Welcome and Overview of School of EECS

EECS Quick Summary

- Top Research, Engineering, and Computer Science University in Oregon
- Research expenditure of $6-7 million/year ($6.3M in 2008)
- 40 Faculty (including 3 new hires), 8 Teaching Faculty, 8 Adjuncts/Visiting Professors
  - 8 IEEE Fellows
  - 3 ACM Fellows
  - 1 American Assoc. for Artifical Intelligence Fellow
  - 1 Institute of Combinatorics and its Applications Fellow
  - 14* NSF Young Investigator/CAREER Awardees
- Students
  - 130 Ph.D. students
  - 140 Master students
  - ~1000 Undergraduate students

* 2 to be funded

A Culture for Innovation
Incubator for Several Start-up Companies

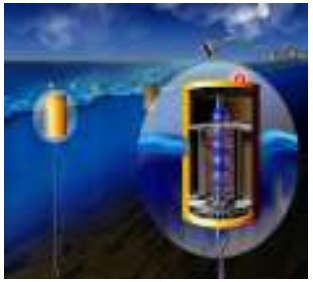
mystrands®

Inpria

redRover SOFTWARE

Smart Desktop®

Azuray TECHNOLOGIES

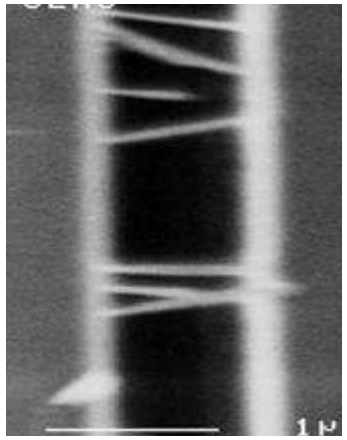


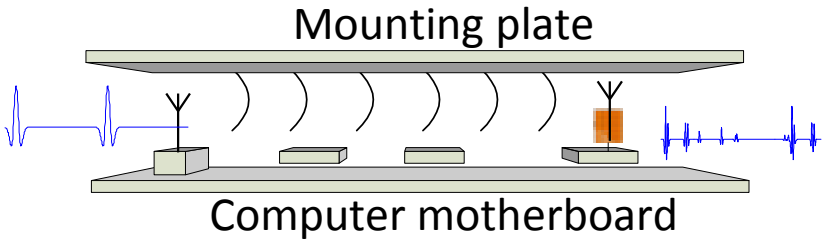
Transdigita (Peer-to-peer

Columbia Power Technologies

School of EECS: ECE Research Areas

- Energy Systems
- Mixed-Signal Integration
- Materials and Devices
- Signals, Communications, and Networking





School of EECS: CS Research Areas

- Computer Graphics & Vision
- Programming Languages
- End-User Software Engineering
- Intelligent Information Systems
- Learning and Adaptive Systems
- Open Source Development & Usability

