

Fully Functional Drone

For this use case, we worked with every fabrication method available in ZMorph VX. To learn how to combine 3D printing, CNC milling and laser etching in one project.



**Made by the worlds most versatile
and practical 3D printer**



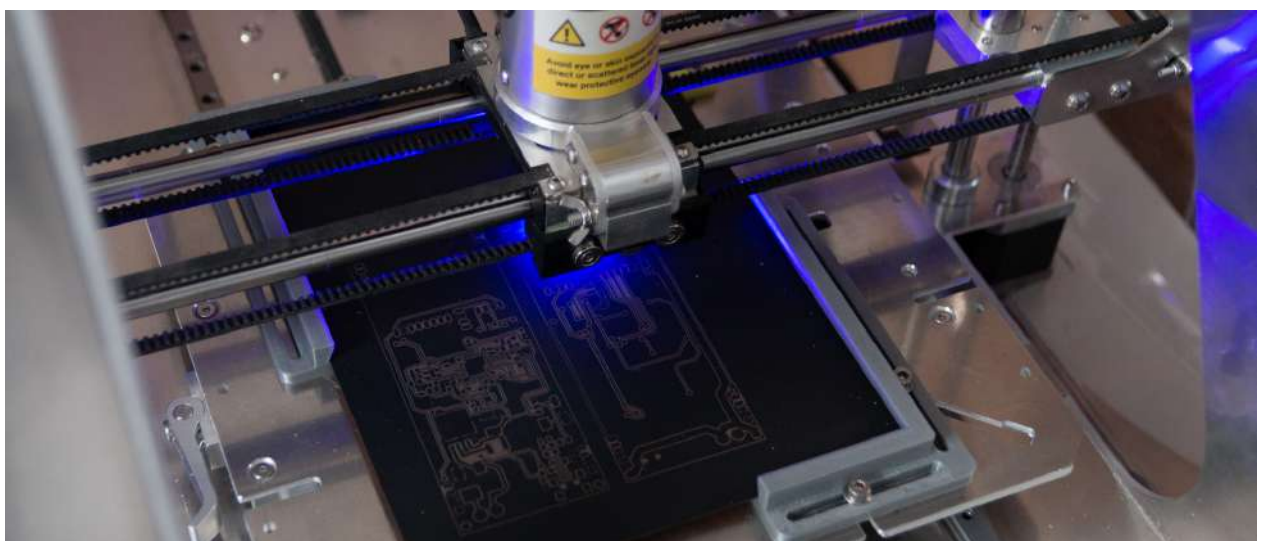
3D printers gained the attention of a broader audience in the second decade of the XXI century with a few open source project which offered affordable additive manufacturing machines, simultaneously sparking a market for future 3D printer manufacturers. Since that time 3D printers evolved, even surpassing the function of 3D printing. Nowadays, thanks to multitool 3D printers like the ZMorph VX, users can create complex, multi-material projects, including a PCB board. With this use case, we'd like to show you how advanced are multitool 3D printers today. The project you're about to see wouldn't be possible with a typical single-purpose 3D printer.



