

Prototyping Interactive Systems

DES 206

Mid sem Project

Final Demo 15-03-2022



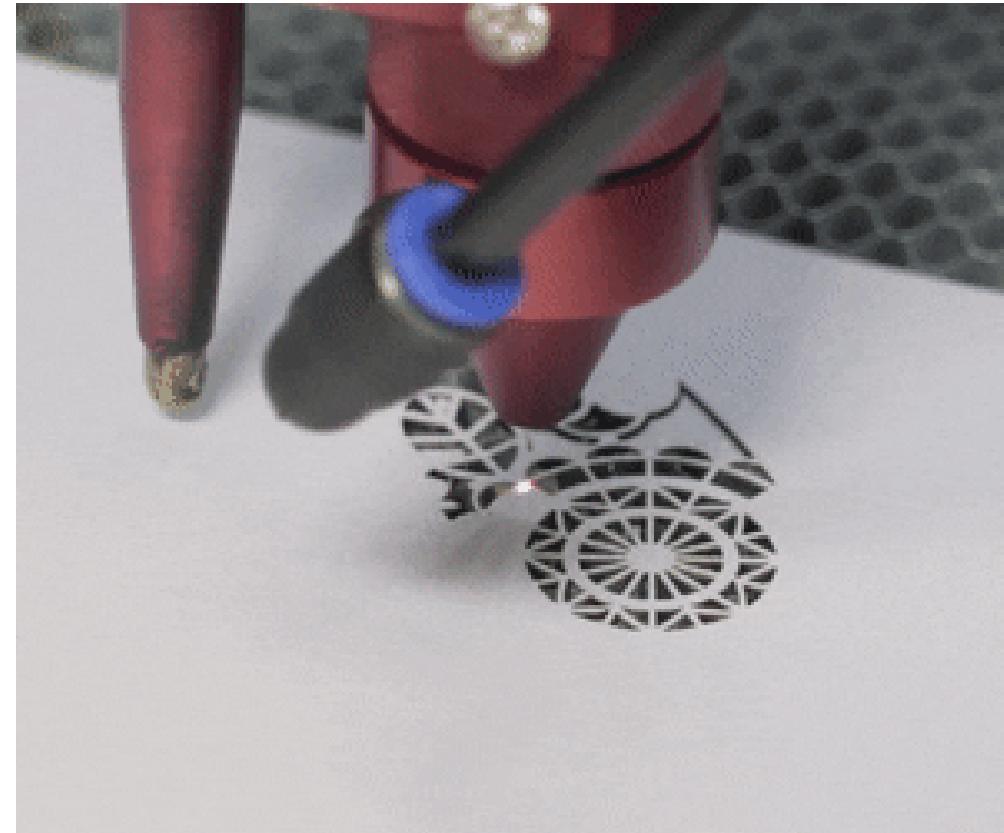
INDRAPRASTHA INSTITUTE of
INFORMATION TECHNOLOGY
DELHI

Richa Gupta

Midsem Project Instructions



- Make a **ONE** out of the following two
 - Photo frame (to scale)
 - Furniture model (small scale)
 - Art piece (any scale)
- You can use either
 - 5 mm MDF sheet
 - 3 mm Acrylic sheet
- CONSTRAINT
 - Raw material – 2 feet x 2 feet
 - Optimize your design accordingly
 - Please mention specifically if there are any engravings in your design



Mid sem Project DI Lab engagement



- First design on any software platform of your choice as a group
- Finalize and optimize the design with your team mates
- Approve the design as a group (without the approval form, workshop in-charge will not entertain cut request)
- Take it to DI Lab for cutting and assembly
- Assembly can be 3D or layer by layer style or a joint based
- REMEMBER
 - You will only get ONE chance to cut, and ONE 2x2 feet sheet of material
 - USE IT WISELY
 - PLAN AHEAD

