

## Application No. 522: Foam rubber sculpture

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### A gift from "Cool Uncle Charlie"

This very special toy (see video) was a gift for my nephew Alex.

I proudly present the stars of this video: My brother Frank and I are the workers. Alex and his cousin Jasmine are the little Godzillas who destroy the masterpiece in the end. The whole project is overseen by Aja (chief architect) and Christian (engineer).



Video

### Material needed:

- 10 mm thick foam rubber (from an old sleeping pad)
- 240 K-08-C ([www.supermagnete.fr/eng/K-08-C](http://www.supermagnete.fr/eng/K-08-C)) sphere magnets
- Strong adhesive tape
- Felt in various colours
- Plenty of sewing machine thread

### Motivation:

I chose a solution with magnets for the following reasons:

- **Aesthetics:** Other connections would have been detrimental to the geometry or the smooth surface. Since toys of that size are practically part of the furniture, it helps when they are stylish - the parents have to like them too.
- **Flexibility:** The corners of all polygons fit together, and the structure can be expanded as desired.
- **Strength:** Thanks to the strength of the magnets, big and stable structures can be built in no time.
- **Simplicity:** Assembly is simple and doesn't require especially good fine motor skills - if those two clowns in the video can do it, anyone can.
- **No wear and tear:** The embedded magnets are well protected, so they can snap together countless times without being damaged.

## Creation:

I cut out various polygons from the foam rubber. I chose this material because it is tough, flexible and light. I used thick adhesive tape to glue the sphere magnets in every corner of the polygons. Then I wrapped the foam rubber with soft felt and sewed it up on all sides using a sewing machine. What's important: The magnets are out of reach for the children - even if the felt would rip, the magnets are still covered by thick adhesive tape.



## How it works:

When two magnets draw near, they automatically align under the adhesive tape and attract each other. If the magnets were firmly affixed, you wouldn't be able to assemble the polygons as you wish. The biggest challenge was to attach the magnets securely and, at the same time, give them enough leeway to turn in all directions. In addition, the magnets had to be placed as close to the corners as possible, so the distance to the next magnet would be minimal.

The following pictures show a few possible combinations of this toy.





Was the whole thing expensive? As a matter of fact, it was. It took a lot of sphere magnets and many tries to be able to build the sculpture. But if the children (and their uncles) ever get tired of this toy, they can cut up the polygons and use the sphere magnets for something else.

**Note from the supermagnete team:** We normally don't publish customer applications involving young children. We made an exception here because the magnets are totally covered and protected. But magnets are not toys - swallowing magnets can be fatal for children! Please note our safety tips ([www.supermagnete.fr/eng/safety-neodymium](http://www.supermagnete.fr/eng/safety-neodymium)).

#### Articles used

240 x K-08-C: Sphere magnet Ø 8 mm ([www.supermagnete.fr/eng/K-08-C](http://www.supermagnete.fr/eng/K-08-C))

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