100 resources

for Hardware &
Electrical Engineers

Useful communities, and knowledge hubs

AllSpice.io

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Content

By engineers, for engineers

The best tools for learning, collaborating, and innovating in Hardware Design

As engineers, we know the struggle of finding the right resources to level up your work, stay ahead of industry trends, or just connect with a community that speaks your language. That's why AllSpice.io decided to create this ebook. It's a collection of 100 essential resources for hardware engineers, electrical engineers, and PCB designers, collected from our research and real-world experience in the field.

Here's an interesting stat we came across while compiling this list: 65% of engineers prefer learning through visual channels like YouTube or by consulting with colleagues. This highlights the growing trend towards hands-on, experiential learning. In this ebook you'll find everything from YouTube channels and subreddits to podcasts, and blogs; everything designed to make your hardware development process smoother and more efficient. For more stats like this read our "The State of Hardware 2025" ebook, where we share trends, challenges, and toolsets.

We hope you find this guide as useful as we've found it while putting it together. Let's keep building the future of hardware development to the next iteration.

How AllSpice.io is shaping the future of hardware development.

AllSpice.io built the first ever developer-led platform for collaborating on and seamlessly validating hardware designs.

The world around us is enabled by novel circuit designs. Consider the seemingly trivial act of hailing a taxi from the comfort of your home. This simple process (for you) relies on a 3 million light-emitting diode display with a user interface that is logically routed to a capacitive sensor capable of tracking your finger at sub-millimeter resolution, an antenna capable of transmitting to a radio tower kilometers away at a rate of 20 Gb/s, repeated 35,000 km to a satellite, which is able to use its own integrated sensors and drivers to maintain geosynchronous orbit over decades without human interference.

The infrastructure we've taken for granted wasn't designed overnight and isn't staying put. It's constantly evolving to enable the next generation of life-changing products. But this evolution is currently hamstrung by incumbent and proprietary development infrastructure built for waterfall project management (mostly in the 90s), requiring manual pdf exports, emails, and in-person meetings at each design revision. The next progression of human innovation, like putting the first human colonies on Mars, requires a step-change in how hardware designs are managed.

At AllSpice.io, we've experienced this problem as hardware engineers and we've seen the solutions as software leaders.

Today, AllSpice allows electrical engineering teams to dramatically accelerate their development by enabling a truly agile workflow. They can seamlessly push a new design update in Git, open a design review, tag stakeholders, notify them by email and Slack, all while AllSpice automatically collects review artifacts, like visual diffs and review checklists.

You can quickly find the resources you need with this ebook's easy to navigate categories.

Here's a breakdown of the categories:

Learning resources   Online Communities

Industry insights   Events   Miscellaneous

100 Essential Resources for hardware engineers:

LEARNING
RESOURCES

YouTube channels

When we surveyed 1,000+ engineers, video was their go to format for learning and career development.

Sometimes, visuals are just more helpful. Here are some of our top favorite YouTube channels for Electrical Engineers.

GreatScott!

Over 1 million subscribers - from hobbyists to professional engineers.

Great Scott! is filled with electronics tutorials, projects, and how-tos.

There's a wide range of videos from creating your own Portable Retro Game Console to The End of the Full Bridge Rectifier. One of the best parts about this channel is that the concepts are constantly broken down and explained while they are being demonstrated, making it easy to follow along with the project being worked on.

hobbyists   professionals   how-tos   tutorials

The Engineering Mindset

Over 1 million subscribers - from hobbyists to professional engineers.

The Engineering Mindset is designed to educate and inspire people at all stages as they learn about technical engineering. Their goal is to reduce highly complex and technical processes.

Much of the content revolves around the basics of electrical engineering, automotive engineering, and electric motors. They also offer their channel in a variety of different languages.

hobbyists   professionals   technical engineering   educational

ElectroBoom

Coming in hot with over 5 million followers is ElectroBOOM.

This channel will not only make you laugh, but also teach you a thing or two.

Topics span from electronics, Tesla coil science, rectifiers, and many, many more.

tutorials   electronics   entertaining   educational

Robert Feranec

Engineers looking to learn through tutorial-style videos and content.

Robert Feranec is passionate about creating online educational resources as the founder of FEVEL Academy and FEDEVEL Education.

This YouTube channel specializes in digital development focusing on processor, motherboard, and microcontroller board design. There are also a ton of Altium Designer tutorials and OrCAD, in addition to Cadence Allegro tutorials.

tutorials   educational   digital development   board design

W2aew

Unlike other channels, w2aew is geared towards the hobbyist and focuses on hobby electronics, test and measurement, and ham radio.

The creator of the channel, Alan, aptly chose the name w2aew to reflect his ham radio call sign. This channel is very responsive to fan questions and feedback.

Well, a picture's worth a thousand words - just take a look at all that radio equipment.

hobbyists   hobbysists   professionals   how-tos
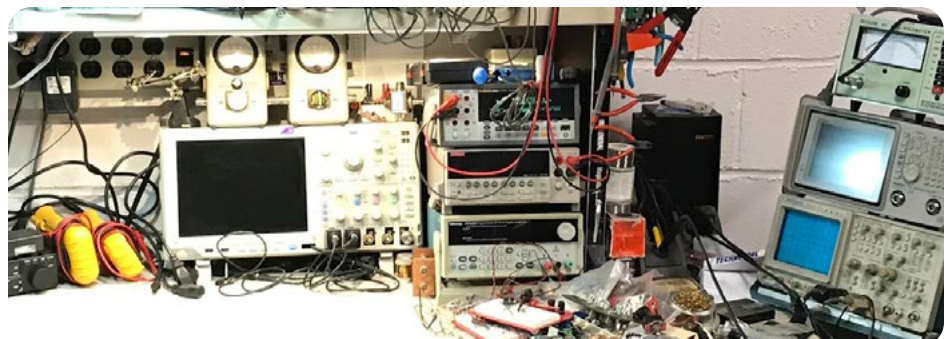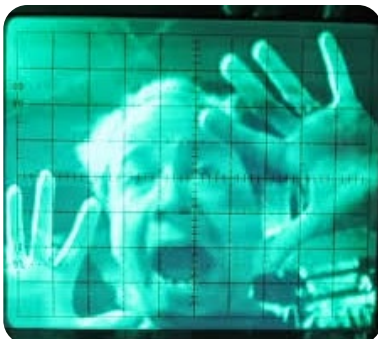
Fill out the form to continue reading and take your hardware development to the next level!