
The Hive

concept from c-base for 34c3

STORY

Space, the final frontier. ~~Under a huge galaxy~~ humans and aliens alike have found a cosy habitat on a new planet. The structure offers 11 hexagons to any cyber competence center to meet, work, hack with 45 m² each. A space with a stage for workshops and seminars will also be provided. The hexagons are grouped around a central atrium-space with the iconic c-base sub antenna in the center. The antenna connects the hive-habitat with the galaxy, serving as central post, black-hole and widely visible meeting point. ~~The arms of the galaxy curl in a spiral shape around the top part of the antenna.~~

c-base used to be the "Art & Beauty Department" of Congress, when the congress still took place in the HKP (Haus am Köllnischen Park). Unfortunately, Congress has grown so much, that one single crew can not be responsible for all of the "Art & Beauty". We created this concept as an answer to the question: **"What's the biggest structure we can make for Congress?"** and would love to reignite our heritage of being the Art & Beauty Team by supporting the Assembly- and Deko-Team with this structure.

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TOPIC

This year the assemblies will be clustered by topic. We provide a hive for all the busy worker bees that turn virtual bits into atoms in the real world. That includes all kinds of digital fabrication:

- 3D printing
- Plotting
- Laser cutting
- Sewing, knitting, and embroidery
- Open source hardware
- Mechanical things

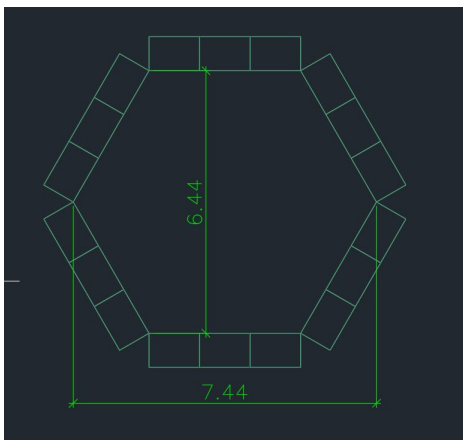
If you plan to build an assembly with your group that touches on any of these topics or if you like to bring any of the listed equipment, please do so, but make sure to be early and transparent with your Wiki-Page about your

HEXAGON

We welcome and invite between 8 and 12 assemblies to move in into one of the Hexagons or to share a Hexagon with another group. Most hexagons will have a booth-like (market stand) opening towards the central atrium, allowing for interaction and communication with passerbys, and one to two openings for humans and aliens to access the hexagon. Each hexagon comes with Tables and Chairs and has a lot of wall-space to hang banners, posters, flags, etc. Most hexagons will have a lot of "display space" to display artifacts, machines, projects. Other hexagons will be more secluded and allow for small-group (up to 20 hackers?) hack sessions (think old-style hackcenter, but smaller areas)

HABITAT STRUCTURE

We will build the hexagon structure will be from standard wire-cage pallets ("DB-Gitterbox") which a resource that is cheap to rent and is available in large quantities.



The structure needs 280 – 300 wire-cage pallets. We will stack them from 1-high up to 3-high (not higher). Three of these wire-cage pallet-stacks form one side of a hexagon, a side will thereby have 3.72 m in length, which

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forms approx. 45 m² space on the inside of each hexagon.

Most of the 3-high stacks, but only the third box on top, will be lit up. We will pick one long "chain" through the hive. This "row" will be covered from the inside or outside with fabric and lit up from the inside with RGB-LED DMX-controllable lights to provide illumination and decorative lightning.

