



3D

3D PRINT REPORT

SCHOOL	COUNTRY
Šolski center Velenje, Šola za strojništvo, geotehniko in okolje (School Centre Velenje, School of Mechanical Engineering, Geotechnics and Environment)	Slovenia
PROJECT NAME	Mentor
Hayrack 1	Viljem Osojnik
STUDENT NAMES	DATE
Žan Ožir, Sašo Grobelnik, Tjaž Podhovnik	May 2023

A type of 3D printer	Anycubic 1.3
Used material	PLA
Filament diameter	1,75 mm
3D CAD program	SolidWorks
SLICER programs for 3D	Cura





SUBJECT OF MODELING ON THE TOPIC OF TRADITIONAL CRAFT AND CULTURAL HERITAGE

Hayracks are a distinctive Slovenian architecture that dates to prehistoric times. They are a special type of storage building used for drying hay, grain, and other agricultural produce. Hayracks are made of wood and have a characteristic roof structure that enables efficient drying of the crops. In Slovenia, it is still possible to find many hayracks that are part of the cultural heritage and tourist attractions. In Konovo in Velenje, there is a hayrack that represents an important part of the cultural heritage of the area. The Konovo hayrack is a freestanding wooden building with very steep roofs, typical of the Dolenjska region. The hayrack is built of wooden beams, connected with wooden pegs and forms three floors.

DESCRIBE THE WORK PROCESS

- Formation of working group, division of roles and tasks of group members.
- Selection of a suitable natural and cultural heritage object
- Field study of the hayrack
- Measurement of hayrack with mobile phone app and measurement devices (3D hand scanner and ruler)
- 3D modelling of the hayrack
- Additional processing, such as grinding, polishing and removing support structures for more complex parts.
- Gluing, painting and assembling of 3d printed components and parts of hayrack

DESCRIBE ANY DELAYS AND/OR INCIDENTS

Waiting for the heating table of the printer to warm up.

