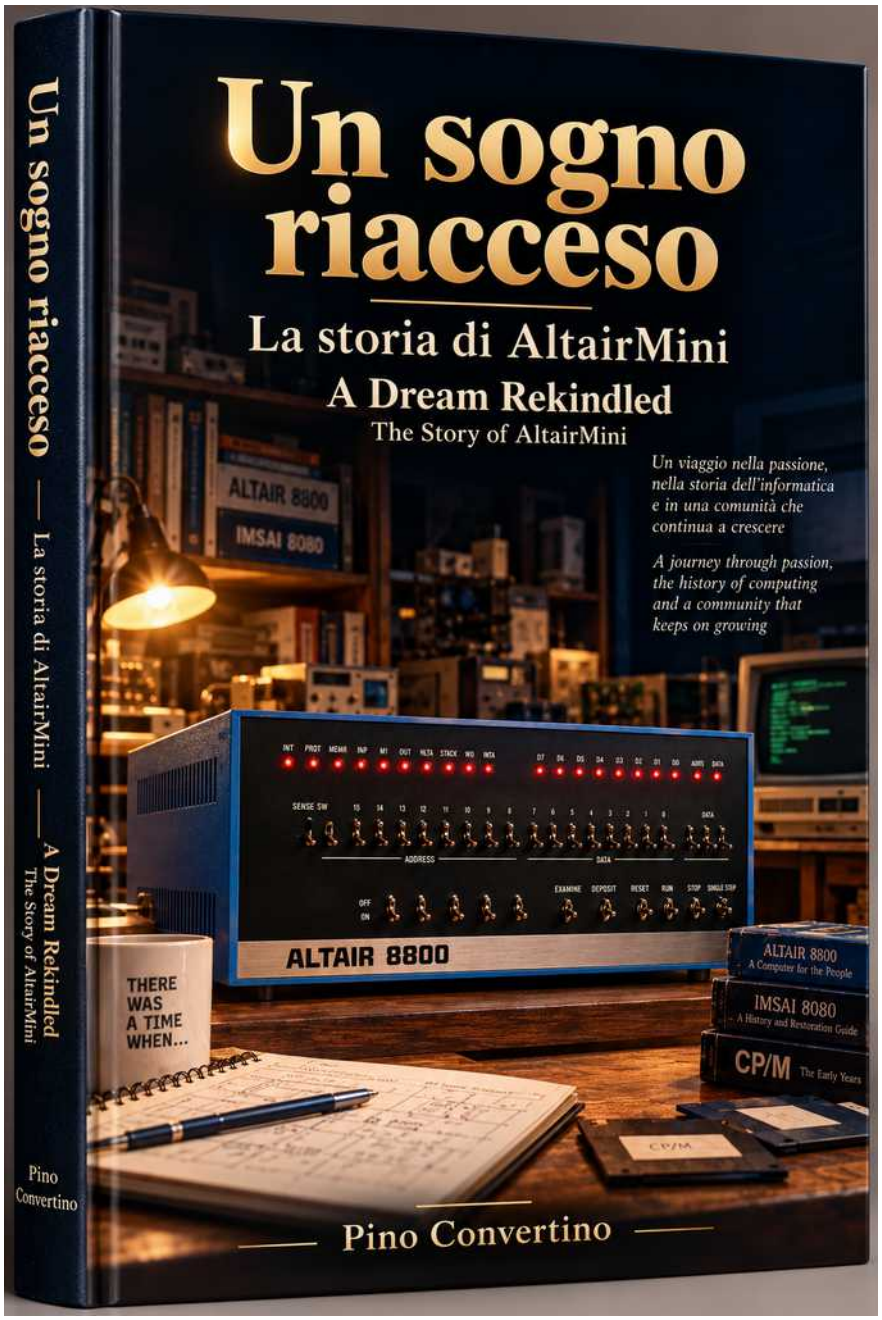

Un sogno riacceso
La storia di AltairMini
A Dream Rekindled
The Story of AltairMini
Un viaggio nella passione, nella storia dell'informatica e in una comunità che continua a crescere
A journey through passion, the history of computing and a community that keeps on growing
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THERE WAS A TIME WHEN...
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A Computer for the People
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A DREAM REKINDLED

The Story of AltairMini

Pino Convertino

A personal story of passion, electronics, memory, and the desire to bring a long-held dream back to life.

To my father

To my father, who made sacrifices to give me my first computer, the Sinclair ZX80. He could not have known how far that passion would travel, or how many ideas would grow from that first encounter with computing. Today, when I think of AltairMini and everything that followed, my thoughts return to that gesture. This dream began there, too. Thank you, Dad!

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13. Prologue — The Dream Returns

Some wishes never really disappear. They remain quiet while life takes us in other directions. For me, the Altair 8800 was one of those wishes. Years later, when I came across the machine again while browsing online, an old curiosity became a practical question: could I recreate its spirit using modern components?

In 2023, I began looking for an answer. I did not have a grand business plan, just an idea born from passion. This book tells the story that followed: prototypes, mistakes, products, people and memories. Above all, it is about how a personal dream can become something shared.

14. 1. The Computer I Never Forgot



One of the project's circuit boards.

My interest in computers began when I was young. My first computer was a Sinclair ZX80, followed by the VIC-20, the Commodore 64 and other experiences that fed my curiosity about electronics and programming.

The Altair 8800, however, had a special appeal. I was fascinated by its switches, lights and the way it made its operation visible. In the 1980s, it was available as a kit, but only in the United States. The practical options for buying across borders that we have today did not yet exist, and the Altair remained an unfulfilled wish.

Many years later, while searching online for vintage computers to buy, I came across the Altair again. The sight brought back a memory I had never forgotten. I could not return to the past, but perhaps I could find a new way to get closer to the machine that had fascinated me as a teenager.

