

# Colibri: A Toolkit for Rapid Prototyping of Networking Across Realities



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# Motivation

Specific requirements of object synchronization in (our own) CR prototypes:

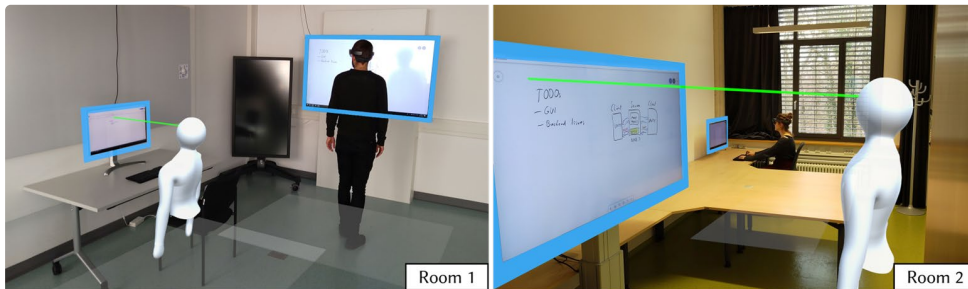
- > **Low Barrier:** Ease of setup & development
- > **Multi-Platform:** Unity & Web
- > **Lab Conditions:** Low Latency, High Throughput



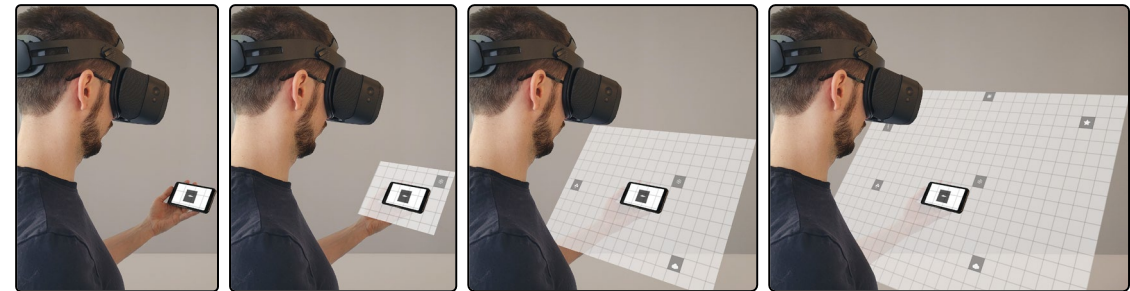
Hubenschmid et al. (2021)



Hubenschmid, Wieland, Fink et al. (2022)

