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# How to make more than machines in our places of making ?

# DIY is cool - DIWO is different

## Do It Yourself

Learn and make

Autonomy

Courage

Hard skills

Using communities knowledge

Most of the times you manage  
your time

**Freedom** to make as you  
like/can

Loneliness (can be happiness)

## Do It With Others

Learn and make


Hard skills AND soft skills

Social and communication  
challenges

Cooperation and collective  
intelligence

Choices are not only yours  
Yes we can make things we  
could not make alone

Not so easy for some people

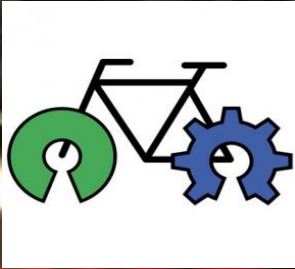
A photograph of two men in a workshop or fablab setting. The man on the left, wearing a blue patterned shirt, is smiling and holding a small, custom-built robotic device with a circuit board and wires. The man on the right, wearing glasses and a dark jacket, is looking at the device with interest. In the foreground on the right, a hand holds a Nikon video camera, partially obscuring the view. The background shows various workshop materials and equipment.

In the fablabs, makerspaces and  
hackerspaces  
**WE SHARE and it makes a difference**

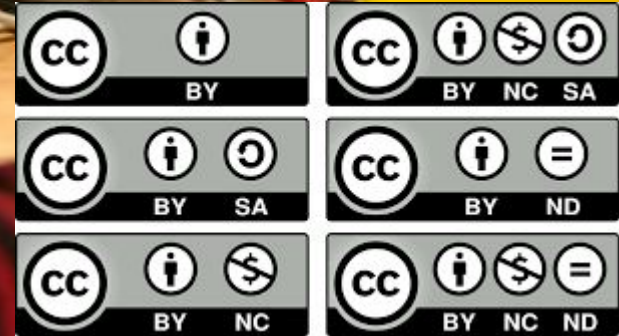
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**Commons and documentation means a collective responsibility to maintain an hybrid ecosystem between atoms and knowledge.**

**If the people share their work in the common good, they are not only making an object...**



Crédits OSE



Hardskills and tools can **MAKE** real **OBJECTS**.

Soft skills and cooperation can **feed sense of collective projects and feed collective actions on mid and long term.**

**Objects are very inclusive** - you can have a lot of cognitive approaches. Touch, odour, colors, weight, symbolic field...

**Community can last, co-design, solve problems that are not even planned before.**

Trying to link these attributes can be a goal for “fabrication sequences”.

# Trick one : think about **WHY** will you build **WHAT** ?

**Context** of the object : why should it be made ?

**Who** does it address ? **Symbolic** dimension ?

What are the **goals of the fabrication** ? (teach skills, team building, solve problems, prototyping, documentation, challenges in a field ?)

**Wich stakeholders** are involved ? **How and why** ?

Trick two : **Face the constraints  
considering the people involved.**  
**Shorter formats needs better preparation**

Is **diversity** a goal / considered as a good thing for  
**cooperation** ?

What are the **conditions to take part** ?

What times are dedicated to meet, **informal exchanges** ?

Do you plan to have a **whole group, or teams** ?

Ice breaker ?

Can the people **freely** access **commodities** (toilets,  
smokers zone, phone call zone ? )

What **rules and messages** are reflecting your **values** (for  
example no competition, group picture, flyers, stickers) ?

Place size, tools needed, documentation ready ?

**“Context aware”  
workshops  
Adapt the rules**

Example of a workshop in  
RDC : ecological mix for  
braseros.



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# Trick three : **Prepare and provide resources**

**Human resources** : fab managers, experts, people concerned - Let them introduce themselves or introduce them to the others. They can also wear badges, shirts...

**Tools and people to help to use tools** (partners, students, hobbyists, pros)

**Informations and documentation** (depending of the constraints you can print QR codes, put a screen, paperboards, printed documents, connected computers...)

