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[Mechanical and Materials sciences & engineering; acoustics](#)

For the sheer beauty of sound

At the beginning of each academic year, students have the opportunity to take part in multidisciplinary inter-semester activities (IPA), enabling them to acquire new knowledge plus theoretical, technical and practical skills. For those interested in design or acoustics, Nicolas Dauchez and Christoph Harbonnier, both lecturers-cum-research scientists in the Engineering Vibration Acoustics (AVI) and Industrial Design Engineering (IDI) courses at UTC, together with Thomas Boutin, Head of the UTC prototyping workshop, have created «the perfect IPA» in 2019: entitled 'acoustic design'.

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For the sheer beauty of sound

The objective of this API is simple: to build a loudspeaker with the best possible acoustic qualities, without resorting to the traditional parallelepiped case, via a team work assignment and in 5 days, using the machines of the prototyping workshop, and on a limited budget.

In 2020, in order to confront their students with new challenges, UTC and the Lycée des Métiers d'Art (LMA) of Saint-Quentin joined forces. Engineering students, art cabinet makers and apprentice wood turners shared their knowledge, both in design and in wood transformation processes, to build wooden case enclosures that are both aesthetic and functional.

For Raphaël Hazo, a student in the Industrial Design Engineering (IDI) programme: "It is important to be open to other forms of art and creation, and wood working is one of them. The LMA students do not have the same skills as we do, and vice versa, so it has been a continuous flow of information between us. "This pedagogical collaboration between the LMA - Saint-Quentin and UTC has shown that the world of engineering and craftsmanship are complementary," adds Thomas Boutin.

In 2021, a new challenge, just as stimulating and in the air of the time: to build a new enclosure from two old ones, with a very limited budget. After five days of analysis, dismantling, design and reconstruction, the tests were conclusive: the upcycled speakers are of better quality!

What about 2022? Those in charge have plenty of ideas for revving up the next IPA! Maybe our next generation speakers will be made from recycled glass containers or cast artificial stone; who knows?

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