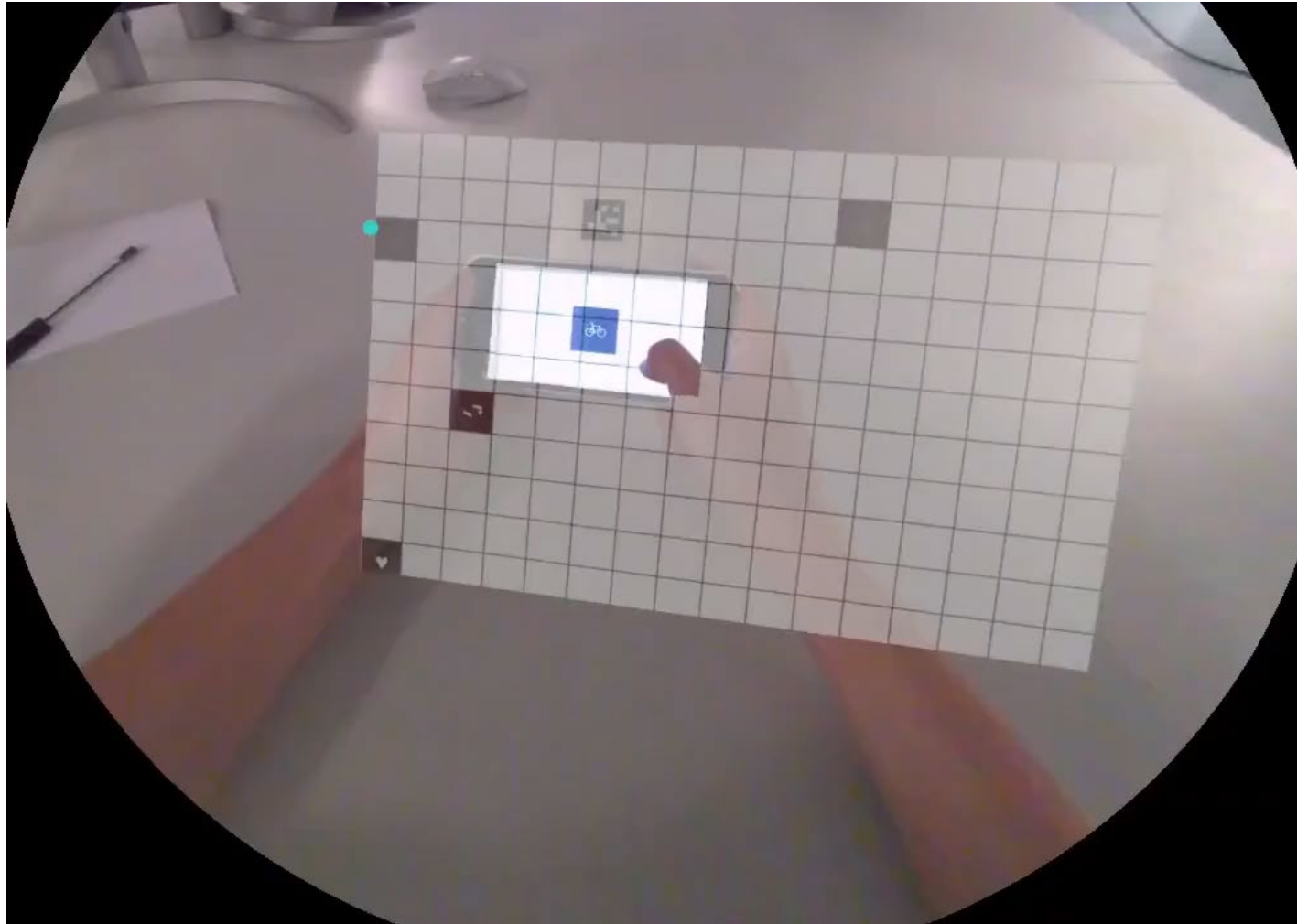


Fink et al. (2022)



Hubenschmid et al. (2023)

