

# **Independent Art Project**

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# Design and build a home gym

Upcycling, materials found within my yard, in a design that is both useful and beautiful to help me cope with isolation, stay fit, and to learn new carpentry and design skills.

## Materials Used:

- Spruce 2x4s scraps
- decking wood scraps
- plywood scraps
- broom handles
- birch tree sawed down, peeled and sanded to be smooth
- bird cherry tree trunk cut down - bark left on it for texture and colour
- cement mix
- plastic fishing rope that was picked up cleaning garbage off of an ocean beach
- climbing carabiners
- metal hooks
- old plastic buckets for molds for weights
- screws instead of nails for strength and stability



# Challenges

- A design that was stable and safe, and useful for a proper work out
- Aesthetics - most gym sets are sterile looking and machine like
- Getting weights that were good to lift and that would be heavy enough to be useful, but also that would look good and feel good, that would be safe on the barbell and not swing around
- Wood - get splinters when used and it will warp in the weather



# Material choices

- Steel is usually used for gym sets, wood is more rustic, wood has a warmer feel, and freshly cut and peeled wood smells amazing, and looks friendlier.
- I deliberately choose different woods with different colours and textures to make the set more interesting.
- For example the top support bar is bird cherry (alder) that still has the silvery shiney bark and red underneath, compared to the weight bar that is a smooth peeled birch tree for lifting.
- The vertical supports have a mixture of wood types for strength and for contrast.
- I tried using kettle bells for the weights for the barbell but in the end molded my own weights instead which looked and felt better.



# Method and processes:

## 1. The Barbell

At first I tried using a wooden broomstick handle for the bar bell, but it wasn't strong enough, it would bend when I added too much weight to the ends of it. This led me to look for something stronger, I then tried a metal curtain rod, and then different tree branches and smaller tree trunks. In the end, a birch tree was the straightest and strongest one.



## 2. Support

For vertical post stability, I tried diagonal lateral supports, but it didn't work, and it looked terrible. Instead, I decided to beef up the vertical strength with more wood, and then secured a top horizontal support and a bottom horizontal support.



Photo: bird cherry tree is the top support



### 3. The Rack

The rack that holds the barbell has four types of wood in different colours and textures, Spruce, Pine, Balau and plywood. It had to have four different holds, for the barbell, for doing bench presses, for the top rope, and for the pull exercises.



## 4. The Bench

I next needed a bench to fit the gym set up. I had to build one with the right dimensions, that would also look good with the set. The legs are at angles to increase stability, so getting the height right and keeping it perfectly level was a challenge. Screwing the legs into the bench was the toughest part, because of all the different angles of the wood and the lack of tools I had, so I had to use rocks and buckets to support the legs while securing them in place.





## 5. The Weight plates

To make the weights, I was supposed to add sand to the mix, but instead I only used cement mix and water, making a smoother and stronger finish for the weights.



# Finished project

A rustic home made gym set!



# Final thoughts

I loved making, and using the home gym set up because everything works well and it is a good quality build. All the parts came together well to make a good design for the rack and the bench. The weights are heavy enough to challenge me and the rack and bar can support the weights with ease. The set up as a whole is so much fun to use. I loved working with the wood, cutting it to all the exact measurements, and figuring out what would work best to make the gym. I look forward to modifying and improving it as needed, the more I use it.