Mid sem Project



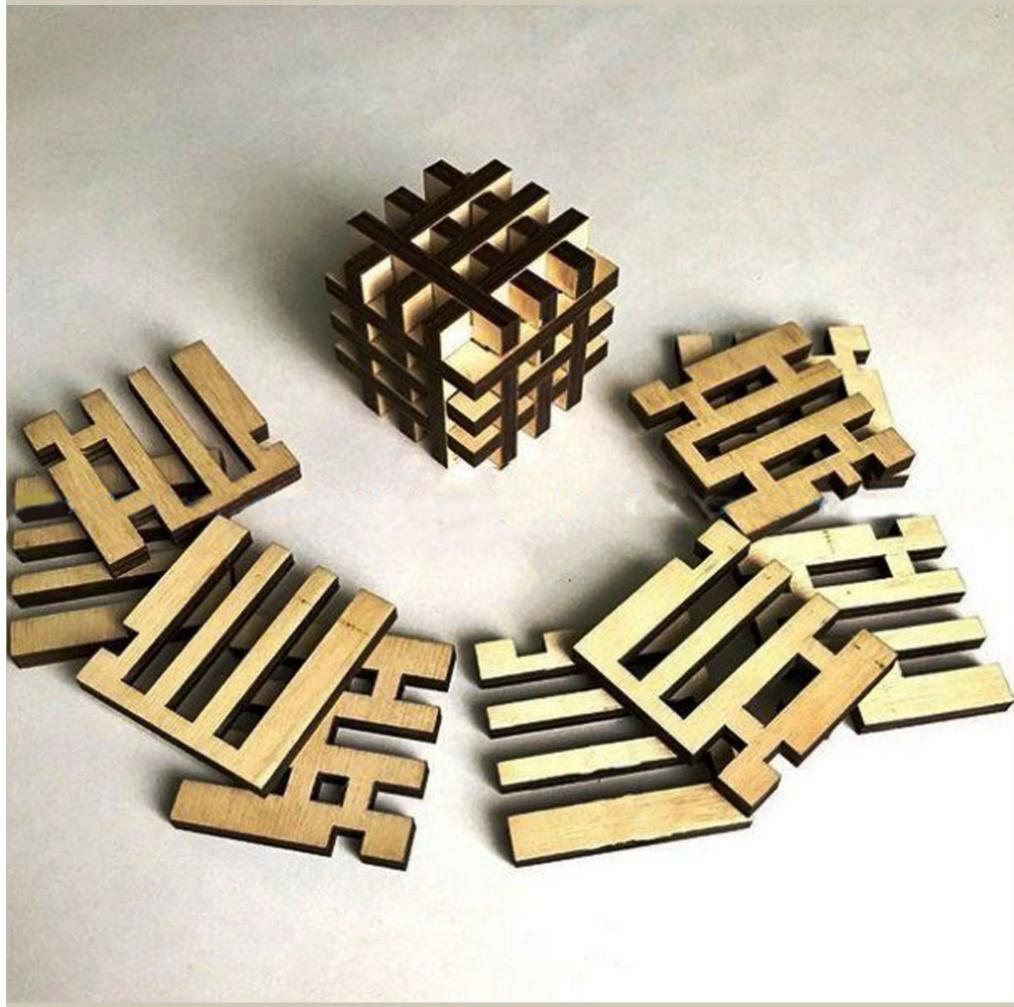
- Will be counted as Mid Sem
- Weightage – 20 %
- **Whole group will get the same marks**
- Submission will be physically as a small exhibit in RIISE on 15th March
- All members of the group have to be present for the demo
- Lab engagement slots will be rolled out and you can register for the slots