15. 2. From Memory to the First Prototype

My search led me to David Hansel's work and his fully working Altair 8800 emulator. It was an essential starting point: I could study an existing solution and understand how to adapt it to my idea. I had knowledge of electronics and programming, but turning the inspiration into a real project still required patience and experimentation.

I bought an Arduino Due and began connecting the components. The first prototype consisted of many wires and looked nothing like the neat finished product I imagined. Then it worked. Seeing the switches and lights respond as I had hoped was a genuine emotional moment: the idea was no longer only in my head; it was there on my workbench.

That first test showed that the project could move forward. The next step was to turn the tangle of connections into a proper circuit board that could become part of a complete computer.

16. 3. Wires, Mistakes and New Possibilities



AltairMini: the project takes shape.

I used EasyEDA to design the circuit board. It was not easy at first: circuit design requires precision, and something that looks correct on a screen can reveal problems when the board arrives and is tested.

I ordered the first five PCBs. When they arrived, I discovered some incorrect traces, which required hardware fixes using thin wires. It was not the result I wanted, but it was part of the process. I had to understand what had gone wrong, correct the design and try again.

I redesigned the boards and ordered a second generation. This time they worked perfectly. The satisfaction was immense: the mistakes of the first version had become experience, and I finally had a reliable electronic foundation for the next stages.

17. 4. Giving Shape to a Memory

I wanted AltairMini to resemble the original Altair while being smaller. I was not trying to make an exact copy; I wanted to preserve the machine's visual character in a miniature object.

I used Rhino to design the case and printed several prototypes, changing the shape until I was satisfied. The front panel also required care: openings, switches and components had to line up. I designed it with EasyEDA and tried from the beginning to make assembly as straightforward as possible.

When the electronics, panel and case finally came together, I saw the first complete AltairMini. It was an emotional and deeply satisfying moment. I had turned a memory into something tangible through experimentation, learning and hands-on work.

18. 5. I Was Looking for Kindred Spirits

Once the first unit was complete, I still had a question: would anyone else want a machine like this? I listed the first Altair 8800 Mini on eBay, mainly to see whether there was an audience for the project.

It sold within a few hours. I remember being surprised and happy: I was not the only person who felt nostalgic about those computers and the years when they represented the future. I began to think there might be other people as crazy about them as I was.

I started assembling and selling more units. That first response showed me that the project might have a place, even if it appealed to a particular group of enthusiasts. I wanted to keep building, but also needed a better way to explain the work, the products and their possibilities.

19. 6. A Home for AltairMini



The case inspired by the original Altair 8800.

eBay was useful for presenting and selling the first units, but I wanted a space where I could tell the AltairMini story more fully. I wanted a website that would be both a shop and a place for technical information, descriptions and product photographs.

I built altairmini.com with WordPress. The site gave me room to explain the project and present the machines in more detail than a simple listing allowed. I also reinvested the first proceeds from eBay sales in online advertising to introduce the product to a wider audience.

When the first orders arrived directly through the website, I felt great satisfaction. It was confirmation that people appreciated what I had built. The first sales to the United States were especially moving: a project born from a personal memory was reaching enthusiasts far from home.

20. 7. A New Dream Takes Shape

Over time, some people began asking me to make an IMSAI Mini as well. Their requests matched a wish of my own: the IMSAI 8080 is another important machine in the history of early personal computers, with its own identity and appeal.

I also designed a new case for AltairMini, closer in appearance to the original Altair 8800 while remaining slightly smaller. The work was easier this time because of the experience I had gained designing the first version. I was familiar with the tools and understood the product's needs better.

I also thought of customers who had bought the first AltairMini. Offering the empty case separately would let them update their computer without buying a new machine. The response to IMSAI 8080 Mini was enthusiastic. A personal wish and the requests of many people came together in a new project.

21. 8. Bringing Eighties Technology Back to Life

The accessories grew out of a wish to offer an additional experience. The floppy unit made it possible to revisit storage media from the eighties, such as floppy disks, and to bring back a practical part of that technological world.

I also designed expansion units for both Altair and IMSAI. They add interfaces for devices such as cassette systems and dot-matrix printers, extending the system's possibilities. I did not want to stop at the computers' appearance; I wanted enthusiasts to have a fuller way to explore the computing experience of that era.

At the same time, I created a Facebook group to answer questions about using the products and provide a place for discussion. At first, I answered every question myself. As membership grew, some people naturally began helping one another. The community developed through people who shared the same passion.

22. 9. BBSs Never Died

In the 1980s, I had already run a BBS dedicated to ecology. People were sensitive to environmental issues even then, and I remember establishing a collaboration with Greenpeace. For me, the BBS was a way to use technology to give space to an important subject.

Many years later, I thought BBSs had disappeared. When I discovered they were still around, I wanted to learn how to create one today. After trying several programs, I chose Mystic BBS, which I found fairly easy to configure. A few sysops from other BBSs helped me, and I met many people who were welcoming and enthusiastic about having a new member join the networks.

I chose the name altairminibbs.net to keep it consistent with my products and to dedicate the BBS to the Altair 8800 and IMSAI 8080. One of my greatest pleasures today is creating new features. Rediscovering this world has let me connect an old passion with the work I continue to do on historic computers.

23. Epilogue — A Dream That Continues

I do not know how many more projects I will manage to complete, but I know this adventure has already given me a great deal. I began with the wish to get closer to a computer I had dreamed of as a boy, and ended up building something that other people chose to share.

AltairMini was born from a memory, but it does not live only in the past. It continues through new ideas, products, conversations and people. As long as I still want to build something new, that dream will keep rekindling.

24. Acknowledgements

I would like to thank David Hansel for developing the emulator that provided the technical foundation for AltairMini.

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