



MEET DAVID CUARTIELLES: THE ARDUINO CO-FOUNDER WHO'S PASSIONATE ABOUT EDUCATION



David co-founded Arduino along with Massimo Banzi, Tom Igoe, Gianluca Martino, and David Mellis in the early 2000s. Their original aim was to help design students with no experience in electronics or programming to create prototypes that would connect the physical and digital worlds. Arduino has been growing ever since, and David took the time to talk to us about his passion for

education and helping students learn STEAM skills.

Arduino Education: Hi David, thank you so much for taking the time to speak to us today, it's really great to chat with you.

David Cuartielles: Hi! Not a problem at all.

AE: Let's get started with a bit of information about you. Tell us about how you set up Arduino and how you came to be where you are today.

DC: I've pretty much always had an interest in education. During my studies, I worked as an after school teacher in math, physics, chemistry, and languages. Shortly after graduating from my MSc in Engineering, I became a teacher at the School of Arts and Communication at Malmo University in Sweden. For over a



decade I worked in the creation of education programmes for the university, looking at how to introduce technology transversely as part of several subjects within undergraduate, graduate, and postgraduate education.

The idea for Arduino was born at the Ivrea Interaction Design Institute as an easy tool for fast prototyping. As soon as it reached a wider community, our boards started changing to adapt to new needs and challenges, differentiating from simple 8-bit boards to products for IoT applications, wearable, 3D printing, and embedded environments. We've come a long way in the last 15 years!

AE: We certainly have! At what point did you see the potential for Arduino products in the education space and start making kits specifically for classrooms?

DC: Back in 2012, I realised that there wasn't really anyone addressing the needs of educators when introducing the curriculum. Therefore, I decided that at Arduino, we had to put educators at the center of our concept and help them find creative ways to use technology in the classroom.

AE: And why do you believe that Arduino kits are so good for learning?

DC: Arduino Education kits are designed for learning - but not just for learning STEAM skills, although of course, that's a major focus. I believe that our kits truly help students learn future skills; the ones that employers are looking for, like creativity, collaboration, problem-solving, and critical thinking. I feel that being able to give younger generations skills like these is critical to how our workplaces and society as a whole will tackle the future.

AE: And we agree! With that in mind, what do you think the future of education looks like?

DC: Formal education is going through a massive transformation due to the digitalization of modern society. If we look at the future classroom, we see technology not just as a tool to learn about, but as a way of enhancing those processes that currently stop us from building a better interaction between teachers, students, and their families.

Technology will help us access knowledge in better ways right at the time we need it. Assessing students' learning processes will be easier and more personalized. We will be able to scale pedagogical models that schools are currently only dreaming of. It will be possible to make cross-age study groups



that students will join based on their interests. Teachers will have access to tools that will help them see a student's progress and needs immediately. Student mobility will be a matter of transferring a file between schools.

AE: Thanks, David. Is there anything else you'd like to mention?

DC: Yes. At Arduino, we build on our vision in wanting to make technology accessible to everyone and put it into the hands of every student and educator every single day.

There's still a long way to go - we're on an amazing journey and this is just the beginning. The world of technology is constantly changing and new technologies keep showing their faces. That's why it's so very important that we work hard to make students of today aware of technology and give them confidence in working with it.

INSPIRED? HERE'S WHAT YOU NEED TO GET STARTED WITH ARDUINO EDUCATION

The Arduino Starter Kit can be used for both home learning and classroom teaching. It will help you get started quickly and easily with robotics, electronics, and coding.

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