

Welcome to the first DiDIY online course!



This is the first, free online course about DiDIY (Digital DIY). Its goal is to provide, in the simplest possible way, an understanding of the DiDIY phenomenon and of the reasons it is so important for (European) society.

OUTLINE

The course is divided into eight parts, including this general introduction, which are listed at the bottom of this page. Each part, except for this introduction, consists of a short text that explains some aspect of DiDIY, a list of resources for anyone who would like to know more about the topic, and some learning activities. Most parts also include a short video that explains or expands some aspects of the respective topic. Each part of the course may be used independently from the others, but the recommended order is the one listed below.

The course is completed by:

- an online forum, where periodic sessions are run. This forum, which is supervised by a tutor, offers course participants a safe space to interact with each other or ask for assistance about specific projects;
- a final questionnaire.

WHAT IS DiDIY?

Digital DIY (DiDIY) is the production of all sorts of objects that is enabled by the availability of hardware tools and other machines that are:

- directly controlled by some computer, or more exactly by some software, instead of a human being;
- much cheaper and simpler to use than they were even a few years ago.

The first, immediate consequence of these characteristics is that DiDIY can be really ubiquitous. The second is that it does *much more* than just giving some people cheaper and faster ways to perform the same DIY activities they were already doing.



DiDIY is ubiquitous, because software is extremely flexible. Any tool that is controllable by electric signals can be controlled by software. Software, in turn, can process designs and instructions of every conceivable sort. This means that, from a purely technical point of view, the only limits to manufacturing something in DiDIY fashion may be the costs of the raw materials.

The fact that DiDIY replaces (albeit not completely!) manual dexterity skills with the capability to use software is even more important. It *means that DiDIY enables a (much) greater number and variety of people* to do the same things. The easiest proof of this is sculptures: today, even people who would never work with clay or handle a chisel can produce them with a 3D printer.

Digital DIY also gives some rights back to consumers, allowing them e.g. to self-produce spare parts of a product they already own, which would otherwise not be available.

If not properly known and practiced, the DiDIY technologies presented here have the same drawbacks as traditional DIY, e.g. safety, plus one that is less known: the microelectronics components at the core of many DiDIY projects are hard to recycle, if recyclable at all. The same applies to certain plastics used in 3D printing.

In this course, we will mostly mention Open Source/Open Hardware tools, even when they are not the state of the art in the field or, in some cases, have not been updated recently. The reason for this choice is to highlight the following point: with the right knowledge, or the right experts assisting you, it is certainly possible for everybody, both technically and legally, to build, use and even customise those tools “without permission”! Without, that is, any limitation that may make those tools accessible only to large organisations.

COURSE MODULES

1. Introduction (this page)
2. [DiDIY fundamental technologies and tools](#)
3. [DiDIY "derived" technologies and tools](#)
4. [DiDIY in education](#)
5. [DiDIY and creativity](#)
6. [How DiDIY reshapes business roles \(and work in general\)](#)
7. [DiDIY legal issues: rights and responsibilities](#)
8. [DiDIY communities](#)
9. [DiDIY final overview](#)

COURSE PRIVACY POLICY

To be linked to the overall DiDIY website Privacy Policy

COURSEWARE LICENSE

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