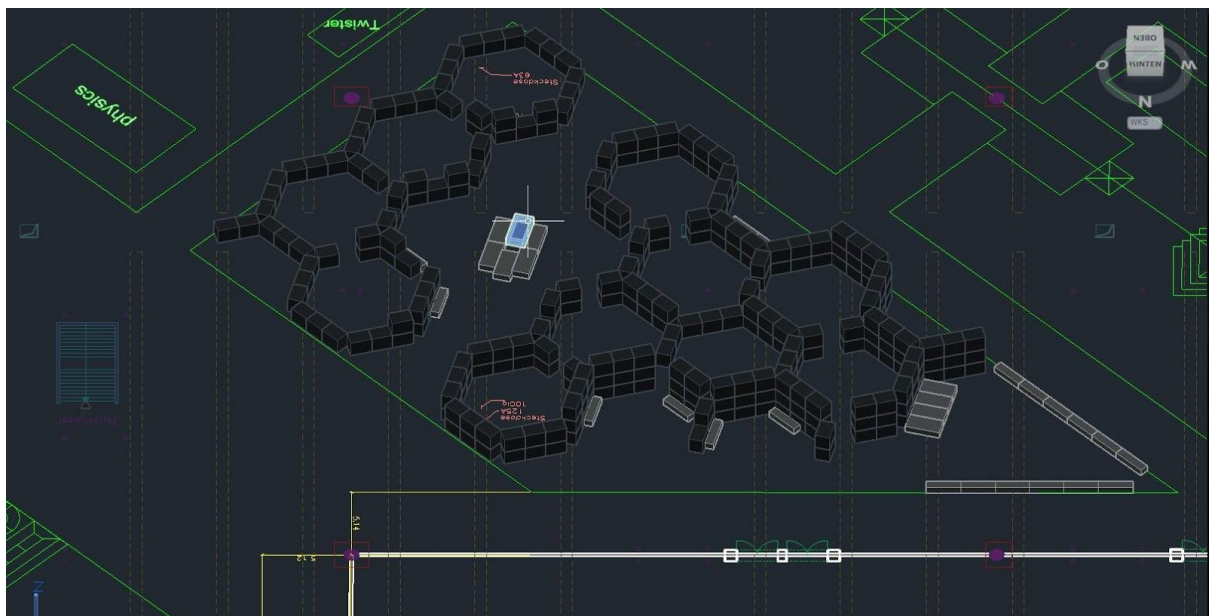
WIRE CAGE SIZES

- Every Box uses a floor space of 80 × 120 cm.
- A single box has a height of 97cm
- Two boxes stacked on top of each other have a height of 190u cm and
- Three boxes stacked on top of each other have a height of 283 cm.
- These boxes can be safely stacked up to five levels high, although this will not be necessary for this installation.

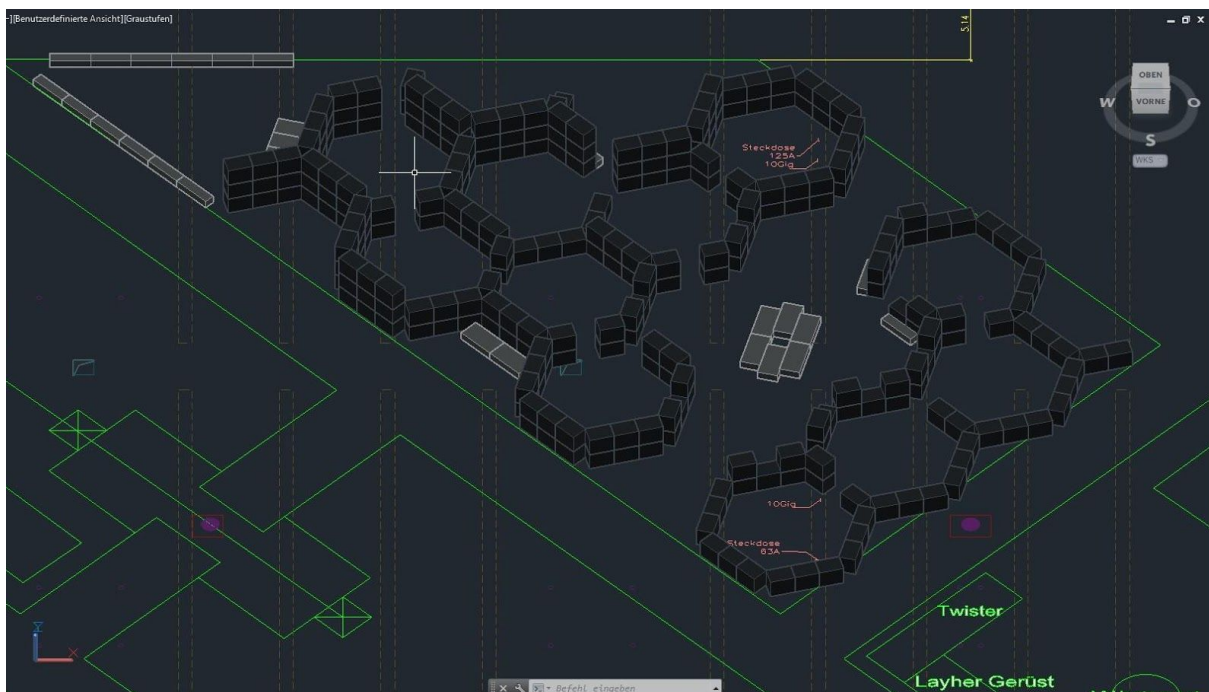
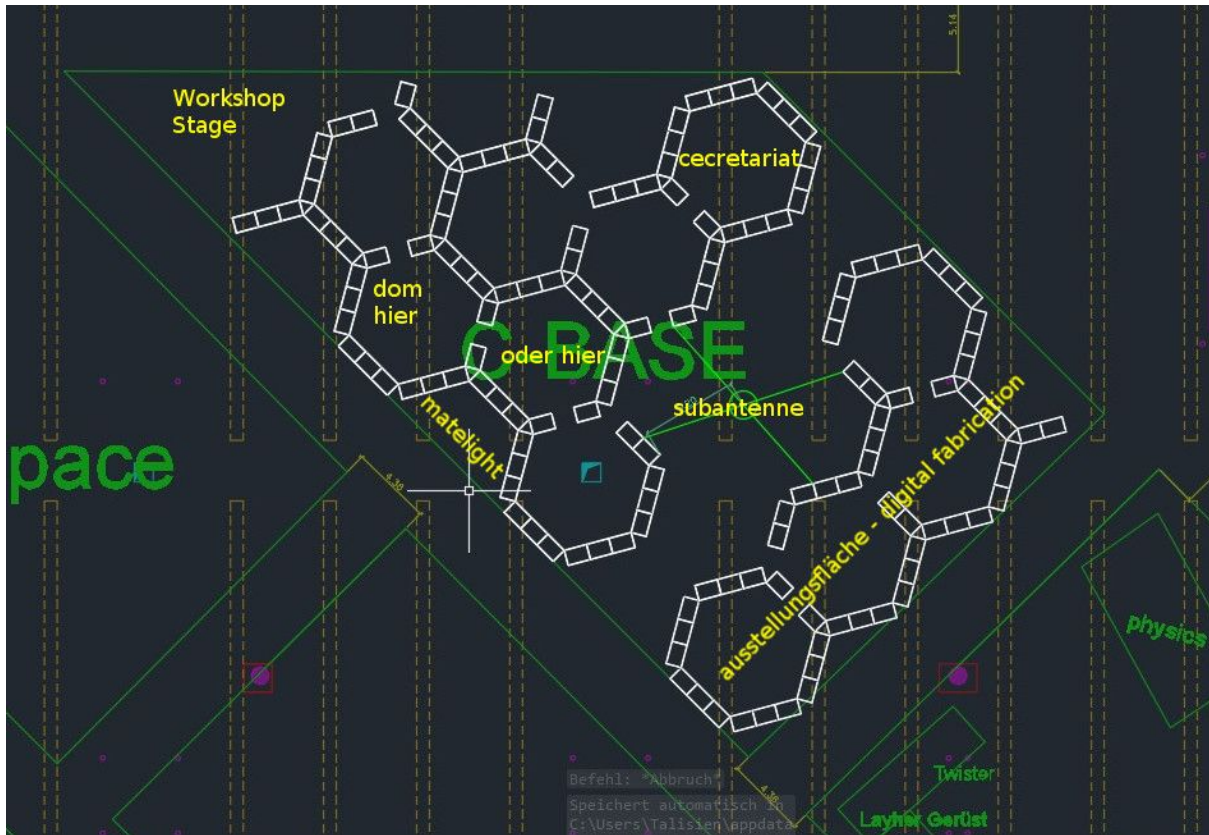
MORE NUMBERS

