Final Presentation

Artem Dementyev
3D Design for Rapid Prototyping and Rendering
Spring 2014
Goals

• Explore
  - fabrication with different materials, especially flexible, stretchable and rigid.
  - Flexible electronics and 3D printing

• Learn rendering

• Practice with Rhino

• Learn more aesthetic design
Printable sensors / electronics + Mechanical parts
What I learned

• Difficult to design wearable devices
  ‣ Shape has to confront to different anatomies
  ‣ Can’t be too rigid.
  ‣ Different materials have to be combined: structure and tension
  ‣ Round shapes, no sharp corners

• FormLab printer is good for semirigid devices

• Flexible electronics can be designed rapidly together with mechanical parts.
Interesting points

• Showing what is important, even if it is not stylish. Designing to communicate an idea.

• Trade-off between functionality, style and comfort

• Build on what was done before.

• Trial and error with rapid prototyping works well for organic shapes. No way to know in advance.
What I didn’t learn

• Photo realistic rendering
• Parametric design
• Gears and moving parts
• 3D animations