



Building a house from materials printed with a 3D printer

We all love to construct. In this box, you will find several files for the 3D printer. With their help, you can print bricks, house roof constructions, foundation blocks, window and doors fragments. But if you are ambitious, try to create all these constructions yourself. You can use the online free version of tinkercad: <https://www.tinkercad.com/>. A tutorial completely for beginners which you will find on this link: <https://www.youtube.com/watch?v=60xflu-lqAs>.

But before printing bricks and other building structures, you need to calculate how many of them you will need. This is perhaps the most difficult task, this applies in real life also. People often have to go to the buildings materials store again and again because the initial quantities of materials have been incorrectly calculated.

Let's build a real classical house prototype.

House scheme and dimensions:

1. Select a building. It could be your home or school, or maybe your grandmother's house. Take some photos of that house from 4 different sites (north, east, south and west). Examine this building and measure its length and width. If you can't access it, go to Google Earth (there is a tool for measuring distances) and calculate the approximate dimensions of the house.

3. The dimensions of the house need to be reduced. You have to try and decide if the model will not be too big or too small.



Reduced building dimensions

4. Now that we have the length and width of the house, it's time to think about height. You can't measure the height with Google Earth. The standard ceiling height of a house is from 2.5 to 3 meters, often - 2.7 m. Talk to adults about the height of your chosen house or take the standard 2.7m.

5. Draw that scheme of the building, don't forget the windows and doors. Calculate how many bricks and other building materials will be needed. You will not be able to do without approximating values here.

Bricks:

Doors:

Windows:

Blocks os the roof:

Decorations:

Rafters:



6. Building of the house model is the most pleasant work. . In this lego-like task, we advise fixing the details of the house using hot glue.

A photo of your building.

A creativity work.

7. Take a look at <https://abiboo.com/projects/#filter=%5Bdata-id%5D> , take a little bit inspiration and build something unusual like house, bridge or entertainment place for children.

ABIBOO is an innovative international architecture and design company building the homes of the future. She developed a great concept of NUWA the first city on Mars <https://abiboo.com/projects/nuwa>.