

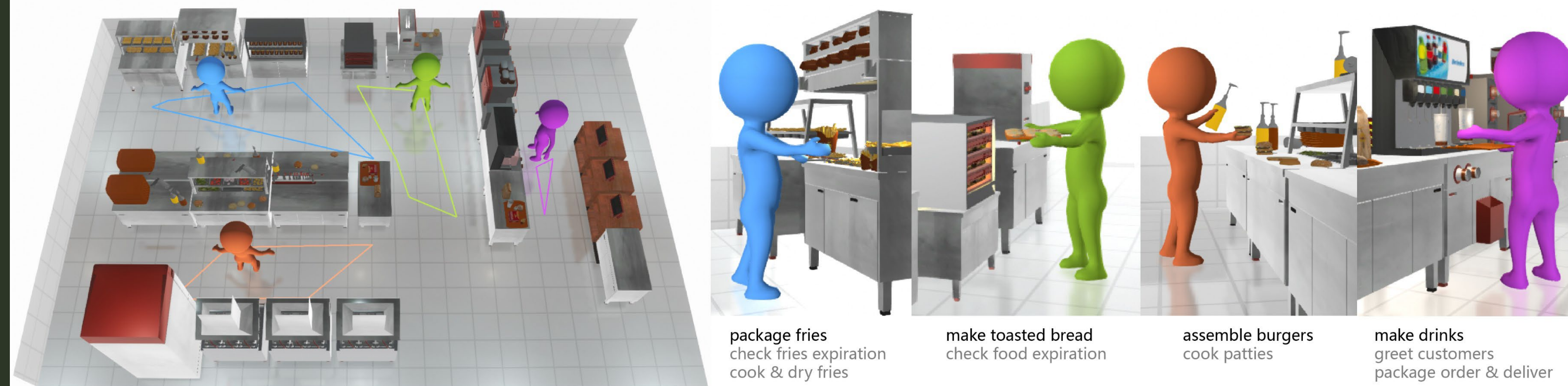
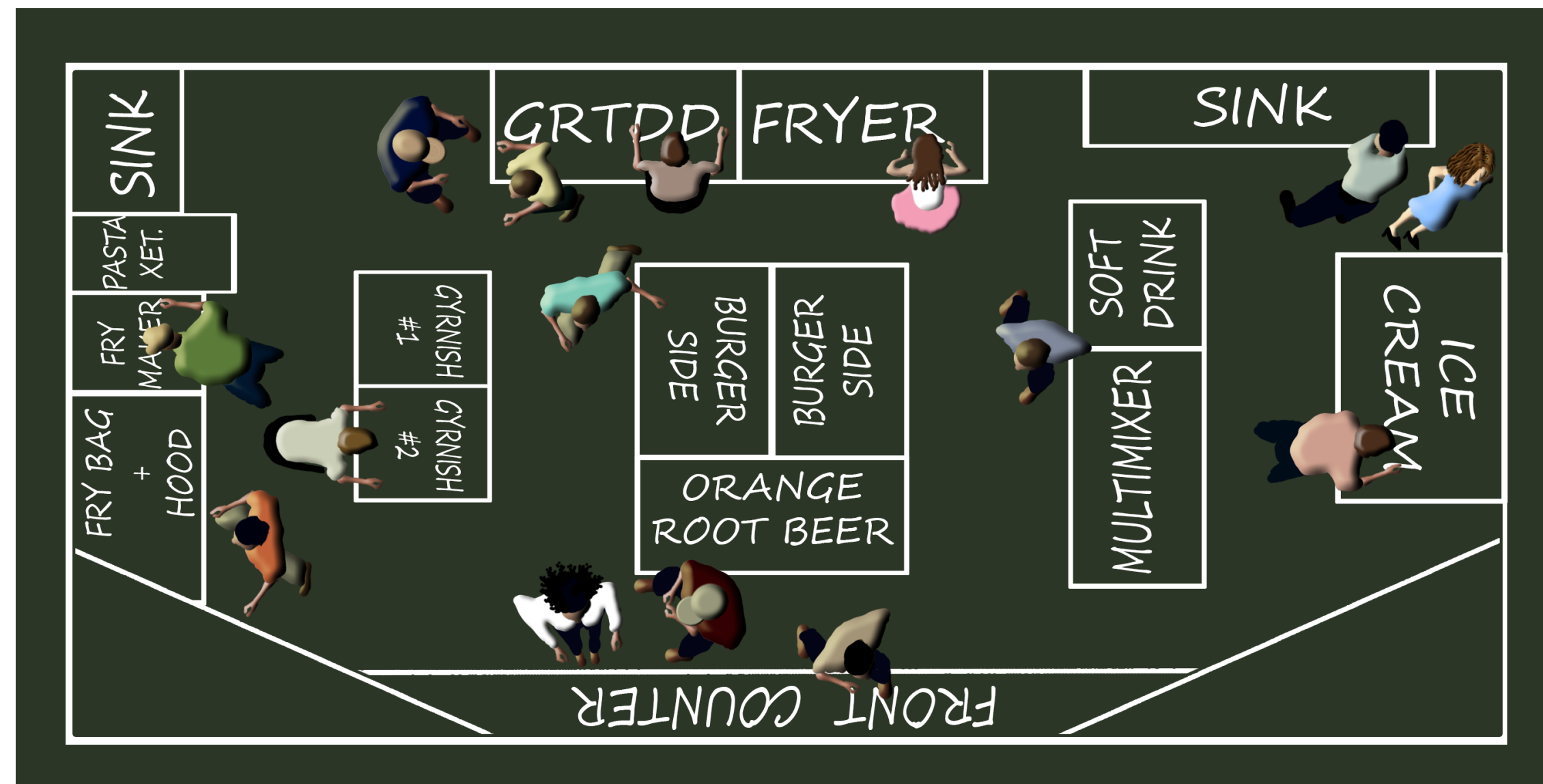
Yongqi Zhang
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