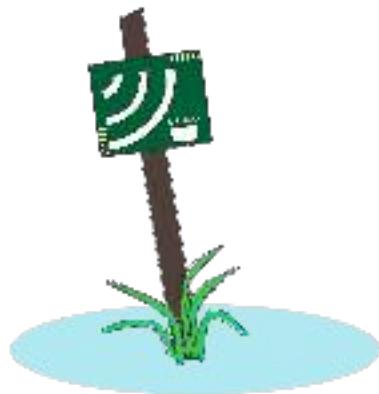
- |   |           |
|---|-----------|
| 1 | 3 seconds |
| 1 | 1 second  |
| 3 | 2 seconds |



# At the lab



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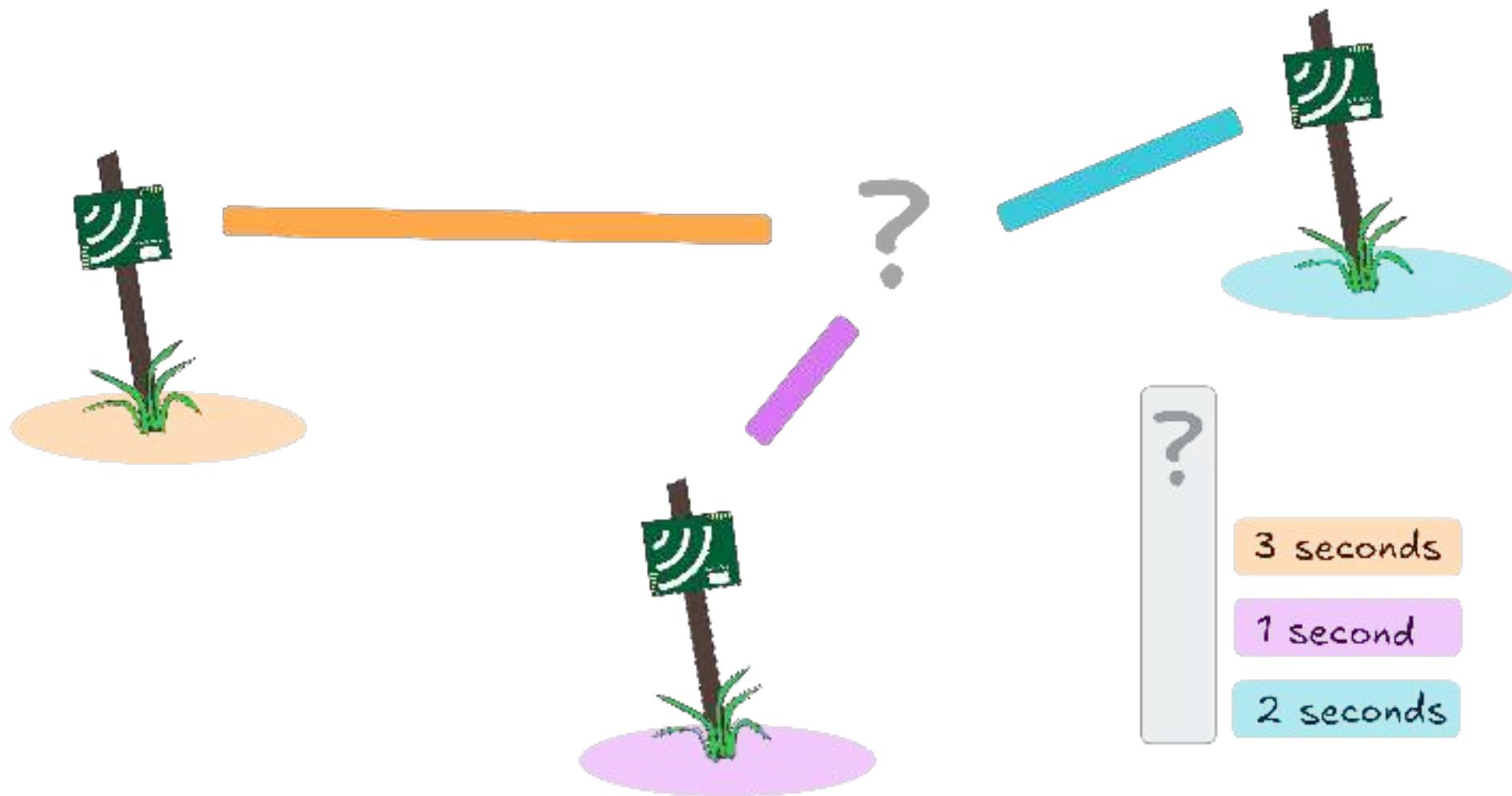
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1 second

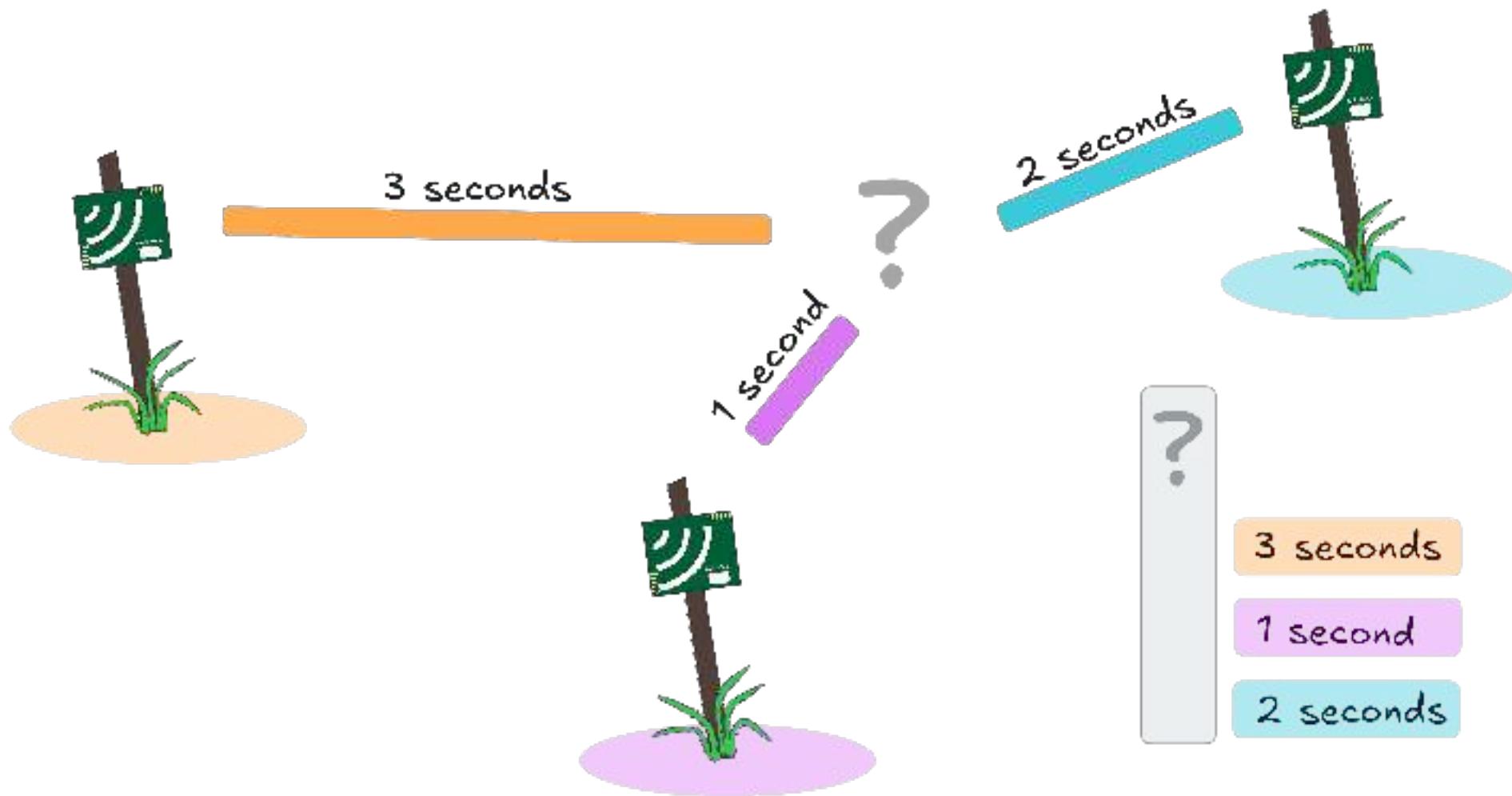
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