PIS Midsem Project Consent form- Group No. __

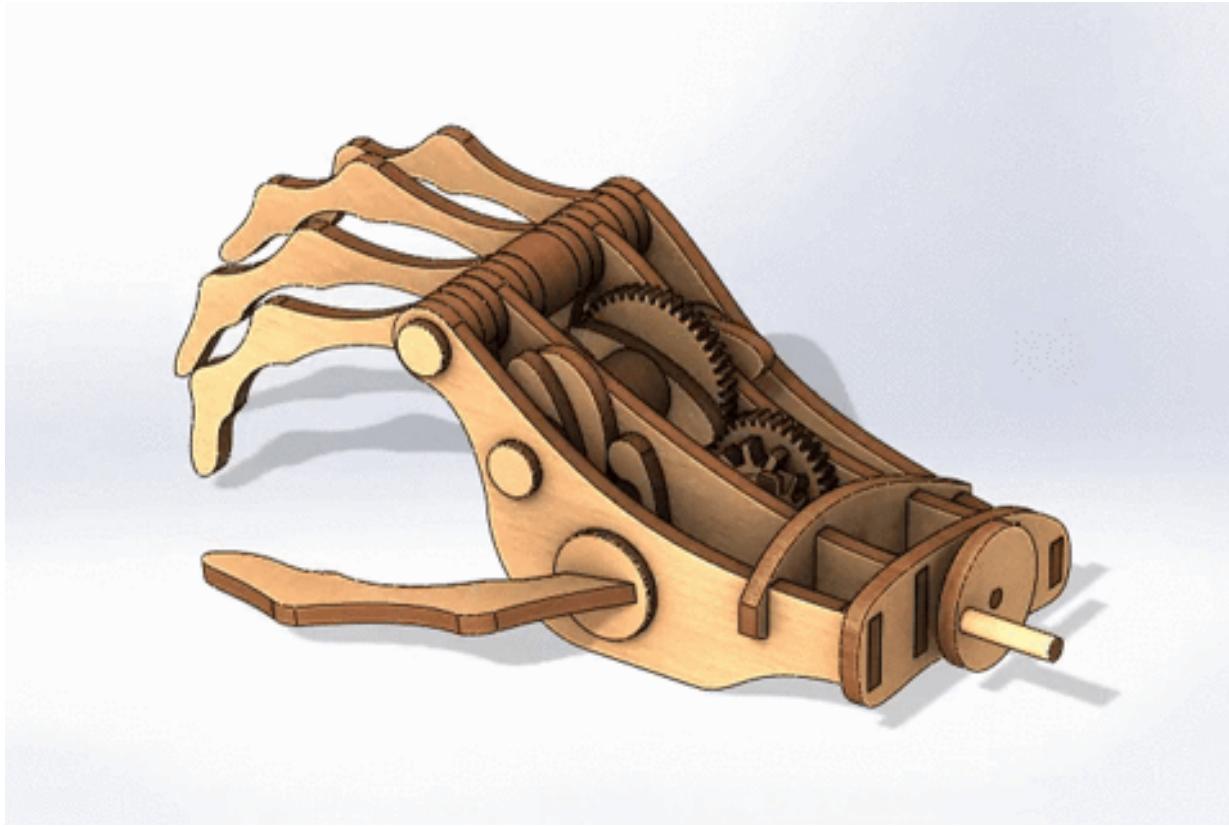


- PASTE Pictures of your design
- Names of all group mates
- And signatures (digital or on hard copy)

