Final Projects Ideas and Guidelines

Lecture #2: A Word on Final Projects
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Project Goals

- Apply knowledge from class lectures and discussions
- Developing a significant piece of software
- Begin master's thesis or PhD dissertation research
- Publish papers

Project Guidelines

- 5-6 weeks to do the project
  - scope should fall within timeframe
  - milestones should sync up with project status report days
- Should have some form of evaluation
- Solid code design for reuse
- Research component

Project Proposal

- Must get proposal approved by professor
- Proposal should include
  - introduction to problem
  - related work
  - what you are going to do
  - what are the novel components
  - how you are going to do it (i.e., strategy)
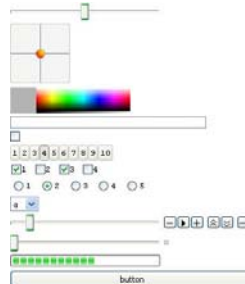 - measure of success

Project Ideas – Pen-based Shader

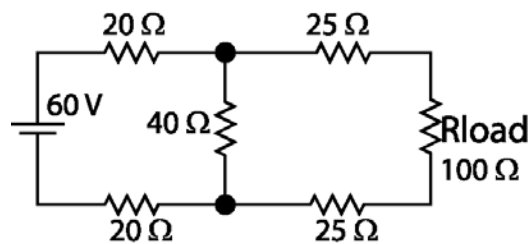# Project Ideas – Mathematica 6

Sketching Interface to Mathematica

Project Ideas – IPhone/IPad

- Create a cool touch-based app for the IPhone or IPad

Project Ideas – Circuit Tool

- Sketch out circuit diagrams
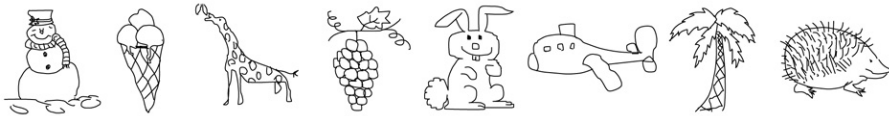
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Project Ideas – Interactive eBooks
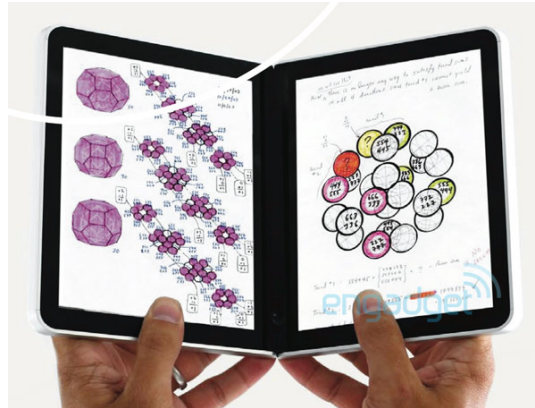
Drawing Recognition

How Do Humans Sketch Objects?
ACM Transactions on Graphics (Proc. SIGGRAPH 2012)
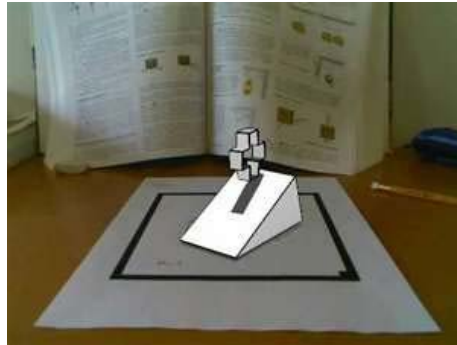**Mathias Eitz, James Hays and Marc Alexa**

Can we do better?

AR Sketching

- Sketch objects then construct 3D representations in AR (Physics education)

Bergig et al. 2009 – Paper at ISMAR 2009

Project Ideas – Paper Projects

- Implement a paper and make improvements
    - Sketch
    - Teddy
    - Ladder
    - etc…