# Example: Low Latency Object Synchronization



Played at  $\times 0.25$  speed

<https://www.youtube.com/watch?v=p6cHwLxHWJg>

# Colibri (Unity)



## Installation

Add Colibri package\*



## Configuration

Specify Colibri Server



## Synchronization

Attach Colibri script

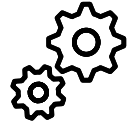


# Colibri (Unity)



## Installation

Add Colibri package\*



## Configuration

Specify Colibri Server



## Synchronization

Attach Colibri script



# Colibri (Unity)



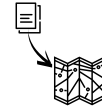
## Installation

Add Colibri package\*



## Configuration

Specify Colibri Server

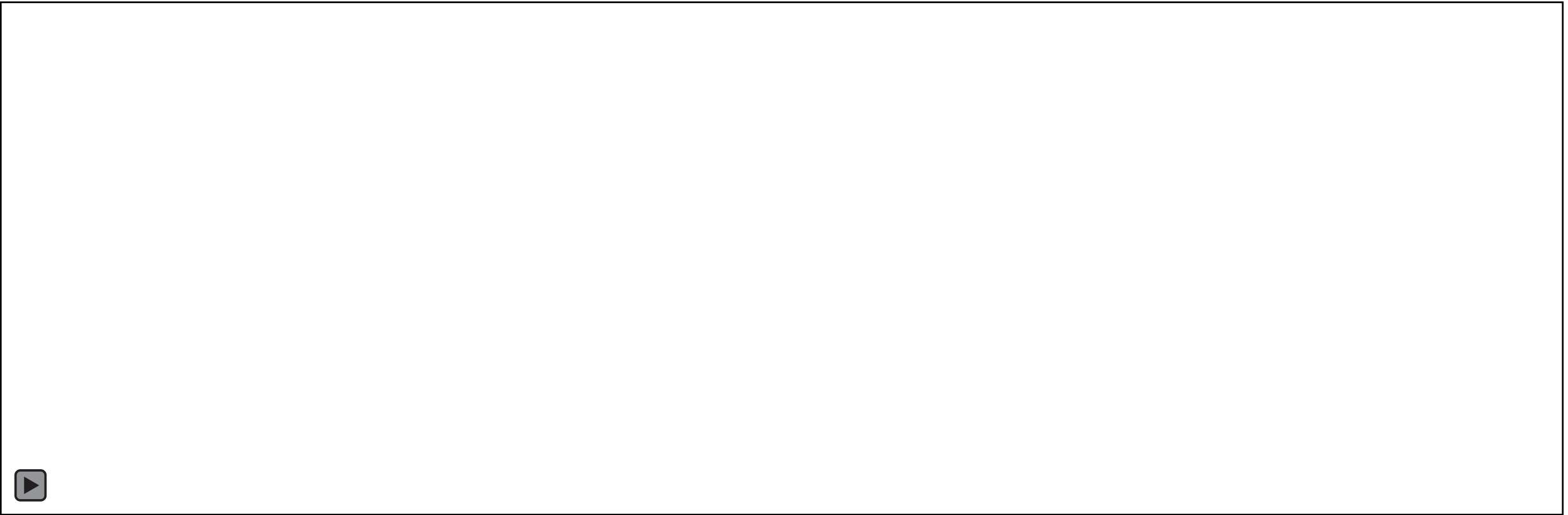


## Synchronization

Attach Colibri script



# Demo



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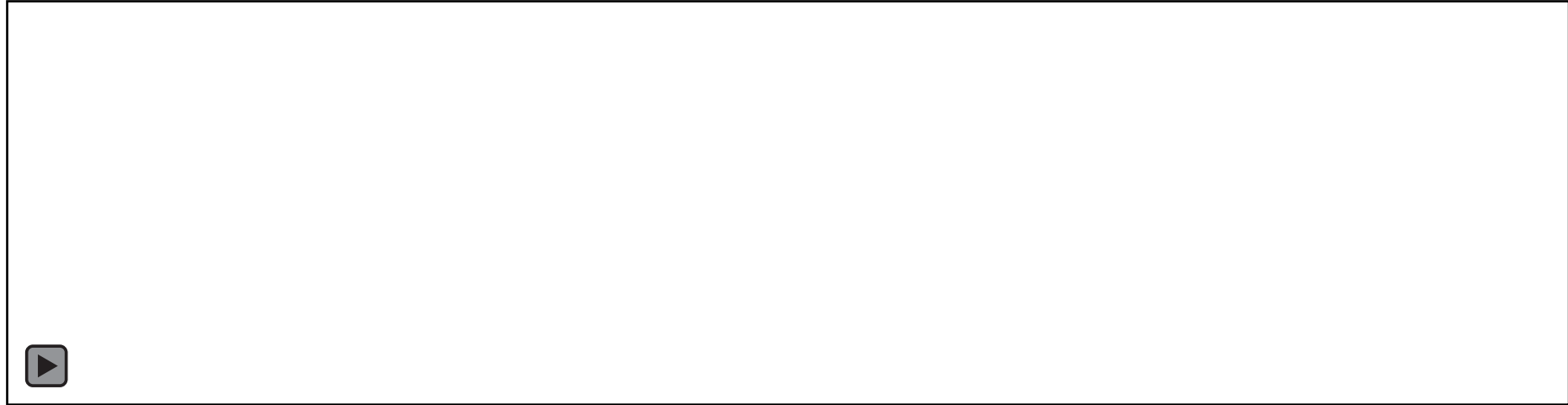
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Available as  
open-source library at:

[github.com/hcigroupkonstanz/Colibri/](https://github.com/hcigroupkonstanz/Colibri/)

