Tangible User Interfaces Laboratory

Welcome!
Tangible User Interfaces Laboratory

The Class

- **Explore Tangible Interaction**
  - TUI Instances
  - Conceptual frameworks
  - Latest research

- **Learn Techniques for Analyzing, Designing, and Implementing TUIs**
  - Specification languages
  - Low fidelity prototyping
  - Physical IO: RFID, Microcontrollers, Computer Vision

- **Develop New Ideas**
  - Teams of 3-4 Idea generation
  - Concept development: from idea to a functional prototype
Informal Science Learning and Museums
Class Preparation

- Saturday 2/9
- Monday 4/14
- Materials
- Blog
- Website
Tangible User Interfaces Laboratory

• Milestones:
  – 2/13 Technology presentation
  – 2/20 Project idea decision
  – 3/10 Conceptual prototype presentation
  – 3/31 Proof of concept presentation
  – 4/28 Final presentation
  – 5/5 Documentation
Goal for Today

• What is Tangible Interaction?
Tangible User Interfaces

- Give physical forms to digital information, make bits directly manipulable with two hands.
- Support: Multi-user collaboration Tangible thinking Distributed cognition
Physical Control Panels
Marble Answering Machine

Figure 6.1 Incoming messages await...
Figure 6.2 The user listens to a message...
Figure 6.3 ...the user moves the message
Figure 6.4 ...to each roommate's in-tray.
metaDesk
Illuminating Clay
SenseBoard
Tangible Video Editor
Tangible Query Interfaces
• **PingPongPlus**
• **Actuated WorkBench**