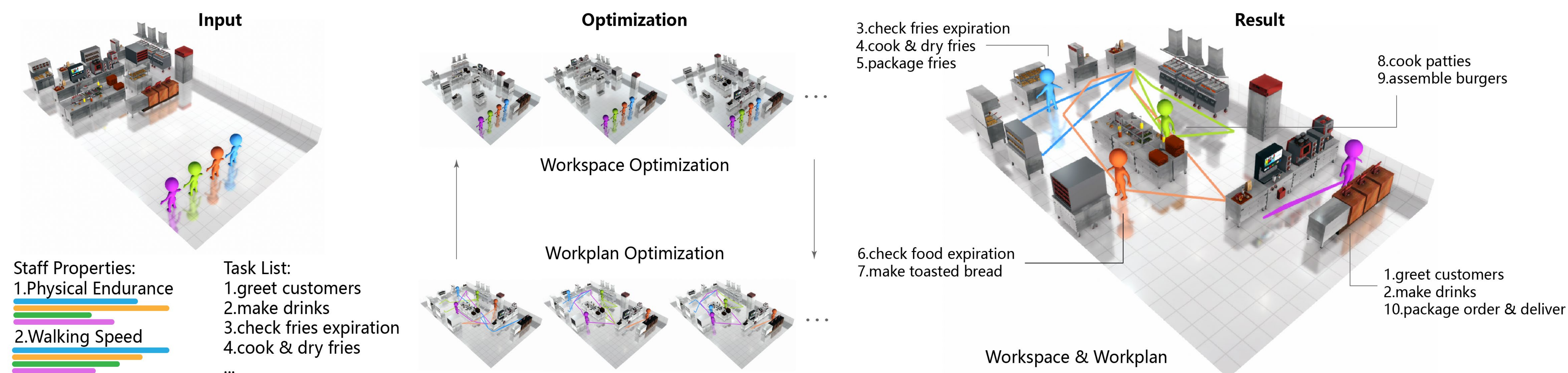
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George Mason University

