Techniques for Interactive Audience Participation

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Techniques for Interactive Audience Participation
The Challenge

- Create interactive entertainment experiences for large audiences
  - Competitive or cooperative
  - Intuitive interaction
  - Simple props
  - Non-invasive technology
  - Inexpensive hardware
The Experiment

- Built three computer-vision based techniques for audience interaction
- Tested these techniques on groups of 150-600 participants
- More than 30 test sessions
Our Techniques

- Audience Movement Tracking
- Beach Ball Shadows
- Laser Pointer Tracking
Audience Movement Tracking
Audience Movement Tracking
Audience Tracking Technique

LEAN LEFT

CENTER

LEAN RIGHT

Questions:

Audience Tracking Sample Video

Audience Movement Tracking

Pong Game
Beach Ball Shadows
Beach Ball Shadows
Beach Ball Shadows Technique

Beach Ball Ball Missile Command
Laser Pointer Tracking

Laser Painting
Laser Pointer Tracking
Laser Pointer Tracking Applications

- Laser painting
- Whack-a-Mole
- Uncovering Hidden Images
Laser Pointer Tracking Applications

- Live trivia and polls
- Connect-the-dots
Laser Pointer Tracking
Sample Video

Laser Pointer Tracking

Laser Painting

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Show Example