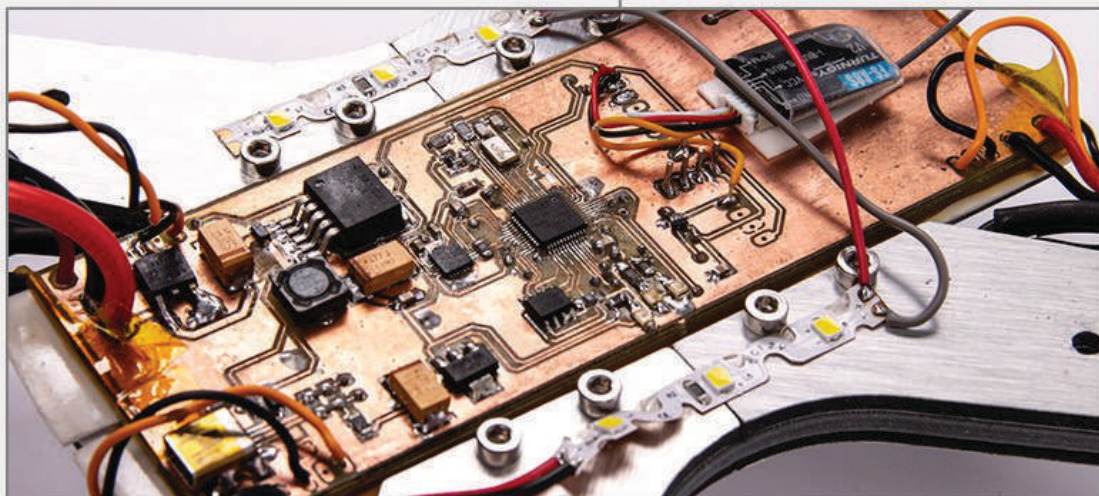
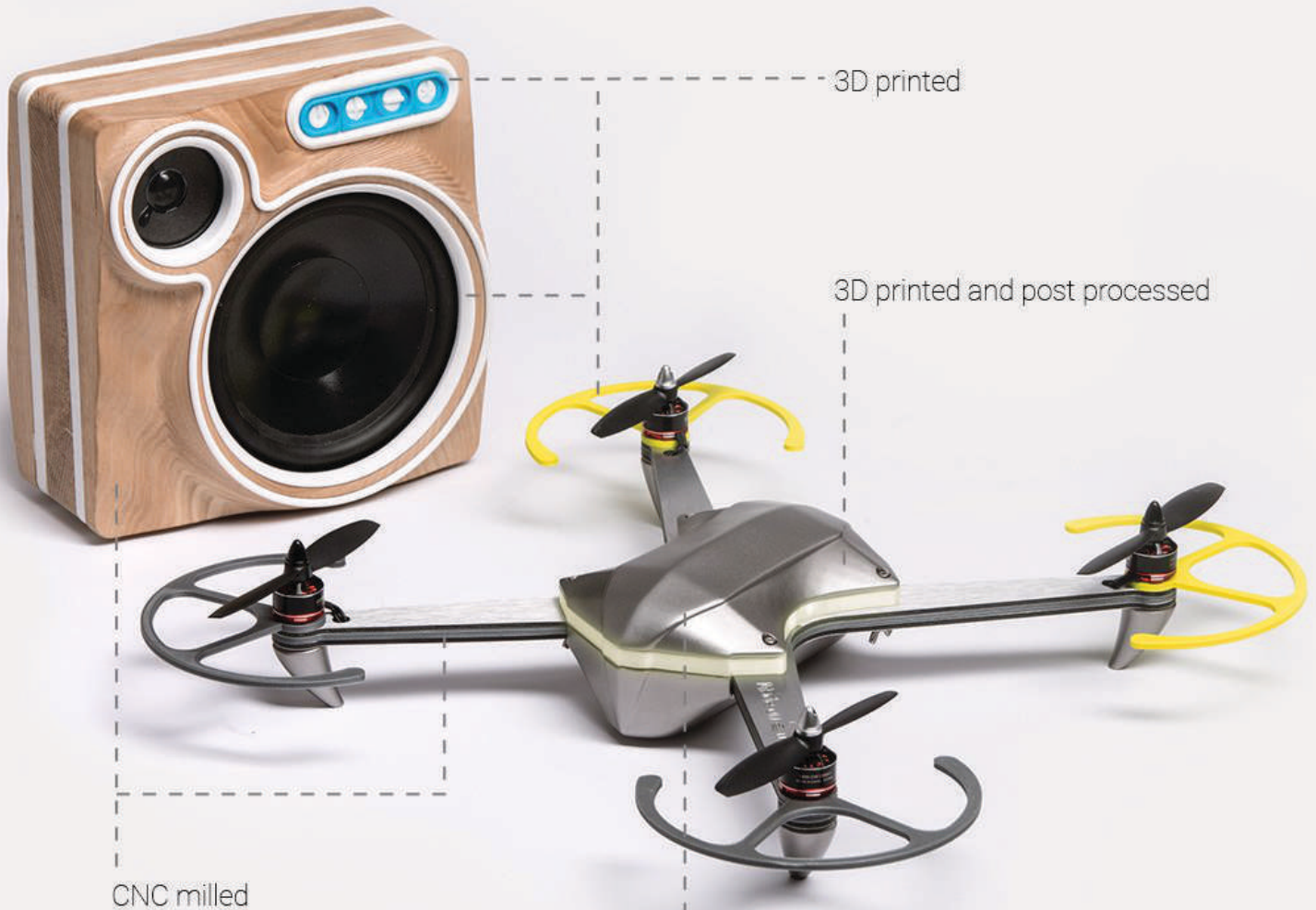
In order to make a fully custom drone we used all of ZMorph VX fabrication methods. 3D printing with ABS was used for the electronics casing, propeller guards, and landing gear. From a 3D printing toolhead we switched to Laser PRO toolhead to etch a PCB design on a PCB copper laminate plate. Next, a CNC PRO toolhead was used to cut the frame from lightweight and sturdy Dibond composite, and also to cut out the form of the PCB from the previously etched copper laminate. Then we took some standard electronics to make the drone “alive”, like sensors, main processor, battery, radio control remote. Finally, we made final post processing touches by painting some elements of the drone.



