How I Make a Cantilever Armrest
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(Preliminary Rev. 2 7-12-2018)

I find armrests for acoustic guitars both ergonomically functional and if done well, aesthetically pleasing. I enjoy both armrests and arm bevels. In a previous article I showed how I make a transitional arm bevel. Here I will show you how I execute a cantilever armrest. Why do I call it cantilever? Because the upper part of the arm rest (when looked at in cross section extends out past the lower section that glues onto the guitar. There are several advantages to this. Here, I will just mention 6 advantages.

1. You are still making use of the full soundboard and not taking away from the lower bout area as incorporating something like an arm bevel would. On the cantilever armrest, the surface area that is glued to the soundboard does not extend past the lining (whether kerfed or solid) that is beneath and supports the soundboard
2. You can make a cantilever arm rest for an existing guitar as a retrofit, and it will look great if executed carefully. You don't need any additional support block inside the guitar as you do when designing and implementing an arm bevel.
3. It has the potential to allow the guitar top to fully vibrate because depending on your style of play, your arm will rest on the...well… “arm rest” instead of the guitar top and you are therefore not dampening it.
4. Following just a few guidelines, the design opportunities are wide open to what you or a customer may want as far as dimensions and aesthetics.
5. They are relatively easy to make, and can take anywhere between 45min to 3 hrs depending on your woodworking skills, tools and understanding of the task at hand.
6. They are very stable and strong once made, with very low probability of detaching once glued.

Instructions

First select a piece of material that is large enough (length, width and height) to make your arm rest. Remember, even though your armrest may end up being thin, the width is determined by the curve on the lower bout and how big you wish to make the armrest. Here, I am getting some ebony to work out my armrest. I rough sketch the material I will be cutting out.

Holding on to the material and turning the guitar on its side, I also sketch in the outer edge using the lower bout top edge as a guide for my pencil.

I now cut out my rough shape for the armrest on my bandsaw. Surely we all want to be conscientious about limiting any waste.

Do not throw away the cut-off. You may be able to use it for something else, like a bridge, or even another armrest. Either way, plan things out to limit waste.

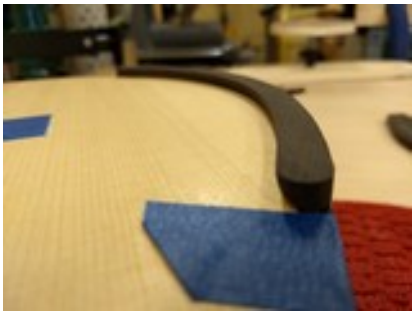
Here is my roughed out armrest from the bandsaw. At this point, I refine the outer edge of my armrest to make sure the contour follows the lower bout exactly. I make use of both my bandsaw and my spindle sander to accomplish this.

I now determine how wide I want my armrest to be. Using the outer contour, I place a ruler and mark off 12mm (~1/2”) along the curve to give it a uniform width for this particular design. Remember “Your guitar, Your rules!” You have flexibility in your design. Being that this is mostly refining of the shape, I use my spindle sander.

Here are a couple of pictures of the armrest with finished edge contours, including rounding off at the ends. Being that the overall limits of the armrest are now defined, I place some tape on the guitar at each end of the armrest so that I make sure to place it at the correct location every time from now on as I continue to define and finalize the look of the armrest.

I verify the height of what I want the armrest to be and thickness it to final height on my thickness sander. I now determine and mark the edges of the inner and lower sections that form the glue surface and the underside/inner taper. I also allow for some thickness along the top inner face to be rounded off later. These pictures indicate material (white cross-hatch area) that will be removed with my spindle sander.

The material on the inner face is removed, again, using my spindle sander. I sand the edges as uniform and consistent as possible. This will make any final sanding by hand easier as I soften those edges. In this picture note the lower section that will glue to the top. It does not exceed the width of the lining beneath the soundboard. This allows for the full soundboard to vibrate as originally designed.



I now measure by eye and mark off the outer top section to remove material to allow for a comfortable surface for the player and also be aesthetically pleasing. I make sure to be generous with the curves and softening of the edges. The rounded edges should be significantly greater than what would typically be accomplished by just rounding off the bindings and not have an armrest to begin with. Again, I try to remove material to allow the outer faces to be be as uniform as possible in order to to make final hand sanding and blending easier.

Below is the armrest in its final shape and form before installing. I still have to do final prep work on the guitar before finishing. I will tape off the guitar top at the area to allow for the armrest. The armrest will be glued on after the bridge, as one of the last items to complete the guitar.

Below are a few pictures of the completed guitar. I hope you find incorporating an armrest in your guitars as worthwhile as I have. All the best. - Rolo