Introduction



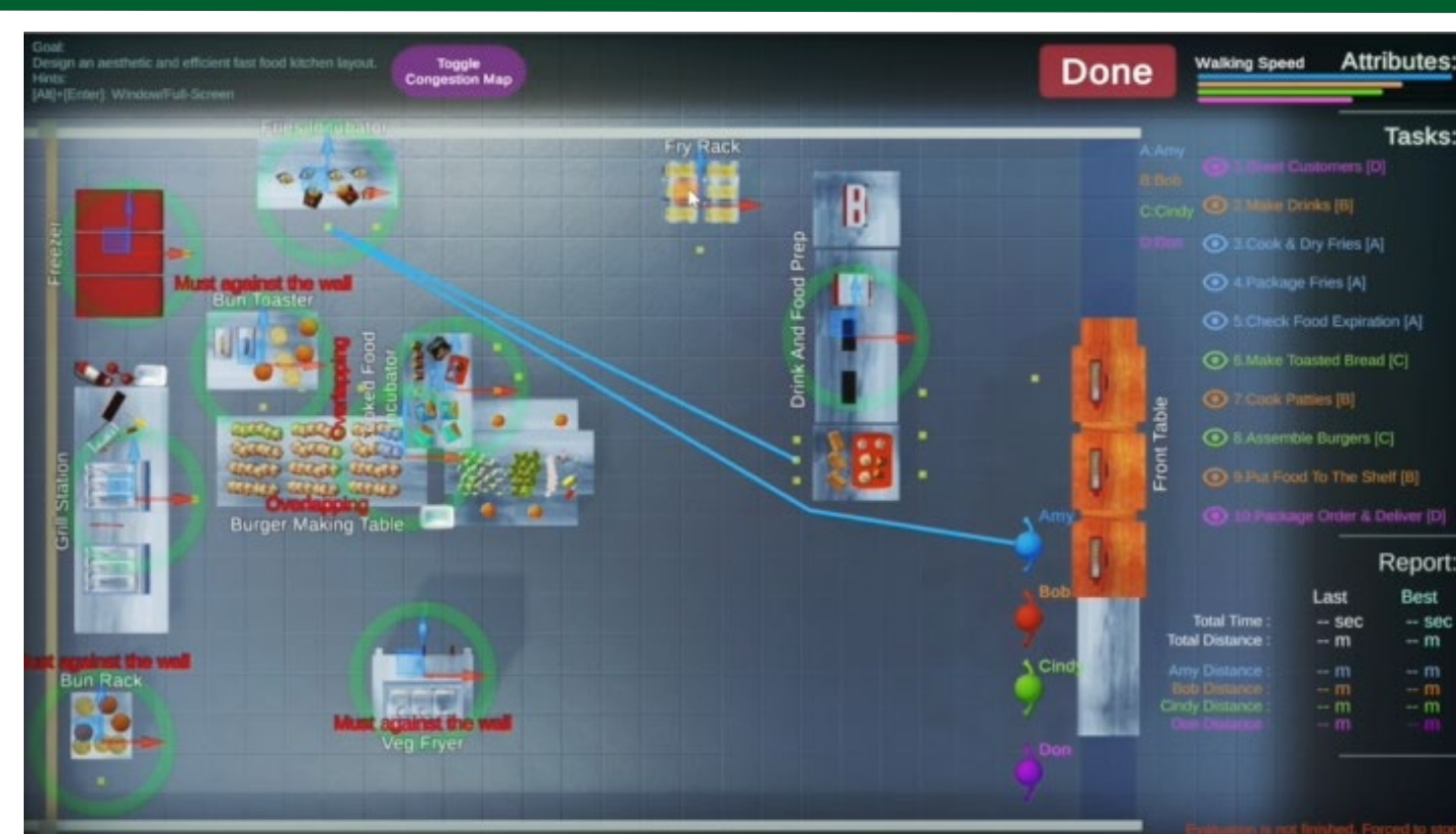
How to design a workplace that supports team collaboration?

