

Impact of Capital Infrastructure Renovation



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ECC Meeting, Fall 2017

Sibley School 2012: Facilities

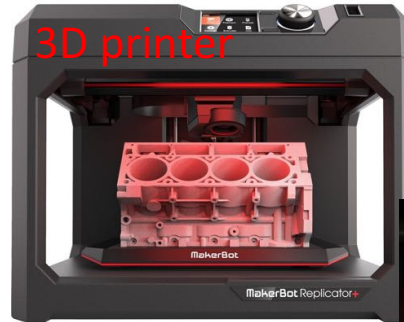
	Faculty	PhD	Research Labs	MEng	Teaching Labs	Classrooms	Project Teams
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Upson	X	X	X		X	X	X
Rhodes	X	X	X		X		
Grumman	X	X	X				
Kimball	X	X	X				
Thurston	X	X	X		X	X	
Ward			X				X

Sibley School 2012: Top Facilities Challenges

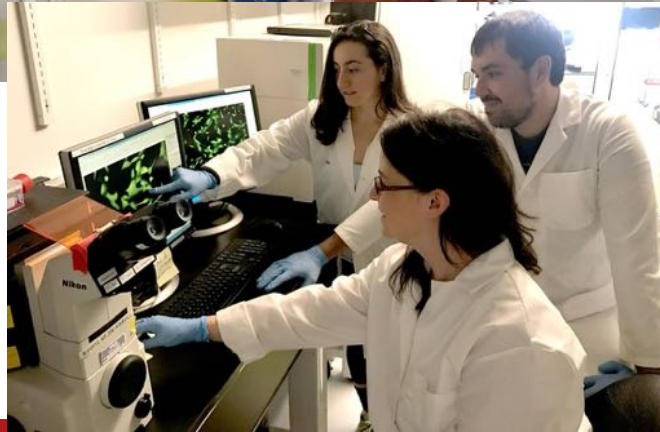
1. New type of space needed
2. Expensive to change/update
3. Facilities to enable modern teaching/learning/research



Kimball Hall Renovation (2012-14)



open benchspace



shared microscope

- open layout for collaboration, easier changes
 - MAE, BME
- shared equipment
 - microscope, chemical room
- swing space

Upson Hall Renovation 2015-17

- Key drivers
 - CS moved out to Gates
 - MAE facilities challenges
 - Renovate rather than build
- \$75M, 168K sq ft
- But funding:
 - Difficult for renovations
 - Had to leverage endowment, fund raise in parallel