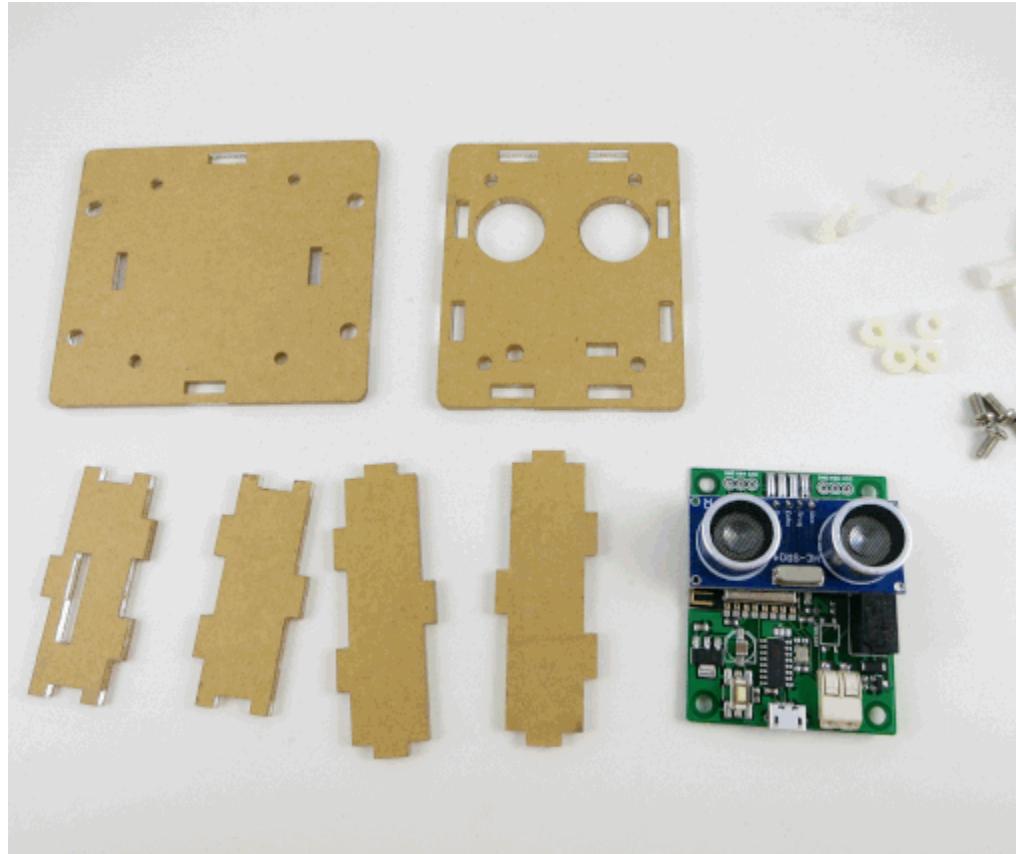
3D assembly of cut parts



3D movable assembly of cut parts



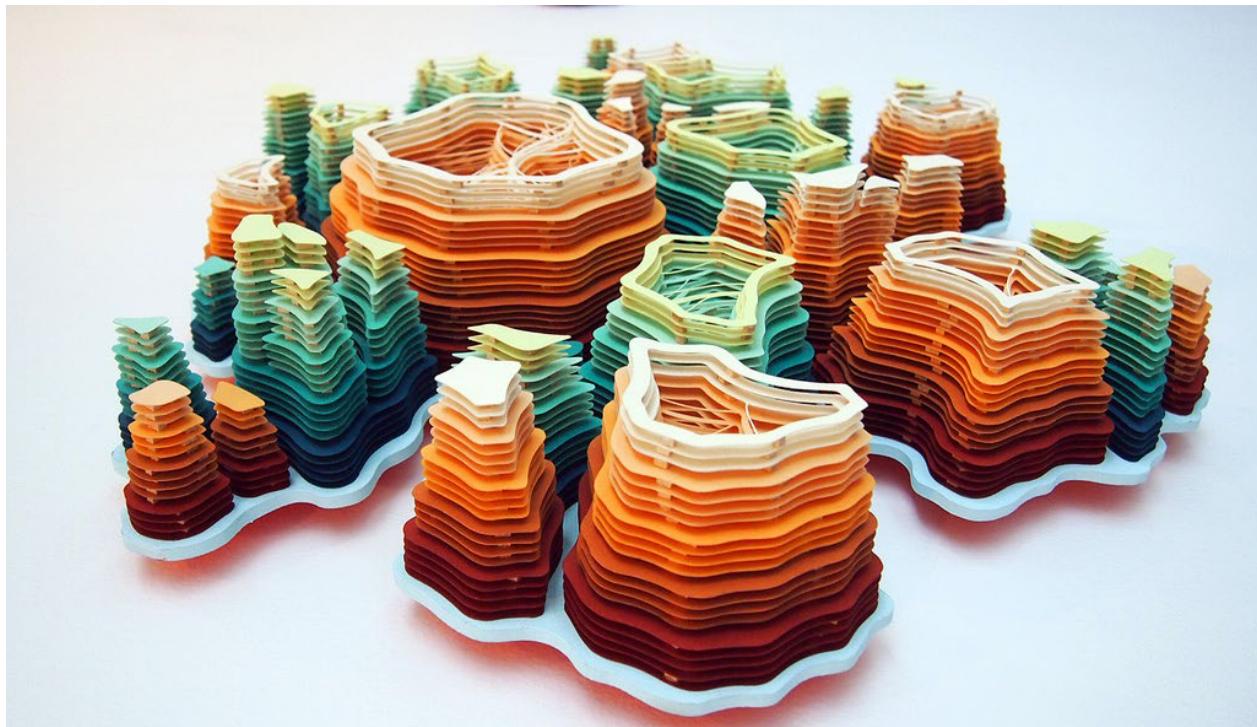
Project casing using laser cutting



