

Deco Cover Modification

Summary

This procedure describes how to modify the Create® 2 Deco Cover to add mounting features and add wire routing holes.

Introduction

So you have made your robot move using a laptop and now you want to add a project to the top of your robot. By following these instructions you will create mounting bosses in the deco cover that you can use to mount your project. In addition you can drill a hole in the deco cover to uncover the serial port and cut slots in the cover to provide wire routing access to the vacuum bin.

Tools Needed

- Drill
- Hammer (optional)
- 1/2" (or 13 mm) drill bit.
A step drill bit works, too.
- 5/32" (or 4 mm) drill bit
- Clamps (*optional*)

Supplies

18-8 Stainless Steel Flush-Mount Captive Nut, 4-40 Thread Size, .062" min Panel Thick for example, (*Available from McMaster-Carr, Part Number #94674A490*), or similar.

Procedure

1. Remove the vacuum bin from the robot.
2. Remove deco cover by pressing down in the center of the robot with one hand and grasping at the rear of the deco cover with the other and pulling up (it requires significant force).
3. Print out the [deco cover drill template](#) at 100% scale, fold template in half on the indicated line, cut out per instructions on the template, and attach to the deco cover bottom side.
4. Using a center punch, awl, or nail, mark the hole centers for the holes you want to drill.
5. Remove the template.
6. Clamp the deco cover, bottom side up to a scrap piece of wood so you can see the marks for the holes. This will help make clean holes and avoid drilling holes in your work surface.
7. Drill the deco cover:
 - Option a:** 1/2" (or 13 mm) for serial cable (1 hole)
 - Option b:** Original Create mounting holes (green on template)
 - Use 5/32" (or 4 mm) drill for original Create mounting holes (green on template)
 - Press the 4-40 flush mount captive nut in from the bottom side of the deco cover.
 - Strike with a hammer to secure the nuts in place.
8. While you have to cover removed, drill any other mounting holes desired. **DO NOT** drill into the robot itself.
9. Remove the clamps from the deco cover and board.
10. Press the inserts into the deco cover from the backside so that they protrude out the face of the deco cover.
11. Re-install the deco cover on the robot.
12. Re-install the vacuum bin in the robot.
13. Now you can safely screw your project into the threaded inserts. Make sure the screws are short enough so that they do not bottom out on the robot.