The New Upson in 2017



3-5: faculty, PhD students,
MEng, research labs
biom, micro, fluids

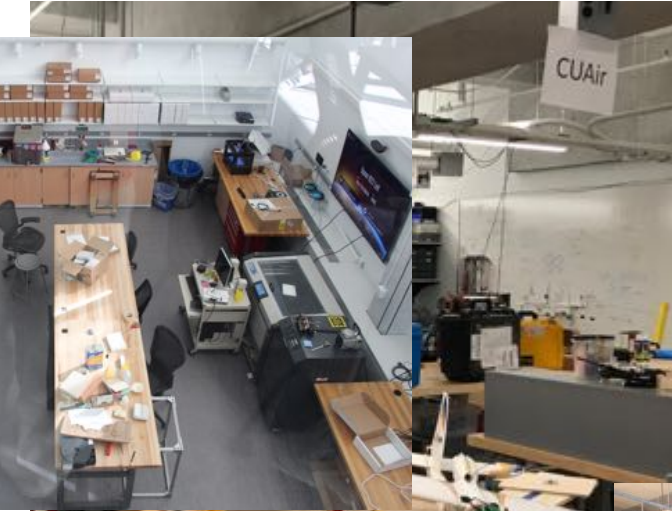
2: classrooms, teaching lab

1: classrooms, admin

B: project teams,
manufacturing

The New Upson: Enabling Project Teams

build spaces



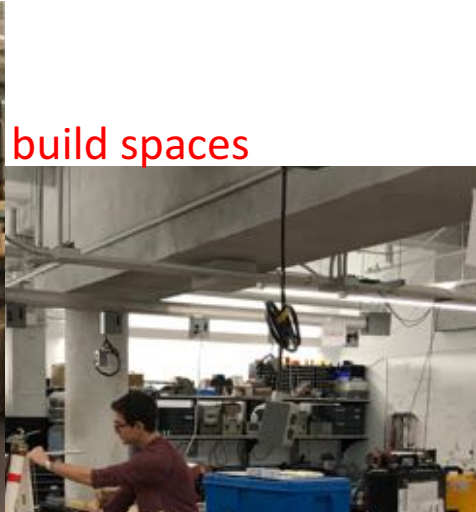
meeting spaces



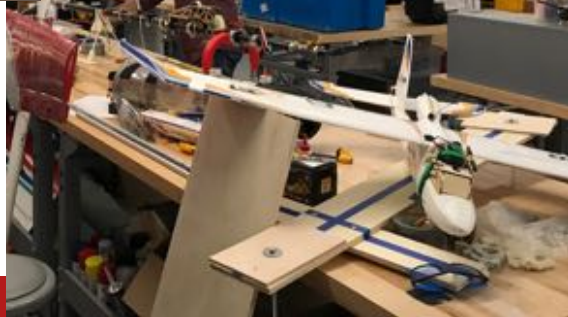
CornellEngineering

Emerson Shop

The New Upson: Enabling Project Teams



rapid prototyping lab



The New Upson: Enabling State of the Art Instruction

flipped classroom



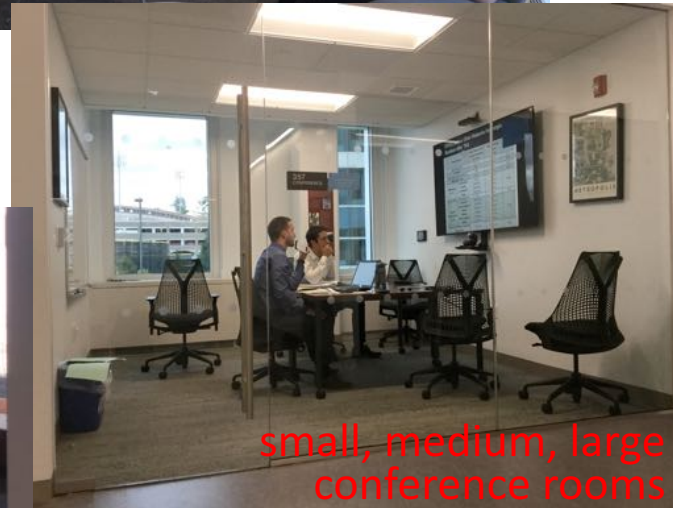
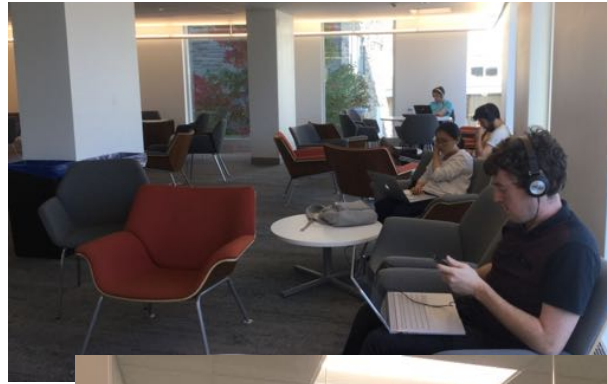
computer lab



