An Easy to Make, Nice Looking Project Box, version 1.1

By R. G. Sparber

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This box is made from aluminum extrusions. Nothing was measured. It is all "cut to fit".

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I started with some angle which was used for the ends, the channel which is the body, and the plate which is the top.

First I cut off the desired length of channel and squaring the ends on my mill. Then I milled the inside of the channel wide enough and deep enough to take a 9V battery with about 0.01" to spare.

Then I cut two pieces of angle a little longer than the inside of the channel. These were squared up for a close fit in the channel. I used the channel as my gage in order to avoid measuring. The lower edges of this channel was sanded to have a slight bevel. This was necessary since the inside corners of the channel were not perfectly square. My end mill has a very slight rounding on the end.

The top plate was cut after the rest of the box was complete.

The screw on the right is 6-32. The screw on the left was supposed to be 6-32 too but I accidently ran my clearance drill through the channel. The easiest recovery was to go up to an 8-32. After the screws were set, I placed the box on my belt sander and made them flush.

The box is my third attempt at using my new Harbor Freight® powder coat system. I improve with every attempt.

I have not settled on the best way to secure the top. I could run screws through the top and into tapped holes in the angle. I could also replace the screws shown above with longer bolts that capture the top. Both approaches eat up space inside the box. On the other hand, making the next box longer is easy to do.

This approach can be used for a wide variety of boxes. It could also be made of steel rather than 6061 aluminum.

I welcome your comments and questions.

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