**Identify abilities in the people**, and if you have the time, observe and **list what is missing and provide it before the end !**

# Trick four : **Manage the time(s).**

## **Observe making and NON making phases,**

Relations, group self-confidence, cooperation, affinities.

**The first half day is critical** : you must help the bird to fly.

**Plan pauses when everybody stops and makes nothing**  
(sometimes it doesn't work, because of passionate ppl :)

**Make the people eat together.** Keep time and use space so  
**they meet NOT ONLY IN TEAMS** - Serendipity is a friend.

Introduction - eating times - **collective storage time**  
celebration time and conclusion moment are **IMPORTANT**  
**TIMES.**

# Trick four bis : **Manage also the time(s) in long periods**

Rythm - rituals - communities

**Openlabs  
(classicaly weekly)**

**Repair cafe (monthly ? )**

**Communities actions  
(doc/wikis sprint...)  
4 times/year ?**

**Big events  
(annualy ?)**



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# **Trick five : Mix the people**

## **Don't focalize only on the making.**

### **Involve also partners on new fields for them.**

**Creativity is better with diversities : no uniform skilled teams please if possible.**

**Let's make things than can work : involve local "makers" also !**

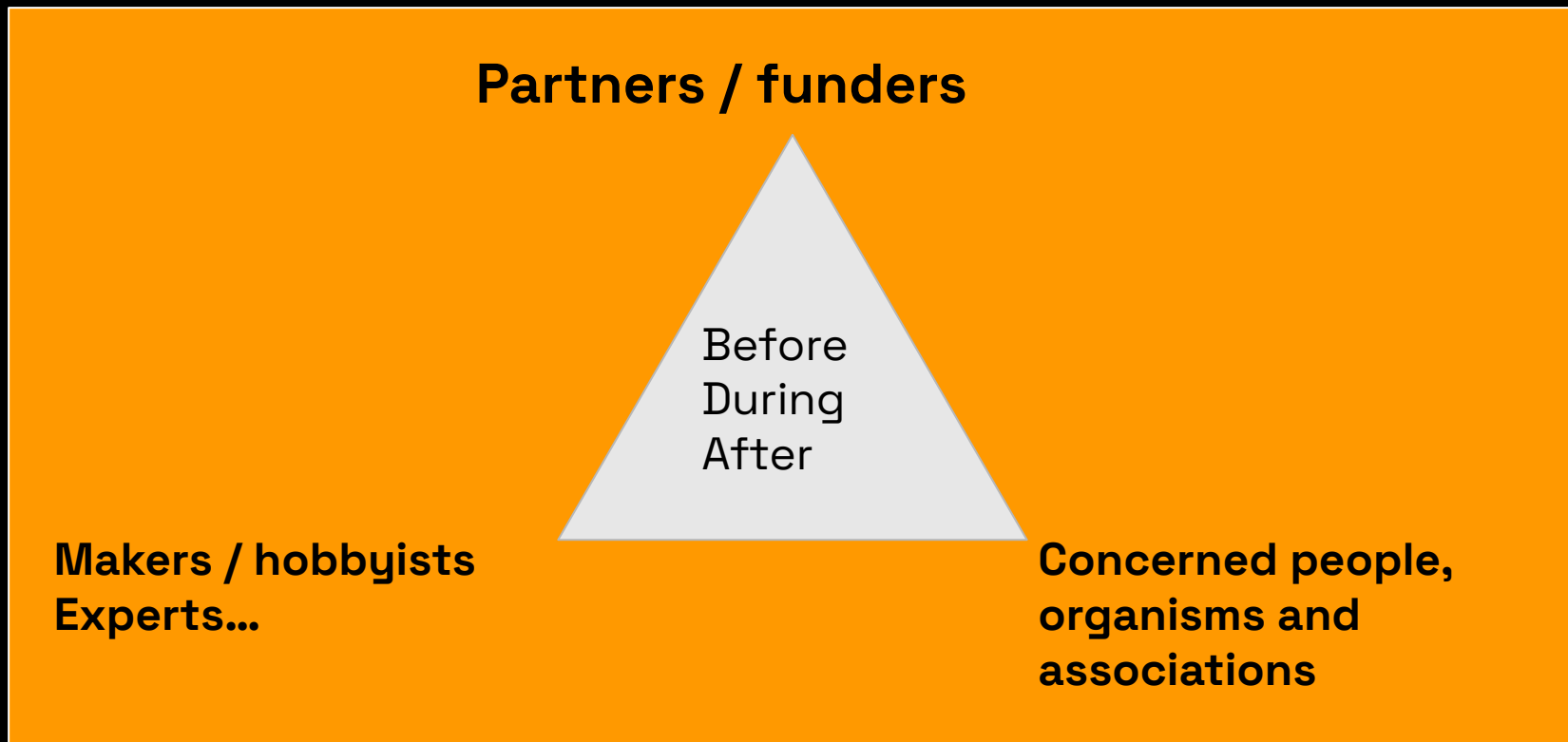
**People's mind can change when making things together : a super power to use especially with partners.**

