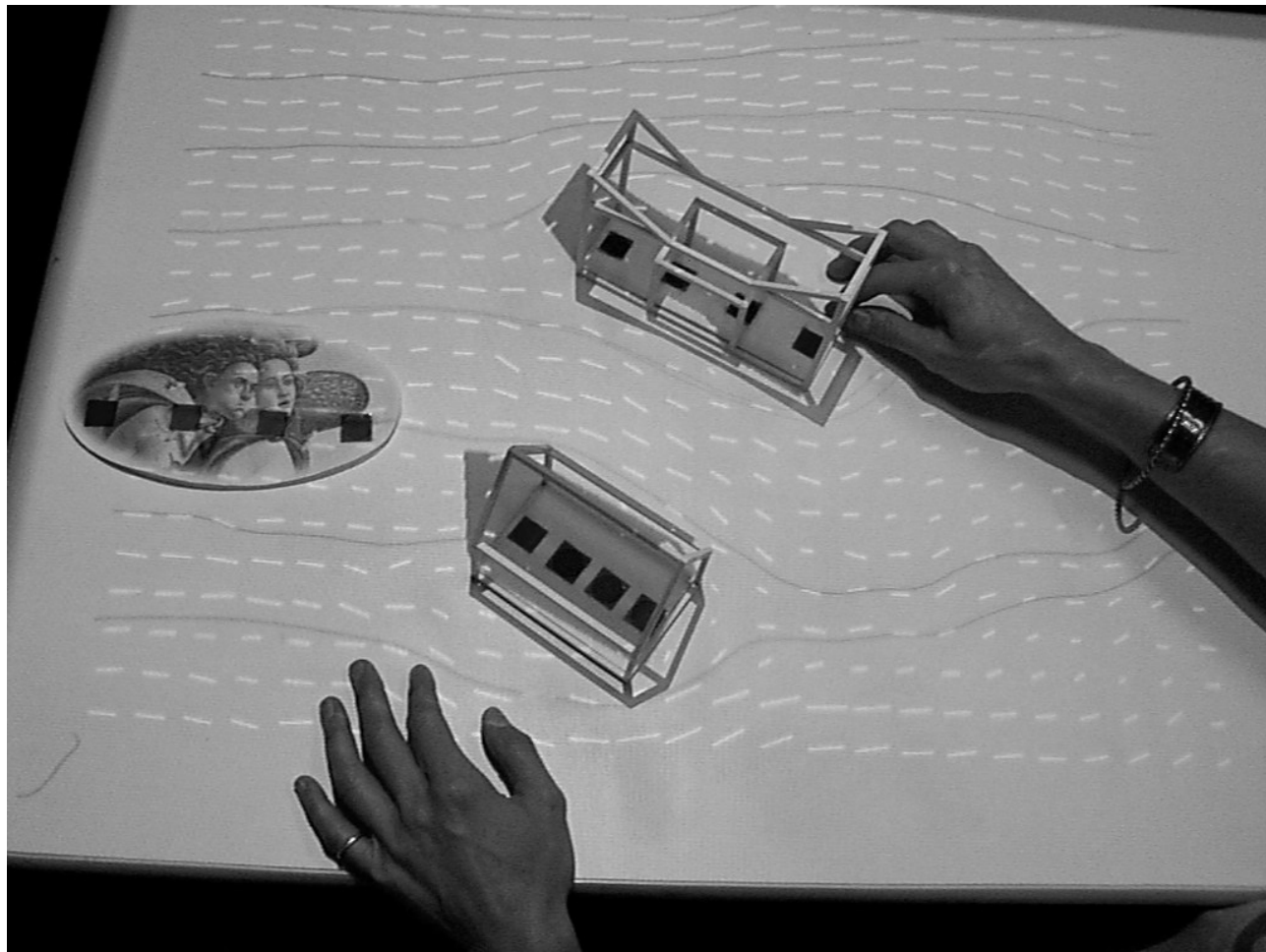# Distributed & Asynchronous Collaboration on the Actuated Workbench

