Wooden bicycle trailer

https://wiki.lowtechlab.org/wiki/Remorque_%C3%A9o_v%C3%A9lo_en_bois/en

Dernière modification le 26/08/2021

Description
Two-wheel wooden trailer for transporting 2m50 objects.
Summary

## Contents

- Description
- Summary
- Introduction
- Video overview
- Step 1 - Definition of need
- Step 2 - Material recovery
- Step 3 - Construction of the wooden structure
- Step 4 - Fixing the wheels
- Step 5 - Link the trailer to the bike
- Comments
Introduction
This bicycle trailer was produced for the opening of the Low Tech Lab Gd Paris in Boulogne-Billancourt.
It was made from herringbone pallets at Simplon Lab.
It allows you to transport objects of 2m50.

Materials
- 2 herringbone pallets
- 2 bicycle wheels
- wood screws
- 4 decks
- 1 air chamber

Tools
- Crowbar
- Hammer
- saw
- Screwdriver

Step 1 - Definition of need
Before any construction project, it is important to define the need. In our case, we wanted to transport objects 2m50 long in Paris. The trailer can be used to transport other pallets, or to transport boxes, the structure is adapted accordingly.
It is also necessary to put down in writing the desired structure and to reflect in group on the feasibility of this structure. The width of a bicycle trailer cannot exceed 1m.

Step 2 - Material recovery
The pallets can be collected from craftsmen or professionals. Bike wheels can be picked up from bike shops.
The pallets can be dismantled with a crowbar and a hammer.
Step 3 - Construction of the wooden structure

On the wooden structure, there are 4 categories of boards:
- Plates 2 and 4
- The rafters 1 and 3

The structure must be mounted from the center:
rafter 1 -> board 2 -> rafter 3 -> plates + wheels -> board 4

Rafters 1 and 3 must be staggered. The rafters 3 must frame the bicycle wheels, so their thickness must be equal to the width of the wheels with plate.
Step 4 - Fixing the wheels

The wheels must be fixed before the boards 4.
The plates can be attached to boards 2 and 4.
Step 5 - Link the trailer to the bike

The trailer can now be attached to the bicycle rack. The connection system must meet the following conditions:

- bear the load of the trailer
- withstand a slight tilt of the bike
- be able to be attached and detached easily
- bear braking / acceleration (bear force in all directions)

In our case, we chose to fix the trailer with an inner tube.