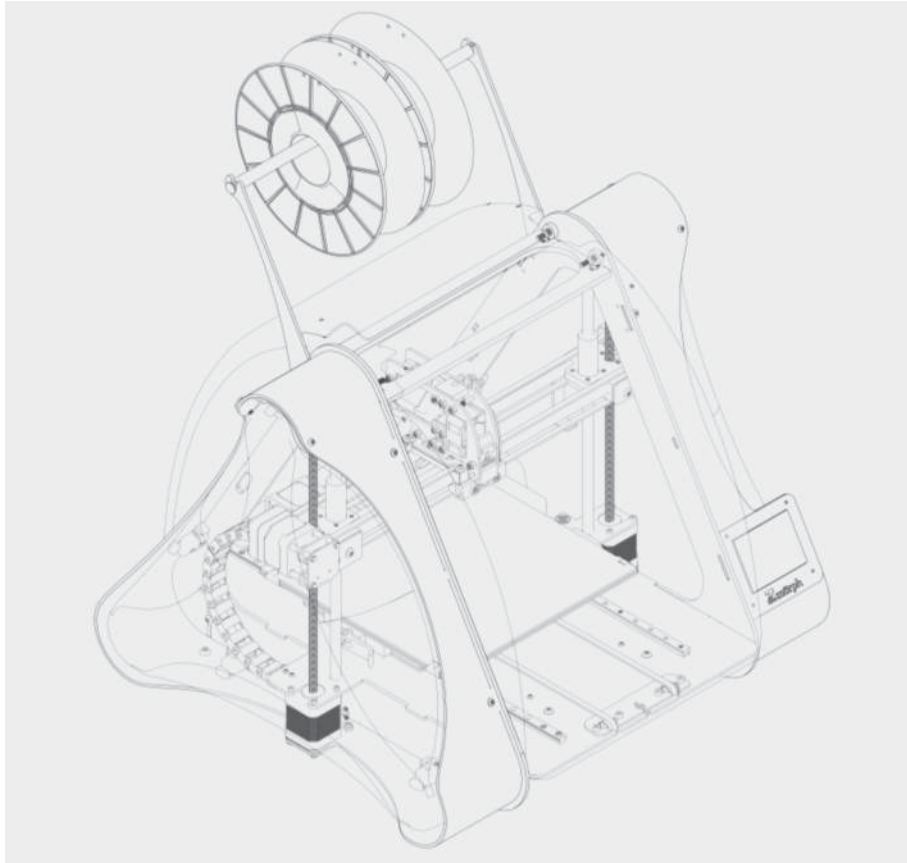
We combined all three ZMorph fabrication methods: 3D printing, CNC, and laser. We used some ABS filament, Dibond, PCB laminates and some electronics. This multitool 3D printer allowed us to make an awesome looking and functional drone within a desktop workspace. The same process can be used for making prototypes, showcase models and even low-volume production - proportional to the amount of owned 3D printers. A drone is only an example because the range of ZMorph’s possibilities is really vast - for more check out our catalog at zmorph3d.com/catalog.



A 3D Printer Beyond 3D Printing



Laser etched



ZMorph VX Multitool 3D Printer

Multifunctional environment with dedicated software ready to be the center of manufacturing companies, science labs, FabLabs, and academic institutions.

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