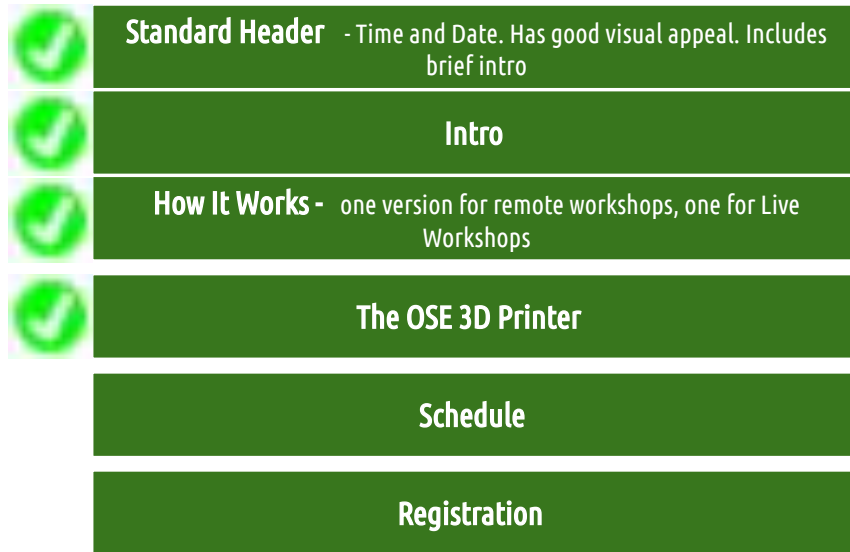


3D Printer Remote Build Workshops - Announcement: Structure



Audience: people looking at our site. People searching for building their own 3d printer. People who we contact via our Workshop Interest Form - and offer a remote build instead of live participation as an easy way to build in the comfort of your home.

Focus on the OSE Unique Value Proposition. We have the world's only 3D printer that is a construction set for a 3D printer of any size - and CNC machines of any type in general.



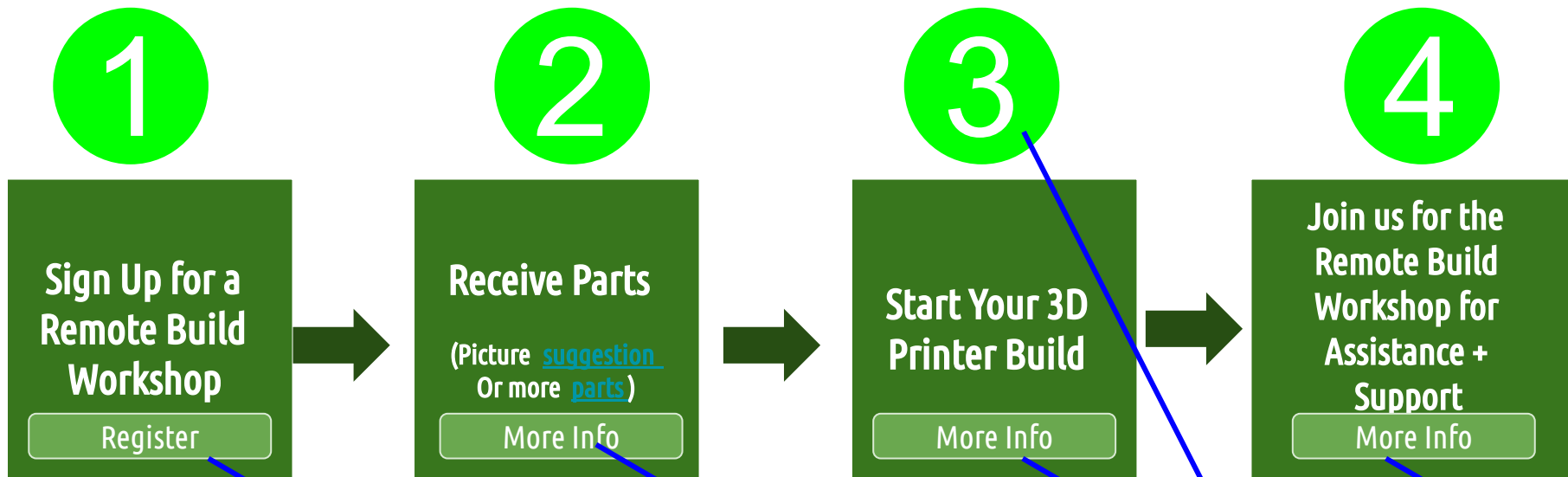
Schedule

	Intro	8 AM : OSE and 3D Printer Introduction
1	Frame	8:30 AM : Build start
2	Axes	Time : Description Description Description Description Description Description Description Description
3	Print Bed	Time : Description Description Description Description Description Description Description Description
4	Extruder	
5	Controller	
6	Wiring	
7	Final assy	
8	Test Printing	

How It Works (Remote Workshops)

Our printer uses common off-the-shelf parts and is possibly the easiest printer in the world to build from scratch. **Our printer has only 42 unique parts, which is about 1/3 of any other printer.** We provide full documentation in our 379 page manual how you can start from scratch and go to a complete build. Unlike other kits - you do not need to use custom manufactured parts to build our printer - outside of the 3D printed parts. To build the frame - you can use steel, PVC pipe, or aluminum extrusions - you just need to be able to mount the axes and controller to the frame.

To save you many hours of time, we are offering kits and workshops so that you can build the printer yourself in as little as a day. Here's how it works:



Sends you to the registration section

Goes to an Issue with the first section showing all the parts?

