

Make:
technology on your time

Weekend
Projects



Get your motors running, put your safety helmet, ear protection and safety glasses on, steady your fire extinguishers and prop open your first aid kit... Now you're ready for the ultimate in diy sports – Shovercraft! Combining all the thrills of a personal hovercraft with the targeting challenges of shuffleboard, shovercraft is the ultimate in frictionless fun!



Making a hovercraft is well within the capabilities of anyone who's got some basic tools, time and a leaf blower! Find a friend and make two, or three, or four. If enough people make them, we may just have to have a worldwide shovercraft tournament this spring!

But don't wait until then; a hovercraft will work on any flat surface... even snow! With more power, it could be possible to float on water too. Many opportunities for improvement and innovation await the shovercraftonaut!

Tools needed:

Saw
Heavy Duty Stapler
Hammer
Screwdriver/Drill

**Materials Needed:**

Staples
Leaf Blower – The most powerful one you can afford
Some PVC or ABS plastic elbows and piping, exact pieces depend on your leaf blower.
3'x4' plywood
4'x5' of 6 mil plastic
Duct tape... rolls and rolls of it!
Decoration materials... hazard tape or spray paint
Plumber's tape
1/2 " screws
washers
Polycarbonate (lexan) or some other plastic to act as the "grommet."
Chair

Instructions:

I got this idea from Jason Bradbury go check out his tutorial to see my inspiration!

There are a bunch of folks who have made their own hovercrafts. Here are some other interesting hovercraft links: [1](#), [2](#), [3](#), [4](#), [5](#).

Get your plywood to the right shape. I cut the front corners off. Make yours whatever shape you want.

Cut the legs off a chair and attach it to the plywood.

Duct tape around all the edges of the plywood.

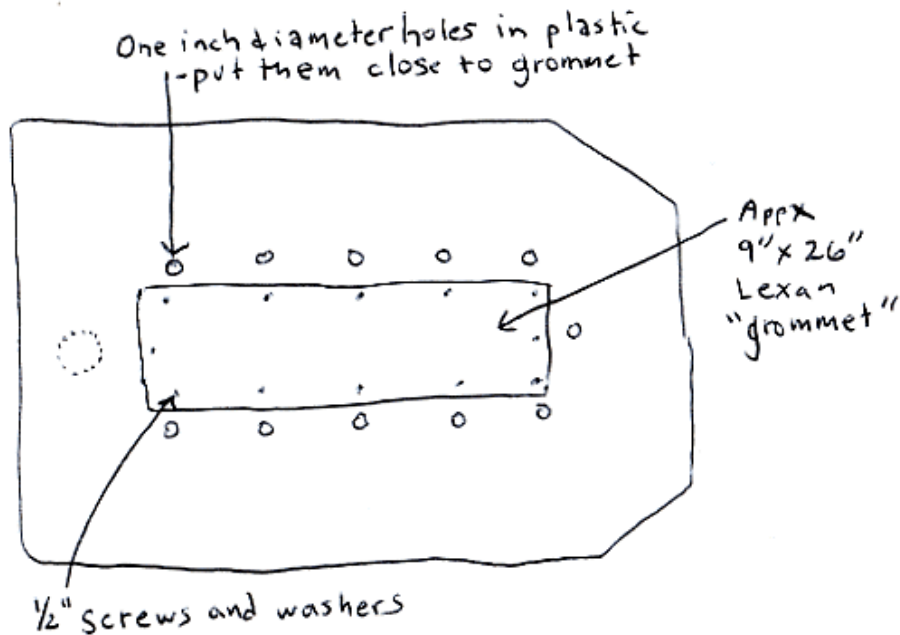
Drill a hole for the air to go into. It should be near the edge of the plywood. Add duct tape to the inside edge to avoid sharp edges.

Lay down your plastic and cut it to be bigger than your plywood. Then fold it over and lay a piece of duct tape over the edges so that the staples will go through the tape and then the plastic.



Staple it a lot! We used an excessive amount of staples and it worked well. Then duct tape over your staples, making sure to overlap over onto the plywood to seal it even better.

Attach a grommet on the bottom with 1/2" screws and washers. We used polycarbonate (lexan) but you could use the plastic from a storage container too. Ours was approximately 9"x26"



Cut 1 1/2" diameter holes very close to the grommet for the air from the blower motor to escape into the inner chamber before flowing out underneath the plastic bladder.

Attach your leaf blower motor. We found that plumber's tape, which is a metal strip with holes in it for screws, worked well.



Take it outside, get all your safety equipment on, and start it up. Remember, it's basically frictionless so hills are not a good idea and watch your ankles!

A big thanks goes out to all the folks at hackerbot labs who helped make this a super fun project!

Note: Your safety is your own responsibility, including proper use of equipment and safety gear, and determining whether you have adequate skill and experience. Power tools, electricity, and other resources used for these projects are dangerous, unless used properly and with adequate precautions, including safety gear. Some illustrative photos do not depict safety precautions or equipment, in order to show the project steps more clearly.

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