

## Chapter 2: Machining

A modern machine shop will have various machining tools at hand to fulfill the multiple tasks associated with such complex shapes. The top of the line machine has got to be the 5-axis CNC machine. While the more traditional 3-axis machine will work on only (you guessed it) 3 axes (up/down, left/right and front/back) the 5 axes one can actually pivot its mechanical head to follow much more sophisticated shapes and contours. That allows us to have a much smoother looking housing in the end, and very importantly, to shave of as much excess material in order to lighten up the final housing shell.

This whole machining process is so visually intriguing that I am sometimes caught gawking at the window for minutes, just like some poor sap staring at a washing machine at the local Laundromat. But hey, bite me, I like my job!

In order to have a complete housing we will need two aluminum blocks -- one for the front portion, and the other for the back. To start off, the machinist will insert a block of raw aluminum of a specific alloy into the machine.



Then cutting tools will be loaded on to the dispenser and the process will begin.



From this first procedure will emerge the internal hollowed side of the housing. The block will then be flipped over, the proper program will be loaded, and the necessary cutting tools will be installed. From there, it's a just simple "press enter" and the exterior details will be fashioned out. The housing now starts to resemble what it will look like when completed.

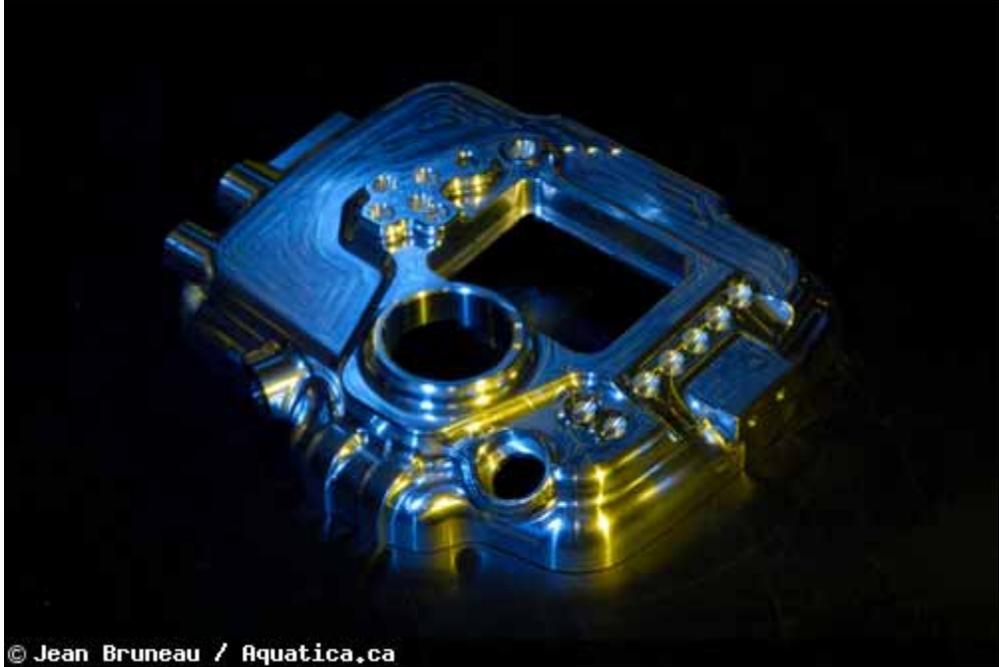


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From this process comes a shiny, and in my opinion, stunningly beautiful piece that captures and reflects light in a way only a grease monkey like me can appreciate. Alas, this piece of art also has razor sharp edges that will rival some of those sharp objects found underwater. This sharpness will need to be addressed and this brings us to the next chapter, the treatment stage, in which the housing shells are prepared for painting and assembling.



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