teaching labs

The New Upson: Enabling Collaborative Research and Learning

bump out spaces

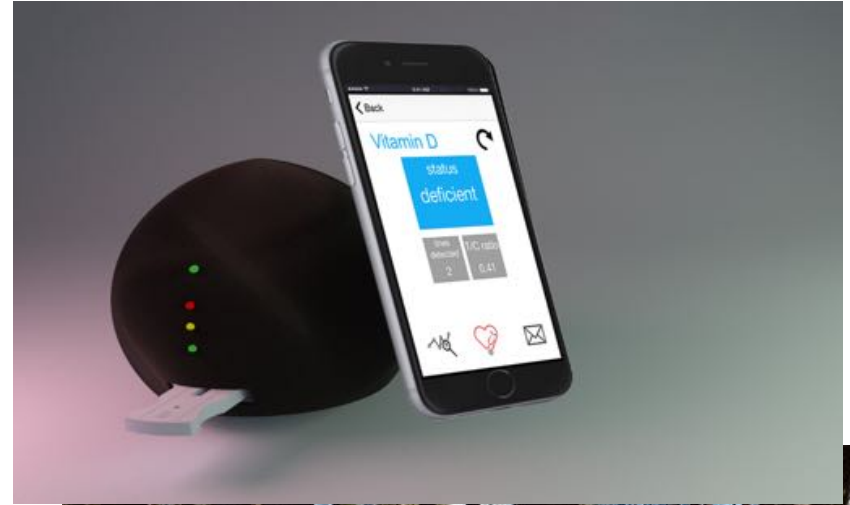


small, medium, large
conference rooms



The New Upson: Enabling Life Sciences Research

Erickson's lab: mobile/global health

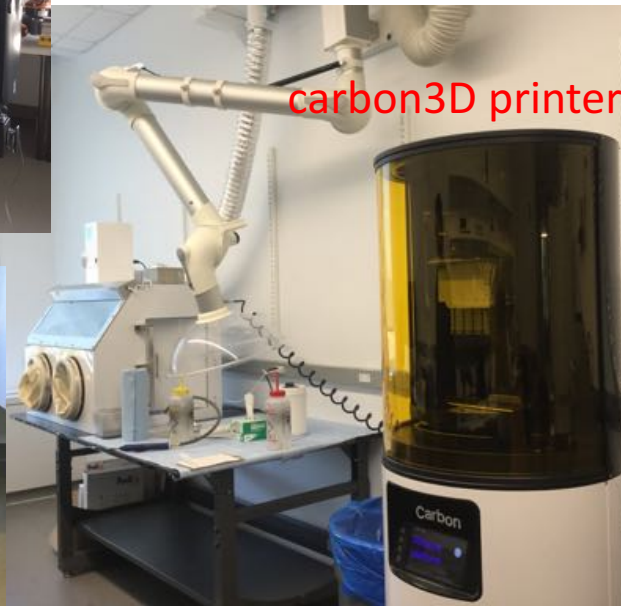


The New Upson: Enabling Interdisciplinary Robotics

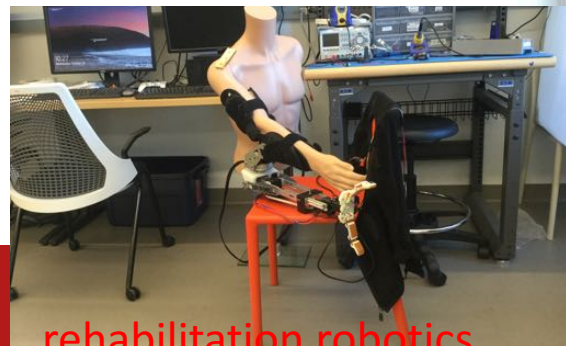
human-robot collaboration



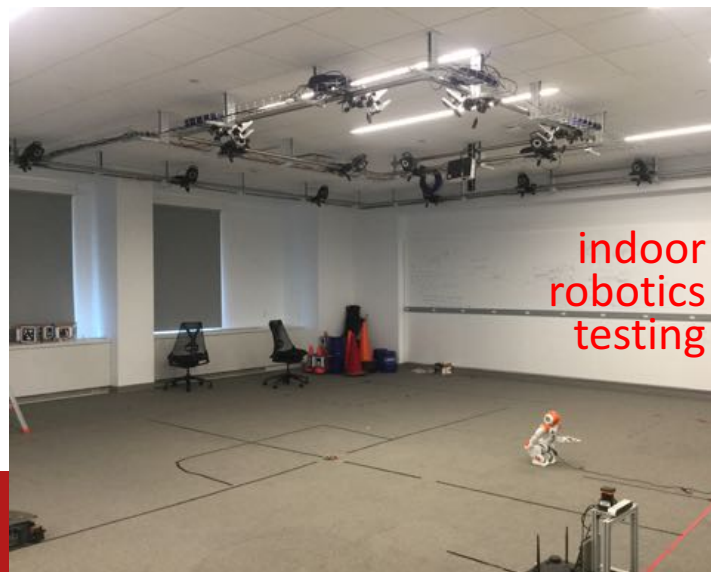
carbon3D printer



rehabilitation robotics



indoor robotics testing



The New Upson: Sibley History



Reuleaux
Collection

Summary and Take Aways

- State of the art facilities enable so many game changers:
 - ease and lower costs in adapting/changing spaces
 - project teams
 - new teaching methodologies
 - collaborative research
 - draw for new faculty and students

