

# HCI ENGINEERING GROUP



The HCI Engineering Group works at the intersection of human-computer interaction and personal fabrication tools.



**Group Lead** Stefanie Mueller Telephone: 617-715-5831 Email: stefanie.mueller@mit.edu

### CSAIL / MIT

Website: hcie.csail.mit.edu/

#### Location:

The HCI Engineering Group is located in the Ray and Maria Stata Center at MIT, Room 32-214.

#### **Research Group Address:**

HCI Engineering Group MIT CSAIL 32 Vassar Street Cambridge, MA 02139

#### **Research Vision**

Our long-term vision is that in the future, anybody will be able to create anything anywhere anytime. Working toward this goal, we build novel hardware and software systems that advance personal fabrication technologies.

#### Areas of Research

- Human-computer interaction
- Personal fabrication technologies

#### **Research Activities**

- Interactive surfaces and tools
- User interaction data
- 3D-printed objects

#### **Industry Applications**

- Education
- Energy
- Entertainment
- Health care
- Internet of things
- Manufacturing



#### In the News

- A new tool called Fabricaide enables <u>less-wasteful</u> <u>laser-cutting</u> by giving feedback on a design's feasibility and analyzing how much material is used.
- The HCI Engineering Group has developed <u>sprayable</u> <u>user interfaces</u> that let users create room-sized interactive surfaces with sensors and displays.
- A new system developed by the group can <u>print fully</u> <u>functional drones</u> and other custom-made devices and robots, without human intervention.

"Beyond engineering, we're also thinking about how this kind of one-stop shop for fabrication devices could be optimally integrated into today's existing supply chains for manufacturing, and what challenges we may need to solve to allow for that to happen. In the future, people shouldn't be expected to have an engineering degree to build robots, any more than they should have a computer science degree to install software."

- Martin Nisser, PhD student



Current People in the HCI Engineering Group

**Principal Investigator** Stefanie Mueller

## Postdoc, Graduate, and MEng Students

Michael Wessely Yoonji Kim Dishita Turakhia Martin Nisser Junyi Zhu Mustafa Doga Dogan Ticha Sethapakdi Faraz Farugi Diego Pinochet Yunyi Zhu Leon Cheng Joshua Verdejo Olivia Seow Sabina Chen Mihir Trivedi Ngai Hang Wu