Exploring Laser cut possibilities



Layered assembly of cut parts



Layered art



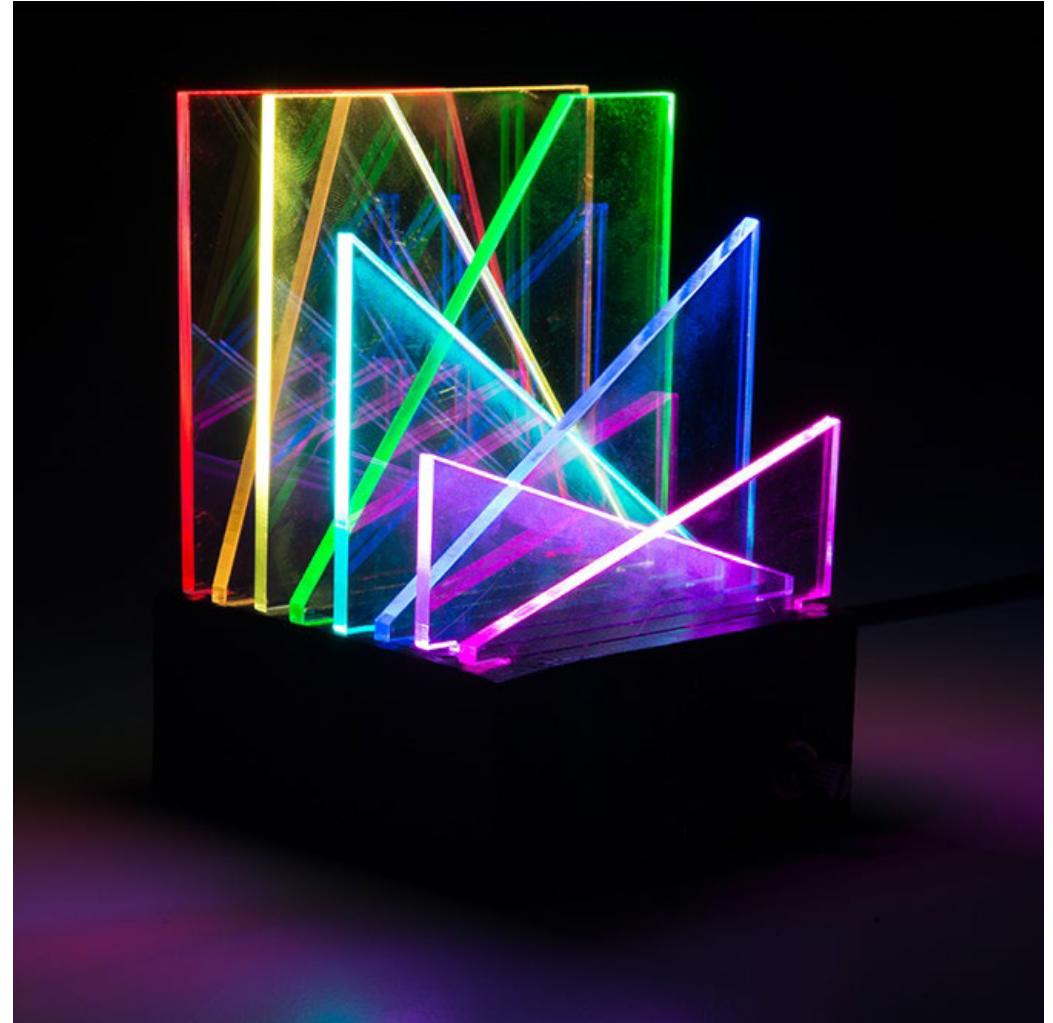
Laser cutting on different materials



