Making a piggy box with a laser cutter

Every time a payment is made with cash, there is a tendency to accumulate loose change in pockets. At the end of the day, when emptying pockets, the question arises: where should these coins be stored? To address this issue, a custom “money box” was designed and built using a laser cutter and MDF (medium-density fiberboard).

The box was first designed in Creo Parametric, including a personalized text engraving. Once the digital design was complete, the outer contours of the parts were exported as DXF files. These files were then opened in RDWorks, a free software commonly used for laser-cutting preparation. In RDWorks, the appropriate cutting parameters were set before proceeding with fabrication.

The laser-cutting process ensured that the MDF sheets were cut with precision. After cutting, the individual parts were carefully assembled and glued together using wood glue. This step was crucial for ensuring the stability and durability of the box.

The main goal of this project was to gain hands-on experience with a laser cutter and to become more familiar with the workflow from digital design to physical production. However, the project turned out to be even more practical than expected, as the box has been in regular use ever since. Despite some wear and tear over time, the structure remained functional. When the box eventually fell apart, a simple reapplication of wood glue restored it to its original condition.

This small project not only provided a useful storage solution for loose change but also served as an opportunity to explore the capabilities of laser cutting in precision manufacturing and prototyping.