Conceptual Statement
At present my bench press weights are sitting in a pile on the floor of my dad’s shed. They are constantly being tripped on by me and my family doing things on the floor. While on the floor they collect moisture and are starting to rust. It’s also a pain having to constantly move or lift them.

I need some way of storing my weights in a safe, secure, and stable way.

My Specifications:
- must be able to store at least 4 kg weights, 2.5 kg weights, 2 kg weights, 1.5 kg weights, 20 kg weights, and the bench press bar
- must have any sharp edges that might hurt people or damage other things stored in the shed
- must not rust
- must not cost more than $10
- each weight that is placed on and off the product must be able to do so in under 15 seconds
- must not take up more than 1m³
- must be the right height so I can reach all the weights

What I am Starting With:
(Bench Press Weights)

Size/Weight:
The size of the weights that I am using are a range of double objects with diameters of 40mm to 50mm. Also the distance of the objects range from 50mm to 100mm.

Shape:
The product I am making are large circular disks.

Weight:
The weight of the product is being varied on many different weights. The lowest is 160kg and the highest is 280kg.

Materials:
The weights are made from two different materials. The discs are made from 7075 aluminum and the rest is made from steel.

Special Considerations:
- I will make sure my storage product is strong enough to be able to handle the weight that will be placed on it (100 kg)
- I will make sure the base of the weights will sit in an area that is solid enough to ensure the weights are not going to break or fall off

I wanted to make sure the rack would fit in the area it was intended for. I took it home and placed it in the corner of the shed. I found that it fits there well and doesn’t stick out so no one will get hurt. It sits stable on the floor, I can reach the top rack, I can easily get the weights off. Dad said it’s OK sitting there in his shed.

So I reckon it’ll be just right for the job.