- 30 lit up boxes as 3-high stacks
- 11 combs / waben
- 282 boxes total
- 6 free boxes (no plans for them yet)
- 60 "table" wire cage pallets
- 10x standard 2m x 1m bütec
- 18x half a Bütec, 0.5 x 2m

SKETCH OF HIVE



The red line is the wall to Lecture-Saal3 (name not yet known) The circle in the center is the iconic sub antenna of c-base and the center of the galaxy. Each small box is a wire-cage pallet. This configuration uses 288 wire cage pallets.



Towards the center of the structure most walls have a 1-high pallet and forms a booth/marketplace/display-area, surrounded by 2-high stacks. Towards the upper corner of the image there will be more 3-high stacks, towards the entrance-areas on the lower border and the left border the stacks will only be 1-high. We imagine rows of foil-plotters, stitching machines, 3d-printers and other machinery on the rows in the lower and left corner.

All the 1-high stacks will be covered by a cut-to-size piece of wood and one euro pallet underneath, that way creating a table at a comfortable standing height, a display-area, a counter or a stand for an installation.

STORAGE SPACE

The lower row of the wire-cage pallets can be opened from one side and allow for free storage of luggage, equipment, personal items. Participants need only bring their own padlocks. This way we can help to reduce the load on the cloakroom/wardrobe (especially in peak hours). It also allows for safe (locked) storage of equipment and personal belongings that are needed by the participants of the Cyber Competence Centers that are occupying the Hive.

WORKSHOP SPACE

In our current plan we want to make a small workshop space, which will be behind the upper row of boxes in the drawing. We need a small projector, a screen (roughly 2m by 3m), a small mixer and two wireless microphones for the workshop space. The workshop space will be open to walkways from two sides and will have a triangular shape.

SUB-ANTENNA

The central structure of the FabHive will be the [iconic sub antenna](#) build by c-base for the CCCamp 2015. This structure interfaces the galaxy above the structure with the habitat below the galaxy.

Next to our subantenna and slightly behind from the main view-axes we intend to build up a 6.5m diameter Dome, which will we will not cover up completely, but cover up selectively with individual pieces of (stretchy) fabric.

LOGISTICS

We estimate that the buildup needs to start around the 18th of December, because the delivery of the wire cage pallet has to be completed before the 23rd of December. We further estimate that we need some storage for the pallets, because pickup of the wire cage pallets can (currently) only happen at the 2nd or 3rd January. We need to find a way to have enough volunteers there for this, as the trucks will just show up and expect to be loaded / unloaded by us.

One big 40t Semi Truck can carry 96 wire cage pallet. Together with the event technology we estimate that we need between 3 and 4 full 40t Trucks of Materials.