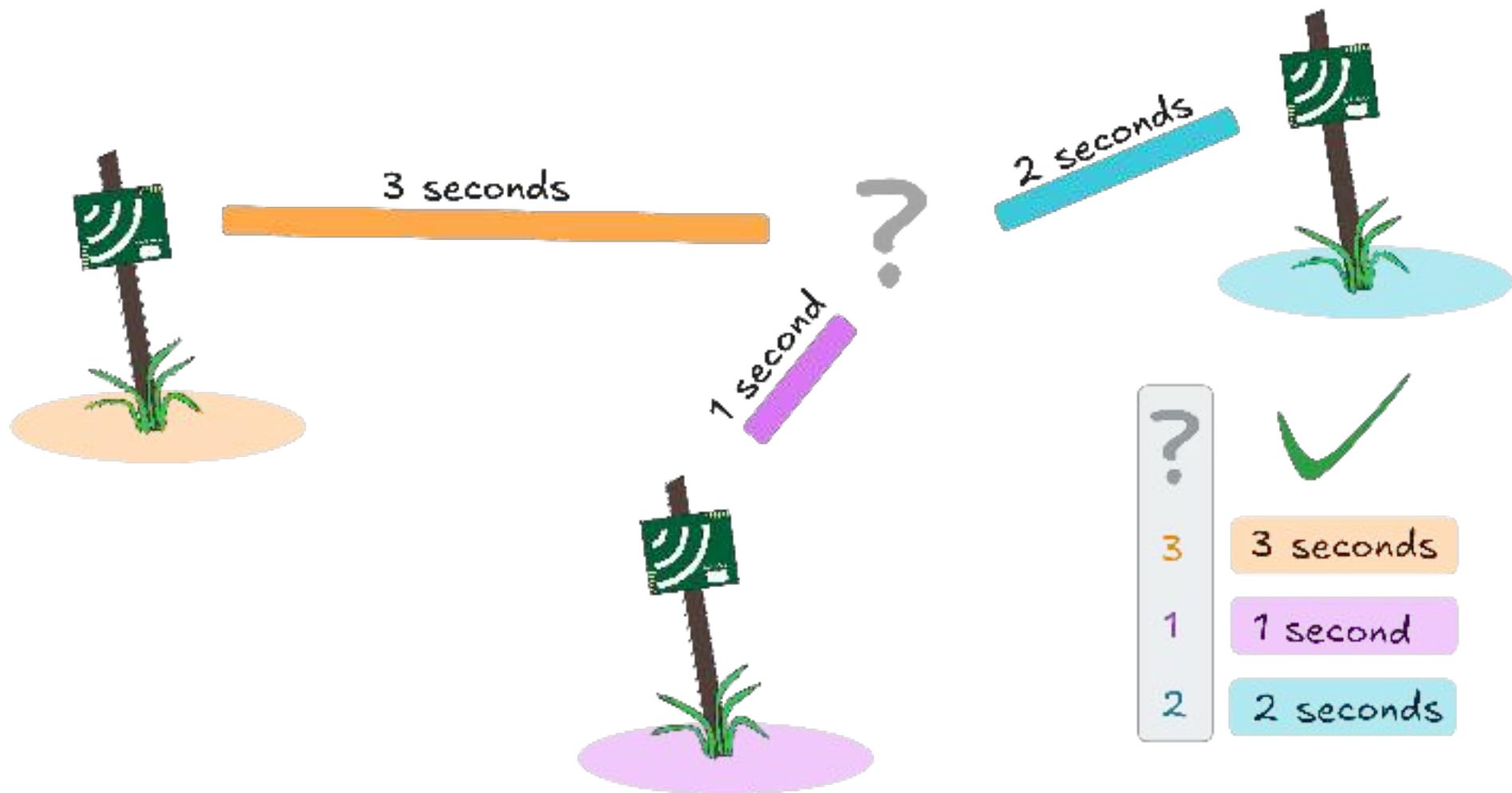
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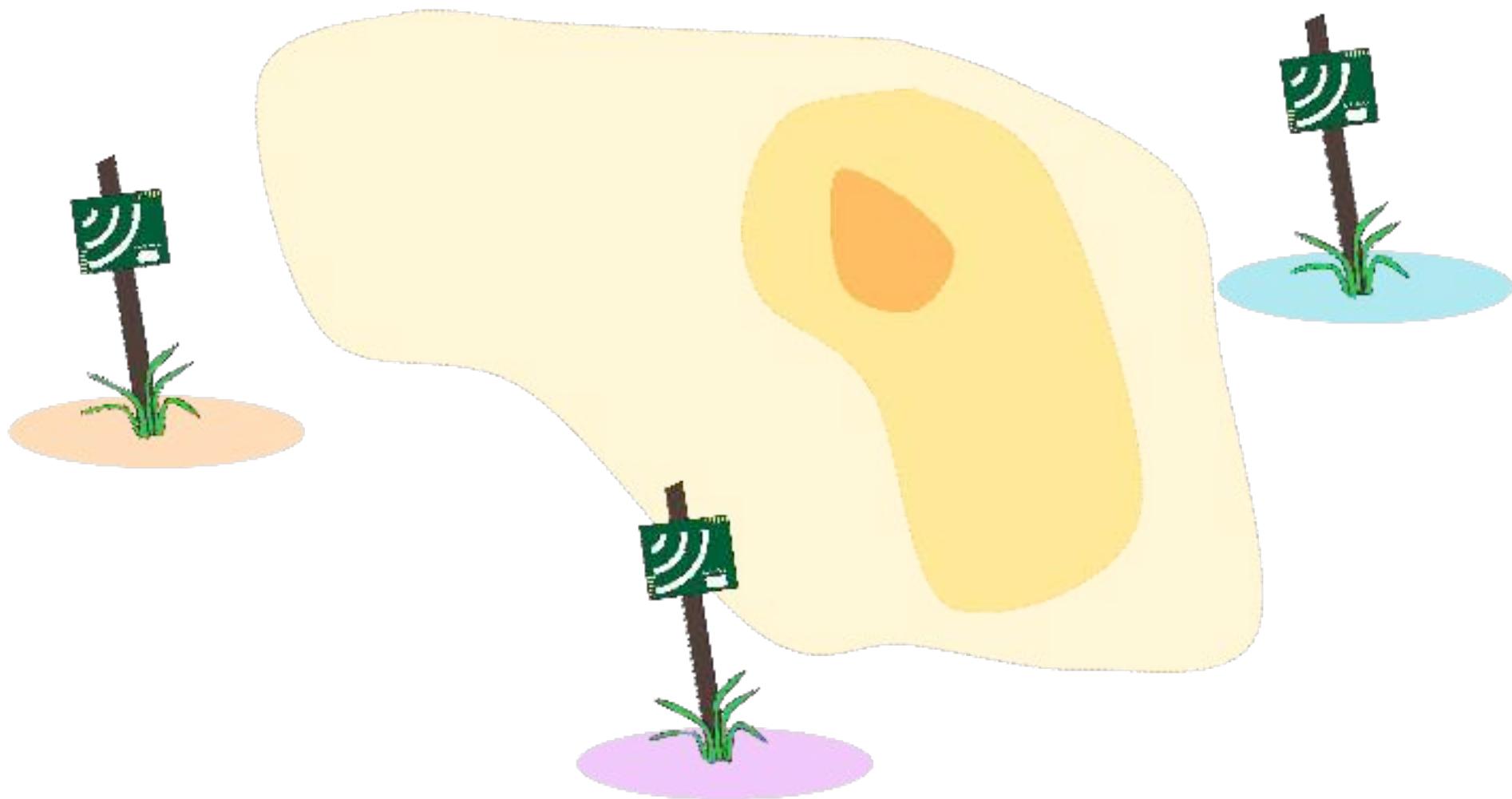
# At the lab



# At the lab