Approach

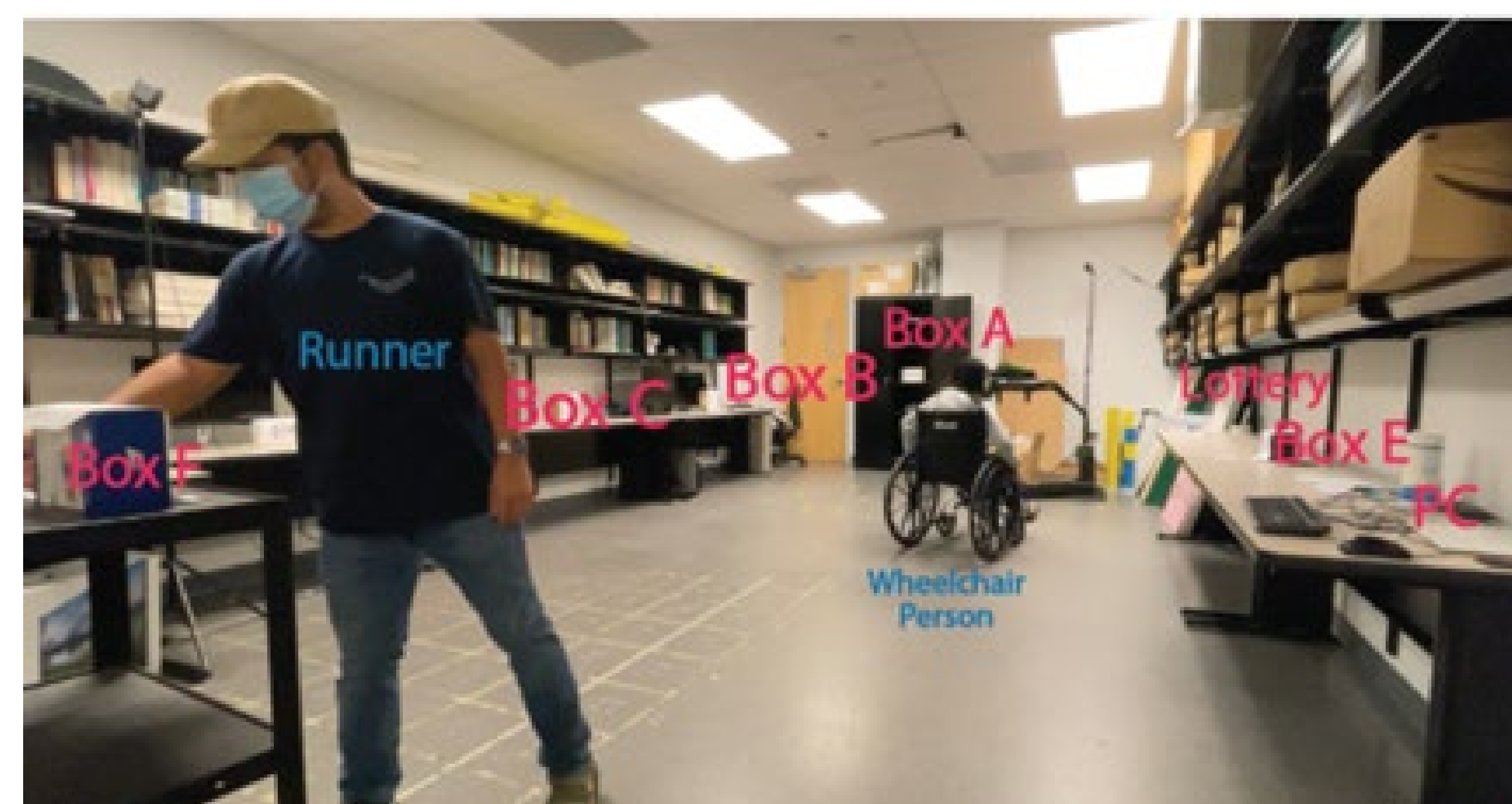


Considering Three Key Costs: Performance Costs, Workload Costs, and Layout Costs

Real World Experiment Result



AnyLogic Simulation Time (s)	Unity Simulation Time (s)	Total Walk Distance (m)	Total Body Rotation (deg)
Human 89(5)	106(6)	61.45(7.00)	1,202(156)
Ours 85(3)	101(4)	54.60(5.15)	1,025(131)
p-value 0.014	0.014	0.016	0.007



18 pairs of participants simulated working in a mini warehouse

Real-world Workplace Simulation

Workspace Design Experiment

Results

