SUMMARY

Office chairs don't roll well on carpet, and the wheels mash it up over time, making it look ragged. Making wide, smooth feet lets the chair glide on carpet instead of rolling.
Step 1 — Office Chair Glides

- I decided to make my feet 5 1/2" in diameter. Wide feet spread out the load more evenly, reducing pressure on the carpet.

- The next choice is what material to use. I used a layer of 3/4" MDF for rigidity and height, on top of a layer of 1/2" high-density polyethylene (HDPE) for smooth gliding.

- HDPE is my favorite plastic to work with. It's almost as slick and nonreactive as teflon, easy to work with, and one of the cheaper plastics. My local TAP plastics sells a name-brand HDPE called Seaboard. It's the same stuff used to make plastic cutting boards; milky white with a slightly greasy feel.

- If you don't have MDF and HDPE, don't worry! You just need something rigid and smooth. Plain wood would probably be fine, especially with a few coats of polyurethane to make it smooth.

- I marked the circles using a roll of tape that was about the right diameter, cut them with a bandsaw, and then cleaned them up on a stationary sander once I attached the MDF to the HDPE. If you don't have a bandsaw, don't worry; there are lots of other tools that can be used to cut rounds.

- HDPE is almost impossible to glue, so I screwed the MDF into it instead. I wanted the bottom to be perfectly smooth, so I installed the screws from the top, being careful not to strip the soft plastic.

- Almost there! Next I used my biggest roundover bit on the router table to make a rounded edge on the plastic, for smooth gliding. The roundover bit makes a beautiful edge, but sanding would have been just as functional.

- Finally, I popped the casters out of the chair, and installed the feet with a wood screw. (Two screws would have been better). Now my chair glides just as easily it did with the casters, but without all the carpet abuse.