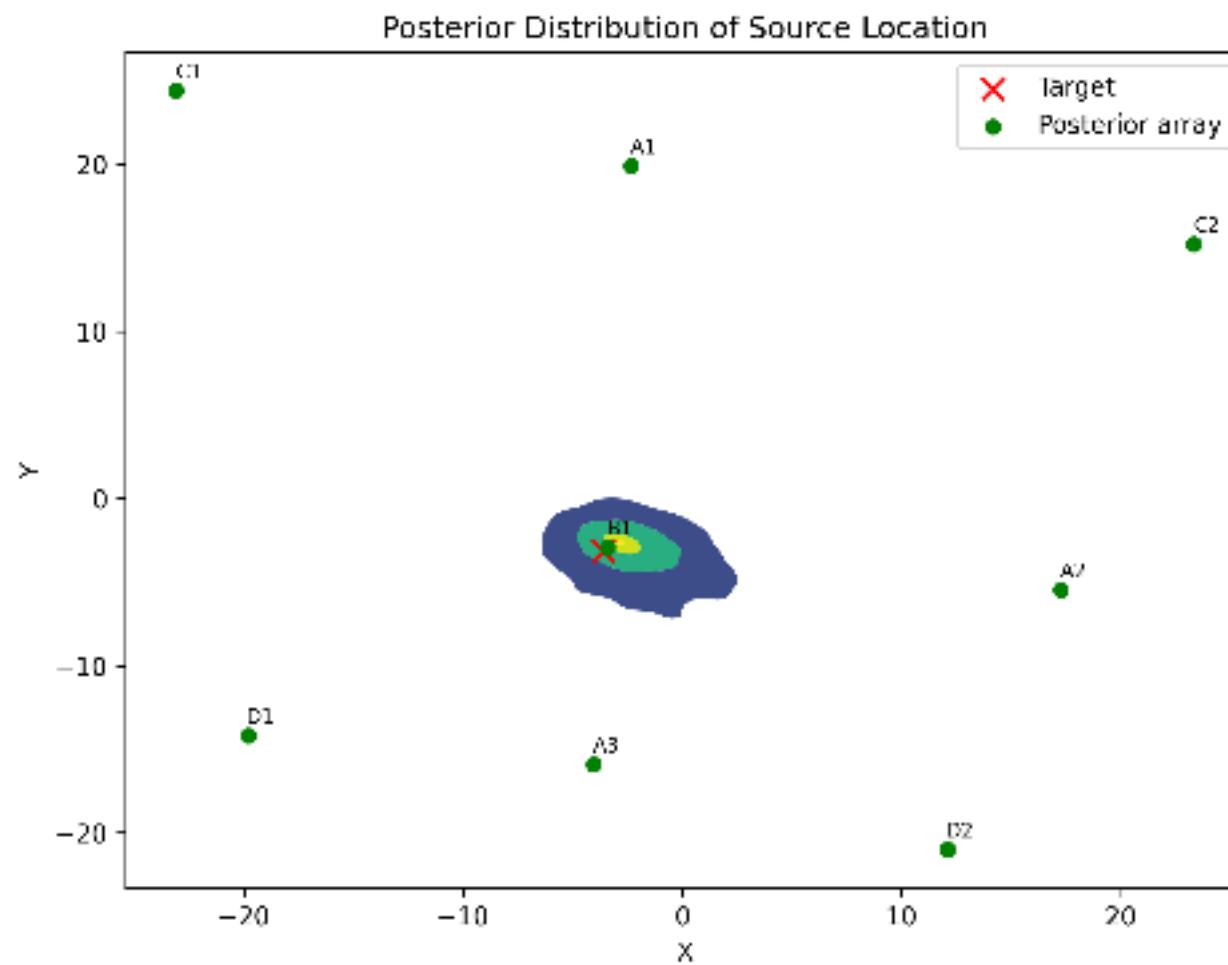
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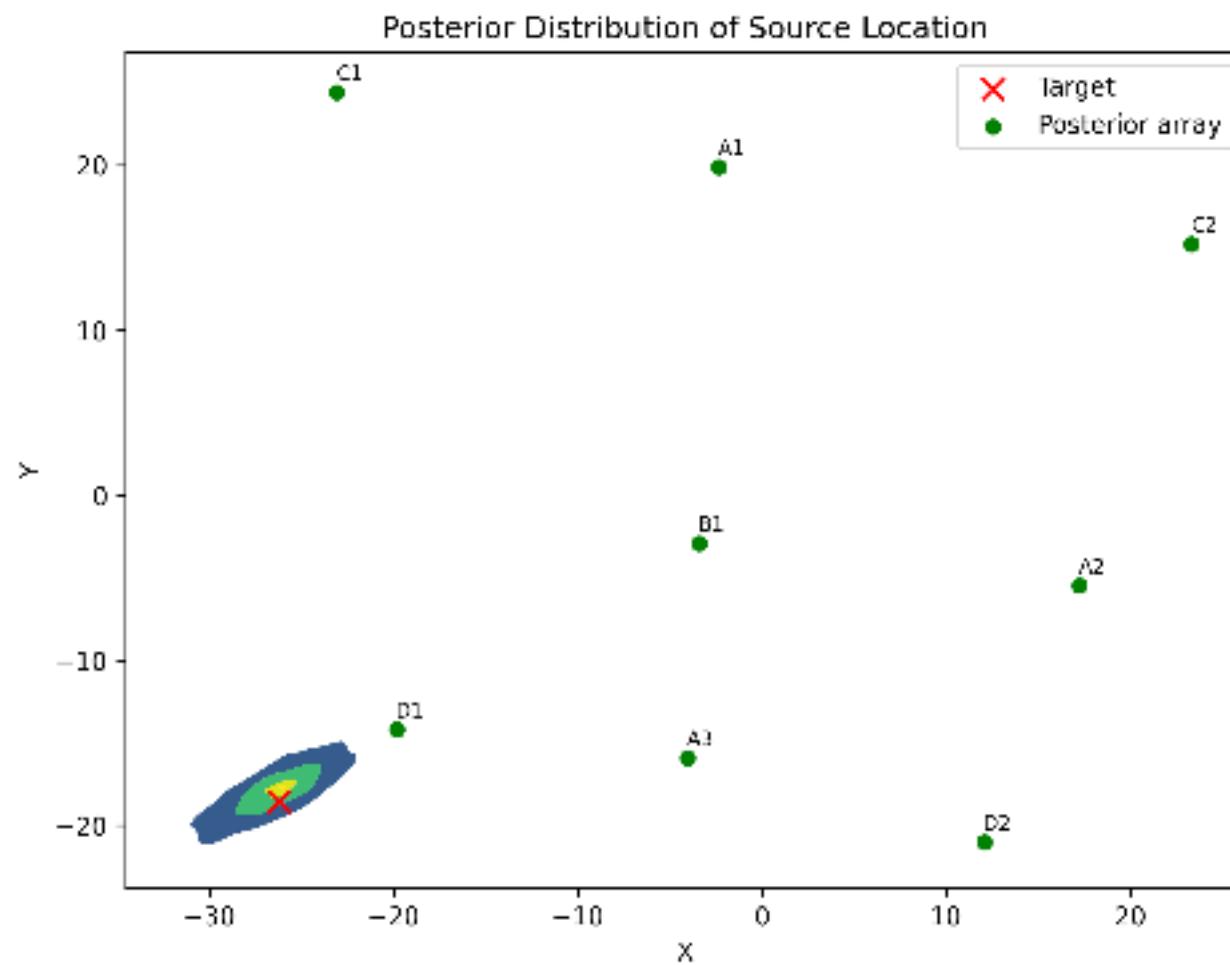
# Sound source localization



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