WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

The World Economic Forum Fab Lab

The digital revolutions in communication and computation are now being followed by one in fabrication. Just as personal computers and the Internet empowered individuals and organizations with information technologies, this one will allow anyone to make (almost) anything.

Implications of digitizing fabrication include speeding product development and simplifying supply chains for existing businesses, creating new business models based on shipping data to market and producing products on demand, equipping customers to become competitors to businesses by producing what they consume, and enabling new models for regional sustainability and self-sufficiency.

The digital fabrication roadmap is progressing from computers controlling machines, to machines making machines, to assemblers of digital materials. Widespread access to these capabilities is being provided by a global network of community fab labs. These share an evolving common suite of tools, including 3D scanning and modeling, additive and subtractive fabrication processes, and electronics production and programming.

Fab labs began as an outreach project from MIT's Center for Bits and Atoms, and have grown to hundreds of sites. They are being used to teach technical skills, prototype products, incubate businesses, create jobs, and produce infrastructure. They're supported by a Fab Foundation for operational capacity, and a Fab Academy for distributed education.

This year's World Economic Forum fab lab is based on the transition to rapid-prototyping of rapid-prototyping machines, so that the technology can spread virally. The hardware and software tools will be presented by their developers, and available for replication by attendees. A sequence of daily workshops will provide a hands-on introduction, and around that fab lab personnel will be on hand to discuss projects and processes.

The Fab Lab workshops are located on the Middle Level, behind the Sign-up Desk and next to the Terrace Lounge.

From Atoms to Bits: 3D Scanning Workshop
Learn how to turn a physical object into a computer model at the Fab Lab.
Wed 10.00 - 10.30

From Imagine to Iterate: 3D Modelling Workshop
Learn how to design a product using 3D modeling tools at the Fab Lab.
Wed 15.00 - 15.30

From Bits to Atoms: 3D Printing Workshop
Learn how to print a 3D object at the Fab Lab.
Thur 10.00 - 10.30

From Imagine to Iterate: Fabrication Workshop
Learn how to do precision fabrication of unique components, such as jewellery and optics, at the Fab Lab.
Thur 15.45 - 16.15

From Consumers to Creators: Moulding and Casting Workshop
Learn how to manufacture parts at the Fab Lab.
Fri 10.00 - 10.30

From Consumers to Creators: Electronics Assembly Workshop
Learn how to personalize and produce an electronic circuit board at the Fab Lab.
Fri 15.45 - 16.15

From Manual to Automated: Microcontroller Programming Workshop
Learn how to modify and load an application program into an embedded computer chip at the Fab Lab.
Sat 10.15 - 10.45

From Manual to Automated: Device Development Workshop
Learn how to make smart systems for use in areas such as healthcare and communications at the Fab Lab.
Sat 12.00 - 12.30