

Instructions and insights for imagining, designing, and building Counter-Device out of a mesh node

DESIGNING COUNTER-DEVICE

THE MACHINE

Insights for Shaping

The Movable Net

Introduction

A mesh node is malleable, adaptable, autonomous, and liberated. Starting from these qualities, this lab invites you to imagine and build a device that responds to a collective need — a Counter-Device. The idea is not to produce a finished product but to experiment, learn through making, and document the process so that others can reproduce and build upon it.

As you work, fill in the Node Profile alongside this process. It is both a design brief and a documentation tool. Try to document your process as if someone else could build your device from your description alone.

Design Questions
and Observations

Before you begin

The readings proposed by mutablenet.xyz, showcase three separate yet interrelated concepts regarding resistance and autonomous technologies. Electronic Civil Disobedience argues that power has moved into information flows, and that resistance must follow. Tactical Media describes practitioners who work with what is available, creating temporary interventions that are never perfect but always responsive. Finally, the Low-tech Internet shows that the most resilient networks are often the simplest, built from repurposed materials and maintained collectively.

Start from this material to inspire your creation; the lines below will help you during the process.

Define your intention

What is the purpose of your device? What problem does it solve, or what possibility does it open? Is it meant to extend connectivity, protect it, make it mobile, make it visible, or something else entirely?

Who is it for? Is it designed for a specific community, context, or type of user?

What is the political or social intention behind it: why does this device need to exist?

Define your context

Where does your device live? Is it indoors or outdoors? Is it urban, rural, or in transit? Is it meant to be permanent or temporary? Long-staying or quickly deployable?

Is it meant to be visible or hidden? Displayed or concealed? Does it need to resist weather, humidity, or physical damage? If so, what materials or construction choices can help?

Define its form

How can the shape of your device serve its purpose? Does the form communicate something about its function or intention?

Is your device meant to be hanged, mounted, carried, hidden, or left in place? Is your device made from repurposed, found, or recycled materials? Is it modular or fixed? Could it be disassembled, modified, or repurposed again?

How does it spread connectivity, does it need to extend a signal, focus it in a specific direction, or shield it from interference? Try to use appropriate materials and note them down.

Think about materials

What materials are available to you? Start from what is already in the room as a comfort limitation but don't be scared to project!

Electromagnetic Extension

Different materials interact differently with radio waves: metal can shield or reflect signals, wood and plastic are generally transparent to Wi-Fi, water absorbs it and aluminium and copper can amplify it. How can this inform your material choices?

Think about reproducibility

Could someone else build this from your Node Profile alone? Try to be specific about materials, tools, and steps.

Sketch your ideas and design process, and create a final layout showing how you imagine the device to look and function.

What would you change if you built it again? Note it down ! Your Node Profile and this booklet together will become part of the Mutable Net repository: a growing archive of collective knowledge.

Notes

Insights for Reshaping The Mutable Net
© Luca Marini 2025/2026

Text and Design:
Luca Marini (241336)
lucamarini.void@proton.me

Typefaces:
Lunchtype22
Lunchtype 23
Lunchtype25
Designed by
Steppot

CMU concrete
Designed by
Donald E. Knuth,
Various authors

Printed in April 2026