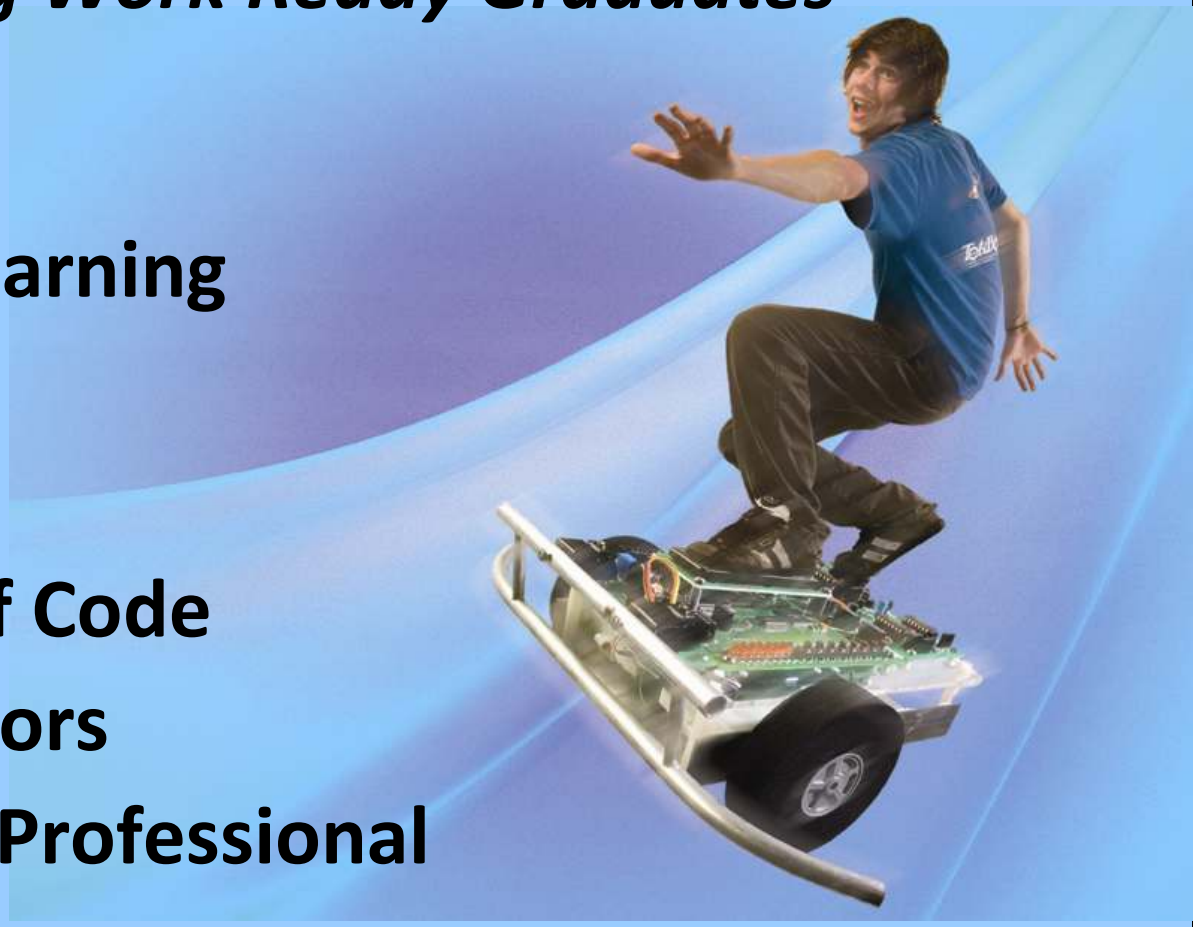
NACSE

Northwest Alliance for Computational Science & Engineering

- **Interdisciplinary research center joining 7 colleges**
  - Engineering, Science, Forestry, Business, Ag Sciences, Health & Human Sciences, (new!) Education
  - New partnership with Valley Library & Institute for Natural Resources
- **Develops new interface technology to make complex data/software fit the daily tasks of practicing scientists & engineers**
- **Continue to host international virtual organizations for natural disaster preparedness/mitigation**
  - Tsunamis, hurricanes, storm tides, floods, dam breaks, levee breaches