An overview of build with the main build phases, pictorial in a well-formatted manner. **Videos later.**

Description of the troublespots for the 3D Printer to encourage people

If you have one of our kits- it takes as little as 5 hours to build a 3D printer ready for perfect prints.. Normal mortals will take about 2-4 times this time using our instructions. Our kit requires no soldering and requires only 4 small tools, which are provided with the kit. This means that you can spend more of your time on learning, not just building the 3D printer.

We are offering a high performance 3D printer - and with great performance comes great responsibility: we include procedures and tools for performing Distributed Quality Control - so that you know exactly how much performance (speed and accuracy) you will get from your printer. (FUTURE OFFER IN RED)

Maybe show nice Noun Project icons. Ideally, the background of each Box would be a greyed out picture. See picture suggestions.



How It Works (Real Workshops)

Background image of
Extreme
Manufacturing

Our printer uses common off-the-shelf parts and is possibly the easiest printer in the world to build from scratch. **Our printer has only 42 unique parts, which is about 1/3 of any other printer.** This means that by design - you could build our 3D printer quickly and efficiently. And - because our parts are easy to source - that means that you can keep your printer running for ever - which is the **OSE Lifetime Design Guarantee** .

We are offering our unique Extreme Manufacturing Workshops where you can build our 3D Printer in one day



Sends you to the registration section



Details of workflow, leadership, staying together at same pace, helping, offering help; goals of scalability and social production model

The Exterme Build Workshop is a unique experience. We are pushing the limits of social production towards advanced productivity on a small scale. Our work is an experiment: can local, appropriate technology production replace centralized production? We believe that centralized production cannot compete with open source. Our XM workshops are our test bed: can we build high quality products with distributed quality control? Can we scale this model so that the open source microfactory is the new engine of production?

Our goal is to show that the Extreme Build model is scalable - to large and complex technologies, and to unlimited participation where people can build complex products efficiently. Specifically with the 3D printer - we aim to demonstrate that we can not only build 12 printers in a single day - but 24 - or 100 - or 1000 - limited only by the facilities that we have at our disposal - but not limited by knowledge transfer or quality control. The future of the open source microfactory and distributed production revolves around open source hardware, simple design, appropriate automation, and distributed quality control. Fast, quality, and cheap.



How We Build in One Day

Join us for the Extreme Build Experience

More About Expectations

Mofos, if you gonna build 12 printers in ONE DAY - you need to collaborate

Over the last 4 years of building open source machines, we have learned a lot about coordinating large groups. We are able to create experiences - with great feats of productivity - without requiring experience from the builders. To do this - the secret is cooperation between the fast and slow people. But cooperation is hard for cultural and psychological reasons. Superheroes typically don't like to slow down - and slow people don't like to ask for help. To get around this common dynamic - we use these Rules of Extreme Manufacturing:

1. We work in pairs. You are required to bring a friend with you to help you in your build.
2. We microchunk the tasks. We break down steps into 5 minute intervals.
3. We follow build steps in unison - no stragglers or superheroes allowed. This assured by microchunking the build.
4. The first person to finish assists the next closest person who needs help.
5. Any person who is not finished is expected to be open to being helped.
6. Once everyone finishes the build steps for a module - quality control steps and checklist are used to verify that all parts are built correctly. Each person takes the printed quality control (printed) checklist and runs through quality control for another person's build, such that all builds are quality assured
7. The first person that finishes the quality control pokes their quality control slip on a paper spike, and proceeds to help the next person to them perform their quality control steps.
8. We proceed to the next step only when everyone is finished with the quality control.
9. We go to the next microchunk.
10. Quality control starts by taking the papers off the paper spike - it does not matter whose build another person verifies. One quality control slip may cover several microchunks of build.

We have discovered that knowledge transfer happens best when people work together - and this knowledge transfer is key to keeping everyone up to speed.

3D Printer Remote Build Workshop Announcement

Standard Header



**Build Yourself.
Build Your World.**

open
source
ecology

**FREEDOM
TO BUILD YOURSELF**

Towards industrial productivity on a small scale.

Header always
remains the same

Remote Build Workshop

1-5 PM CST USA Time

January 19, 2018

Only date changes

Participate in a guided remote workshop where we help you build the OSE 3D Printer - in as little as one day.



The OSE 3D Printer

Audience Notes: (1) newcomers stumbling upon our microfactory site. (2) People searching for building their own 3d printer. (3) People who we contact via our Workshop Interest Form - and offer a remote build instead of live participation as an easy way to build in the comfort of one's home.

The OSE 3D Printer

Modules

Frame	Extruder
Axes	Controller
Print Bed	Wiring

There are many 3D printers out there. Some of them are open source. The OSE 3D printer is the only 3D Printer Construction Set in the world: you can build a 3D printer of any size using a common set of open source, modular building blocks. Do you need a bigger or different printer for your experiments - and it doesn't exist in the marketplace or is it too expensive? We may have an answer.. You can use our Universal Axis System to build other light-, medium-, and heavy-duty CNC machines. You can also use our Part Library to design other versions of the 3D printer in FreeCAD.

Build a 3D Printer of Any Size using the Universal Axis System

More Info 1

Build a different CNC Machine

More Info 2

You can build our printer from easy to source, off-the-shelf parts. See our exhaustive manual for build instructions from scratch:

Embedded copy of our 379 page manual ([Issuu](#) or an open source platform) [Wordpress](#).

These 6 modules should be graphical icons. Can we do a mouseover event - like a bubble - that provides a **few sentence description** of each module?

Focus on the OSE Unique Value Proposition.

Show the Universal Axis (simple embed as on our wiki). Show our 6' and 3' printers. Then publish 3D Printer Design Guide and Create 3D Printer Workbench which has our modules included.

Background: Large 3D Printer

Background: CNC torch table
[picture of your choice](#)

Forthcoming: (1) 3D Printer Design Guide; (2) 3D Printer Workbench Specification.



open
source
ecology