# Localizing recorders



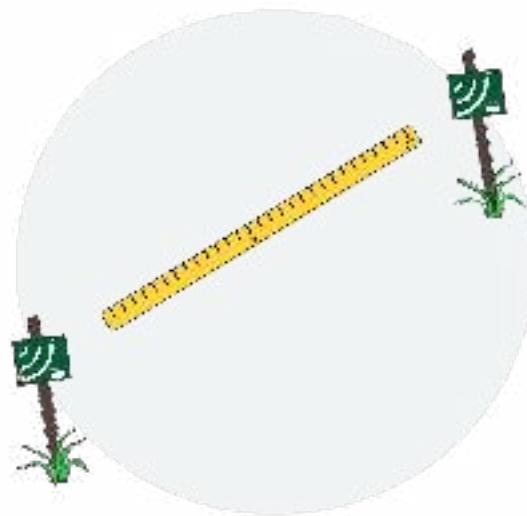
# What we already know



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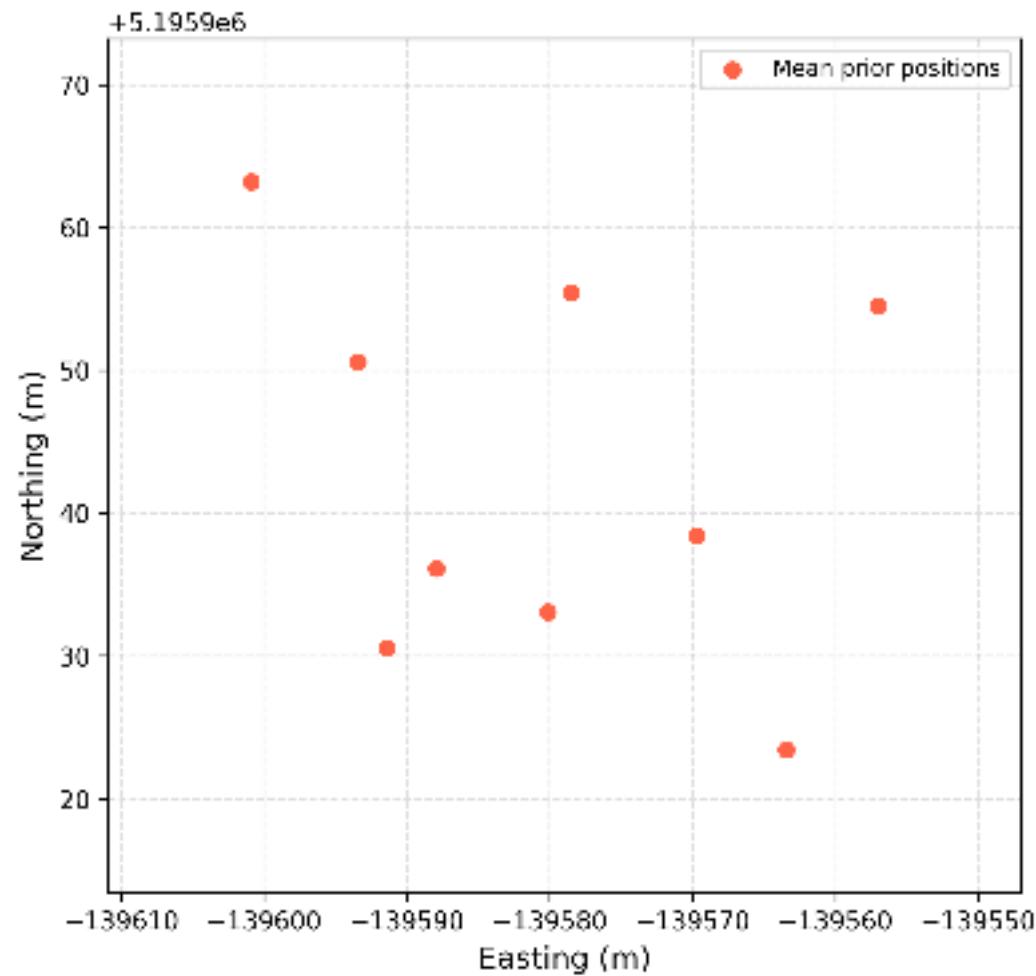