Inspired Curricula

Graduating Work Ready Graduates



Platforms for Learning

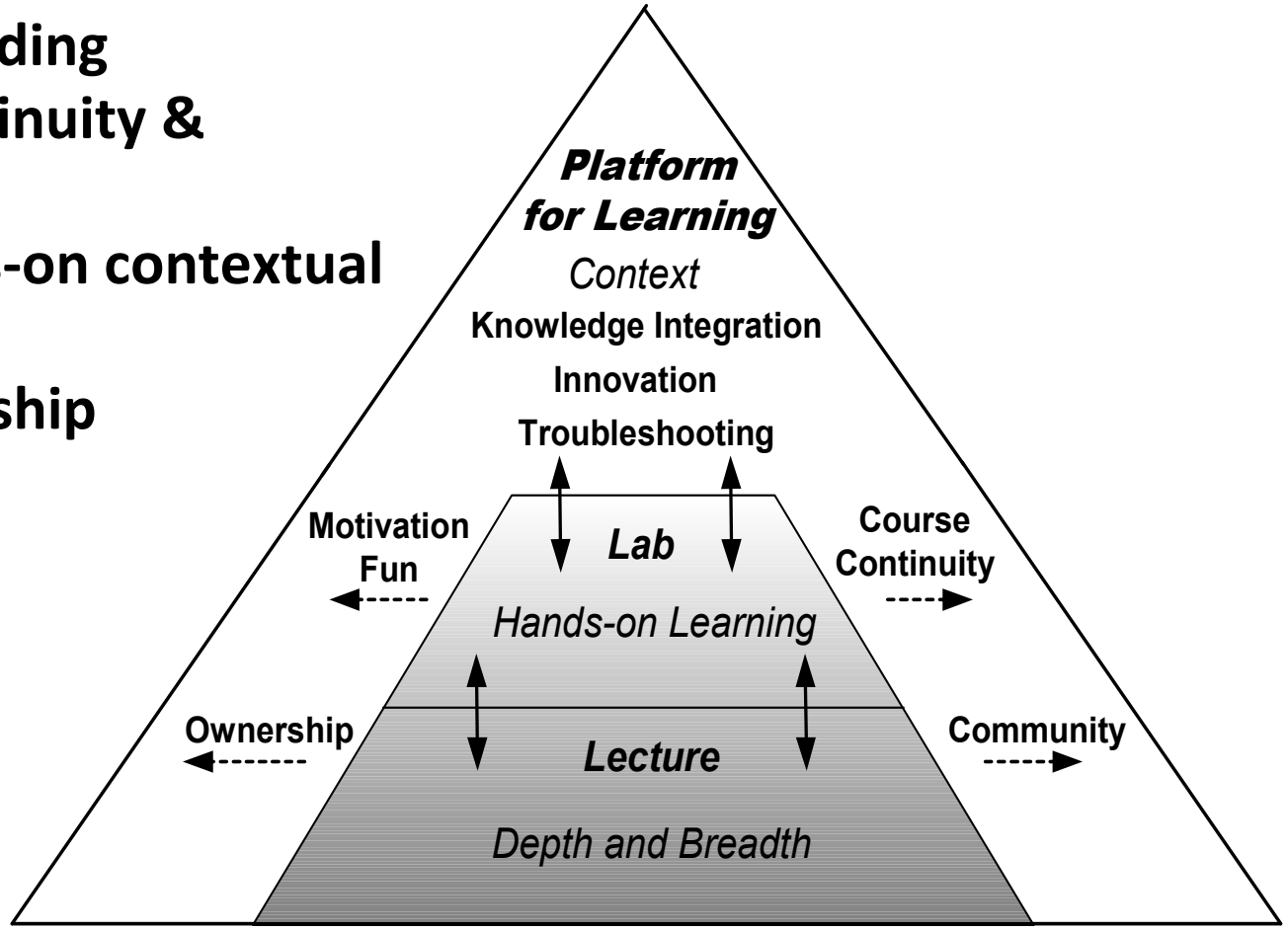
- **TekBots**
- **OSWALD**
- **Community of Code**