**Some are making nothing else than keeping good mood in the event. So they are useful.**

**Everybody is different. If anybody has learned or shared something with somebody he/she did not know, it is precious and creates something precious.**

**Try to involve partners in the making not only in the funding and communication. They will have another "living" of the actions.**

# Trick 5bis : the magic triangle



# Examples

Useless Box :

Not so useless !



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# Examples

Modifying an existing tool  
-> Hack /Upcycling

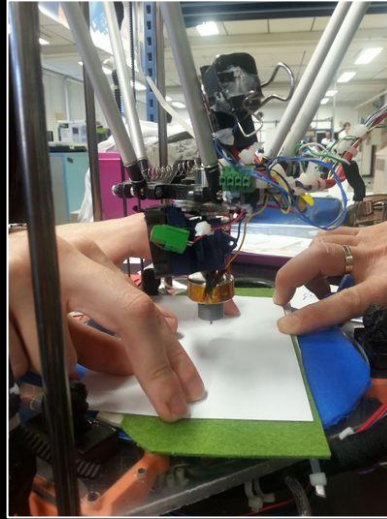


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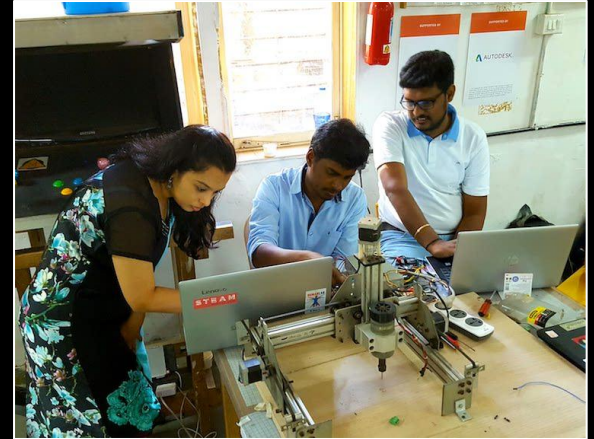


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# Examples

Create prototypes to solve  
problems in a specific field  
(Hackathon)

**Sprint/Creation  
documentation**



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# Examples

Make machines for and with  
concerned people

[Brailrap.org](https://brailrap.org) workshops



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Origami's with paper to  
create sustainable bags :  
less tools, more pedagogy



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# Examples

Dedicated fabrication  
run by a group, for one  
person

wall hanging for a child  
with autism spectrum  
disorder



# Good recipe

- **Prepare the magic triangle**  
(Partners-funders/makers/concerned people and associations) **to work (?) together**
- **Prepare the resources - go in the place before**
- Introduce **commons ecosystem** - push it - **document !**
- Involve **people concerned**
- Link the people through **emotions and discovery** - link **them in their memories**, provide them places to go further.
- In fact, **sow the seeds of cooperation between stakeholders.**

Don't forget

**Making is powerful.**

**But the way you make makes sense in a shared context, and can create social dynamics to build collective responses to needs and desires (for example on a territory).**



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# THANK YOU A LOT For your attention !



## Let's make more than machines !



Hugues AUBIN  
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