



Coaster - F1 Engine Nozzle Injector Plate



InnesPort

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Summary

A drink coaster for rocket enthusiasts that allows you to thrust beverages upon this thrust producing injector plate!

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About the design

This coaster is designed after the Saturn V F1 rocket engines nozzle injector plate. I'm assuming you're reading this because you're as nerdy as me and already know what this is, but for those who don't: the injector plate is what houses fuel and oxidizer injectors that spray and mix the fuel and oxidizer in the engines combustion chamber where it is then ignited to produce thrust for the engine. The large, raised features that really distinguish this design are the baffles, which helped to reduce combustion instabilities caused by combustion shocks and turbulence. Read more about it here: [F-1 Engine Injector Baffles \(heroicrelics.org\)](https://heroicrelics.org)

For my coaster, I decided to go all out and print it with Nylon Carbon Fiber for the most overkill coaster possible! (the real thing was manufactured out of mostly steel and copper, boooorrring)



Print Tips

0.4mm Nozzle

I suggest printing at 0% infill and 3 perimeters. Everything was sized to minimize lots of tiny retractions.

0.6mm Nozzle (as shown in photos)

I suggest printing at 0% infill and 2 perimeters. Everything was sized to minimize lots of tiny retractions.

Model files



coaster_f1-fuel-injector_v1_001.stl

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