Freshmen Mentors

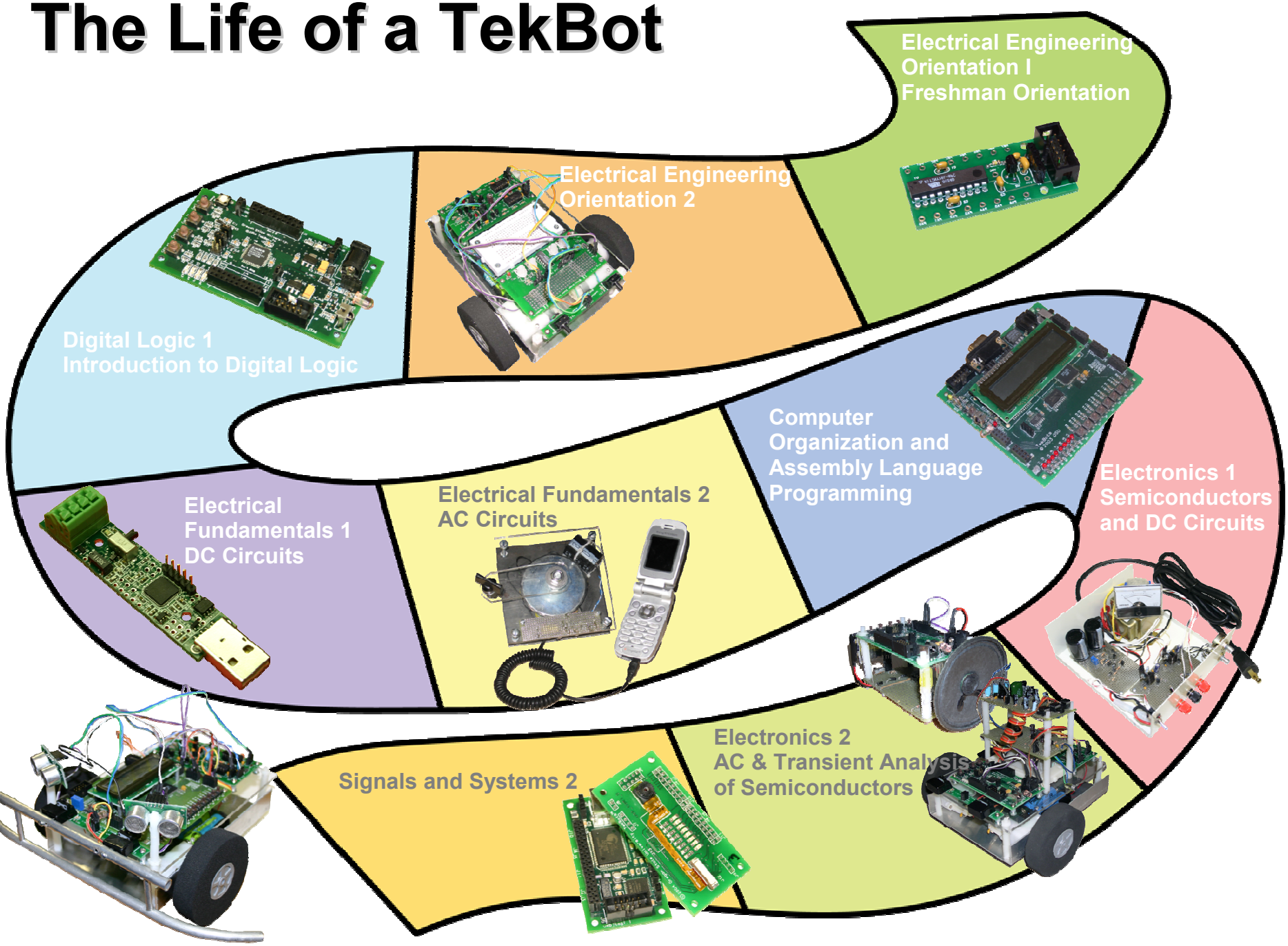
Leadership and Professional Development

Platforms for Learning™

- **Community building**
- **Curriculum continuity & integration**
- **Hands-on minds-on contextual learning**
- **Personal ownership**



The Life of a TekBot



OSWALD

Oregon State Wireless Active Learning Device

Ultra-Mobile PC (UMPC) designed by students for students

- Limited CPU, memory & storage
- Mesh networking
- 3D graphic processor
- Touch-screen

Open source platform encourages students to experiment and explore

- Adaptable to a variety of courses and student interests
- Access to unique, cutting edge hardware
- Continuity, context, and a focal point for course content
- Access to all layers - hardware to application layer
- Lowers risk of exploration through low cost device

Deployment

http://beaversource.oregonstate.edu/projects/cspfl

- Rolled out Spring 2009 in CS162 (109 Freshmen using Java)
- Wider use in EECS 2009-2010 and onward
  - Computer architecture
  - Operating systems
  - Computer networking
  - Graphics and gaming
  - Usability engineering
  - Software engineering

OSWALD Team:
Donald Heer, Carlos Jensen, Kevin Kemper, Christopher Dent
Ben Goska, Corbin Simpson, Matt Shuman

Made possible with generous support from industry partners, through part donations, technological & infrastructure, and financial support

Tektronix
Texas Instruments
intel
NSF

Public & Private Funding

PROSPERITY through INNOVATION

- **OSU College of Engineering**

  People People People

- **Private Funds to Transform the School**
  - Attract Top Students & Provide Engaging Education
  - Attract Entrepreneurial Faculty
  - Create World Class Infrastructure