6.943J: How to Make (almost) Anything

- joint class with **MAS.863 & 4.140**, taught every fall
  - lectures led by Prof. Neil Gershenfeld
  - EECS section led by Gavin Darcey, EECS Technical Instructor

- 4 class sections: **MAS, EECS, Architecture, Harvard**
- ~18 students per section
- historically oversubscribed, over 100 undergraduate and graduate students across campus attend first lecture and submit application
- lottery system creates sections with ranges of student background and experience

- all 4 sections meet together once/week for lecture
- sections perform weekly assignments in respective workshops
- 3 - 9 - 6 unit distribution (18 total)
Fall 2016 Example Projects

- 3D brain map, with networked lobes communicating through embedded custom PCBs

- Capacitive-touch, laser-cut ukulele

- Personally fabricated USB flash drive with gesture-based security
Fall 2016 Trial

- **6.S976**: pilot EECS section based in Engineering Design Studio
  - 12 students - 8 EECS, 2 MechE, 1 Materials Science, 1 Sloan
  - 7 undergraduates, 5 graduates
  - EECS section kept deliberately small for test run

- course fosters communal environment - laboratory resources and class concepts used frequently in future semesters with continuing classes, UROPs, research

- course focuses on **topics which are traditionally acquired through self-taught learning, yet necessary to perform effective research**
Permanent EECS Section: 6.943

- 14 weekly topics are directly related to EECS and supplement department headers and AUS subjects
  - e.g. PCB design, component selection, web design, embedded systems, 2D & 3D CAD, 3D printing
  - students design and fabricate in-house ~1 PCB per week, learn to assemble using surface-mount devices
  - students receive exposure to variety of machining tools, materials, and techniques - culminating with final project

- full syllabus available at: [eds.mit.edu/classes](http://eds.mit.edu/classes)