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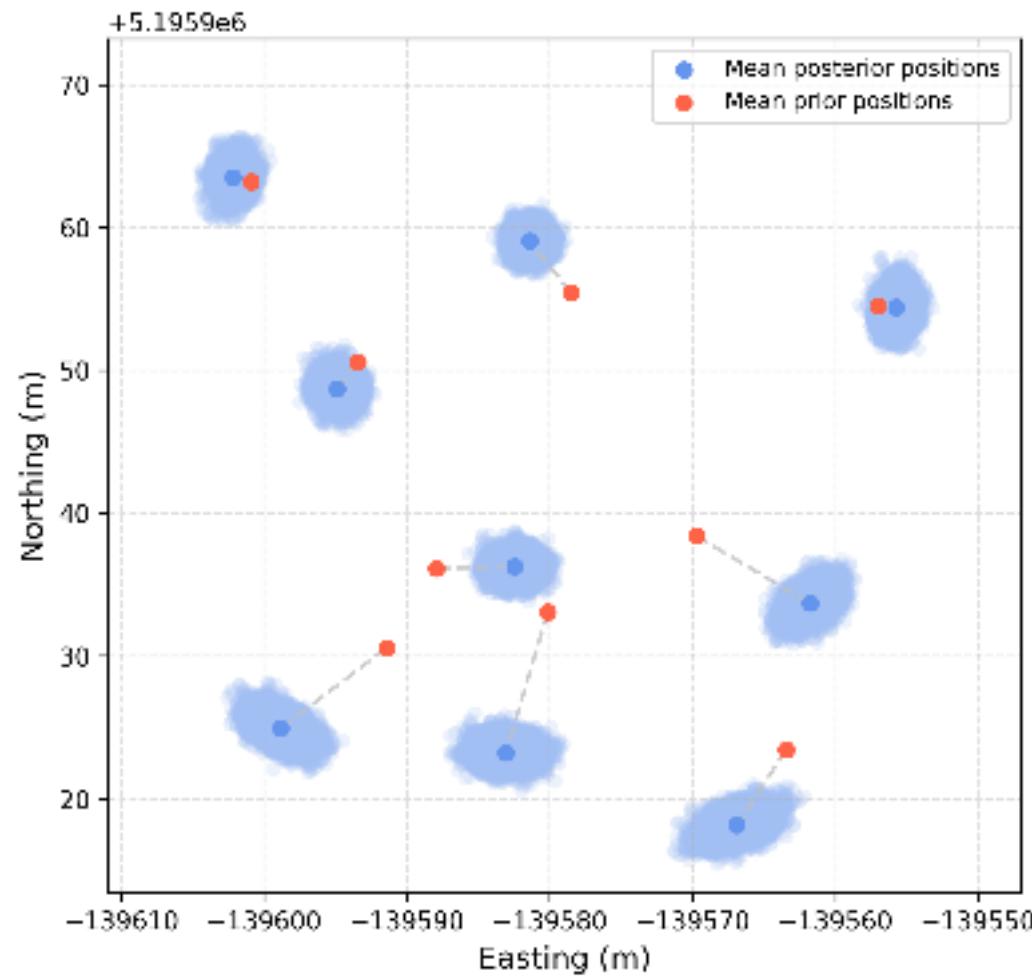
# How we combine informations



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# How we combine informations



# Mapping behaviors



# Linking sounds to landscape



# References

- Dutilleux, Guillaume, Brett K Sandercock, and John Atle Kålås. 2023. “Chasing the Bird: 3D Acoustic Tracking of Aerial Flight Displays with a Minimal Planar Microphone Ar.” <https://doi.org/10.1080/09524622.2023.2241420>.
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