Dan Maynes-Aminzade & Gian Pangaro
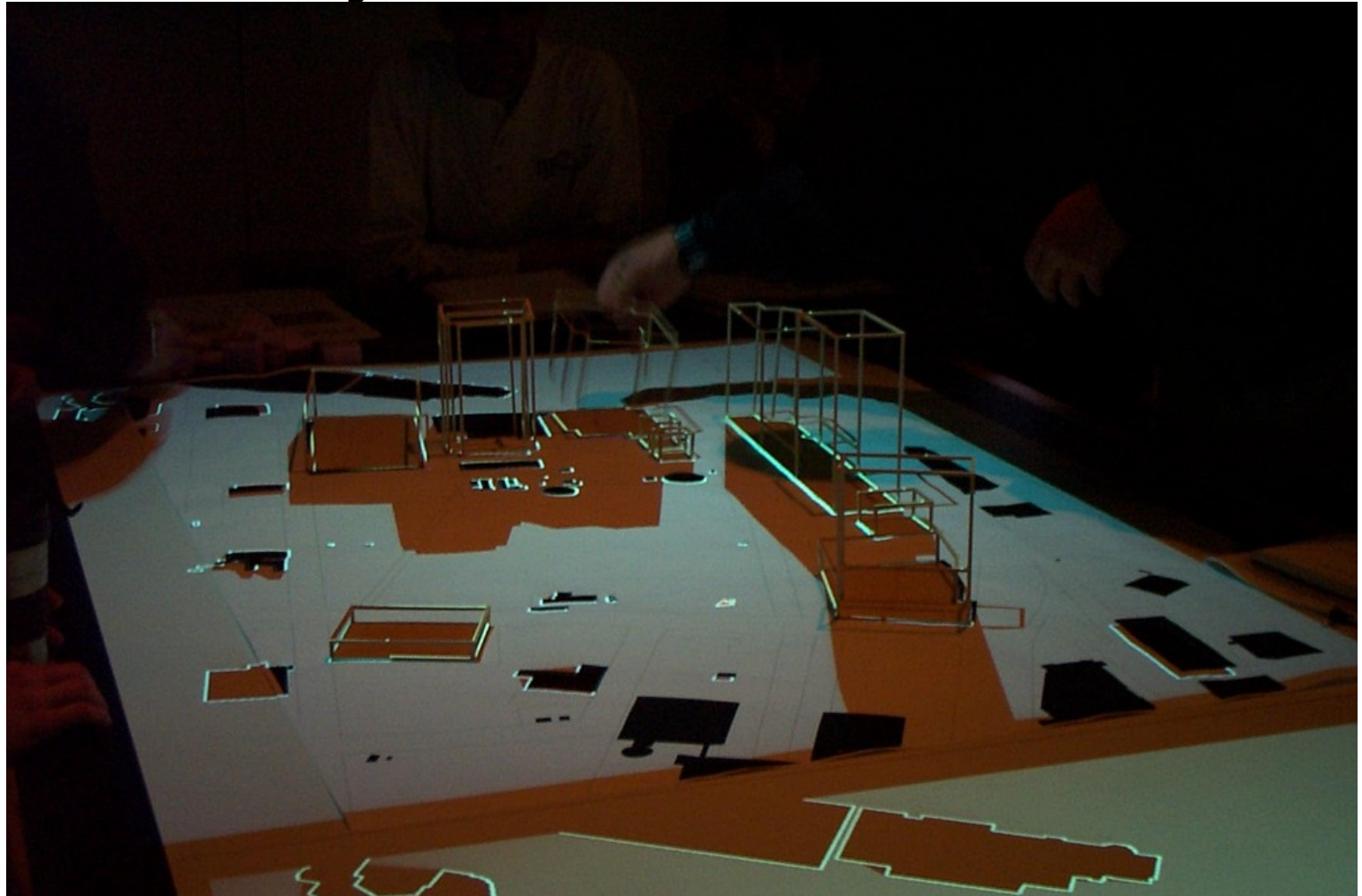
Platform: Interactive Sensing Surfaces
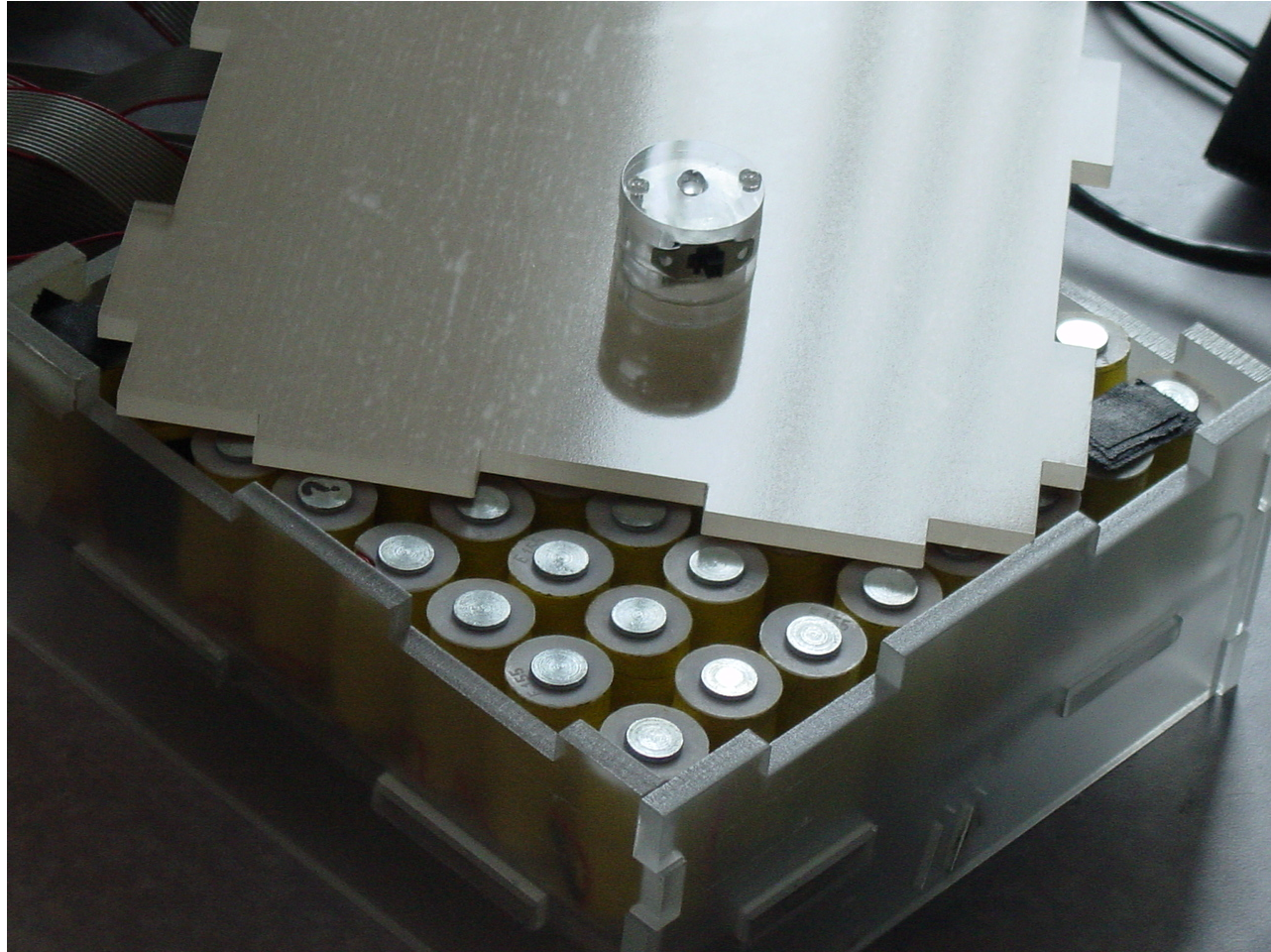
Goal: Distributed Collaboration on Interactive Workbench
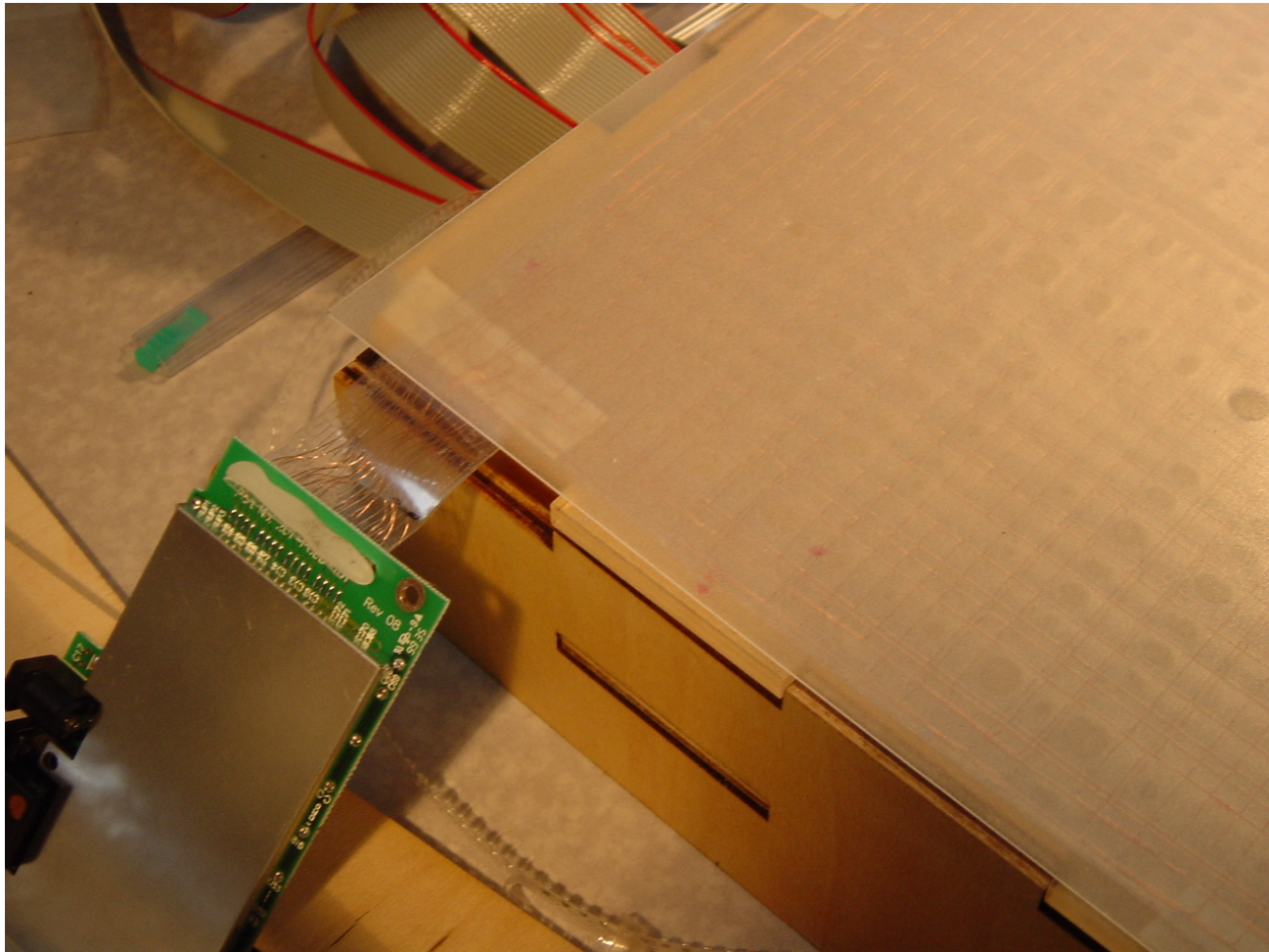
Problem: Lack of Physical Synchronization

Solution: Actuated Workbench

Problem: Infrared Sensing Violates Design Goals

Solution: Integration with Passive RFID Tracking

Zowie Tag Technology

Integration with Electromagnet Array

New Table Merges Passive Sensing & Passive Actuation

Scenarios for Collaboration

- Distributed (Different Places) Actuation used to synchronize physical configurations in real-time

- Asynchronous (Different Times) Actuation used to record and play back history of interactions

Video of New Actuated Workbench

Future Work

- Full-fledged collaborative applications
- Other feedback channels:
  - Projection
  - Audio
  - Vibration / Levitation