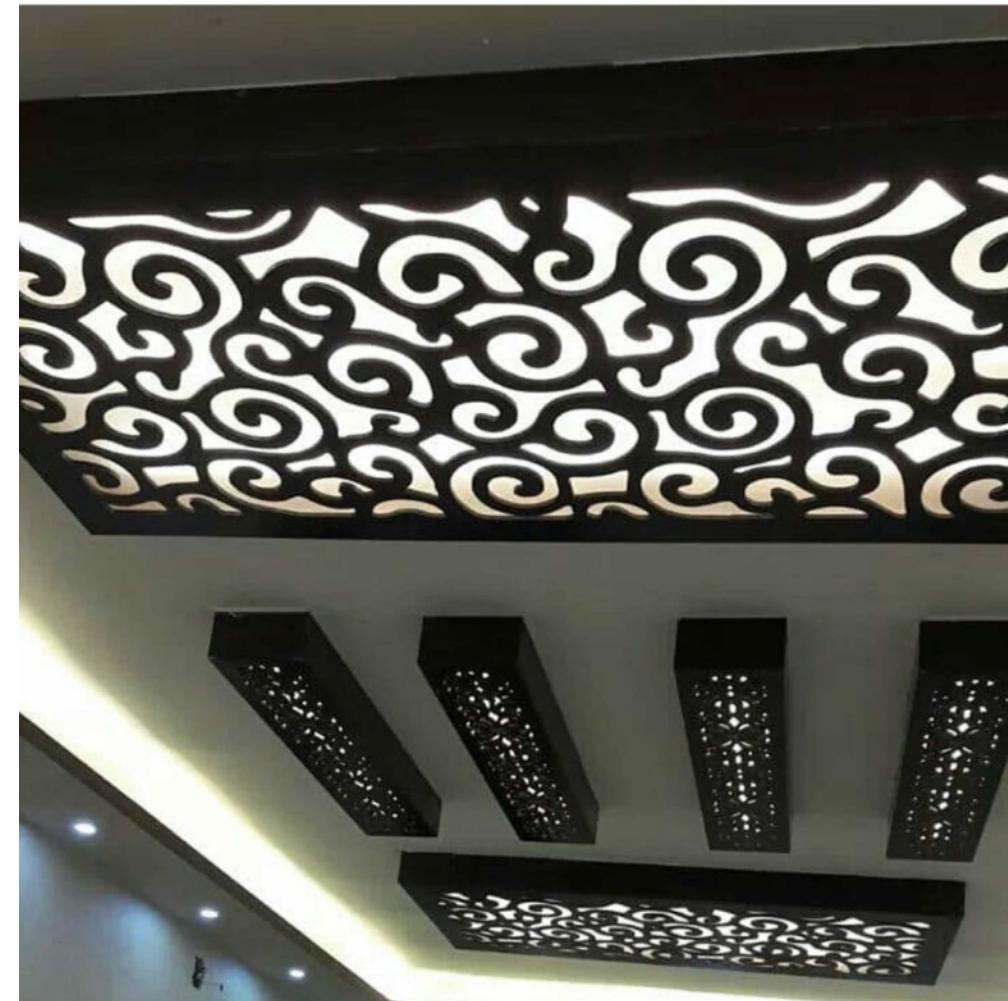
- Acrylic sheets
 - Engraving
 - Cutting
- Available in various thicknesses
- Laser strength can be adjusted



Laser cutting on acrylic



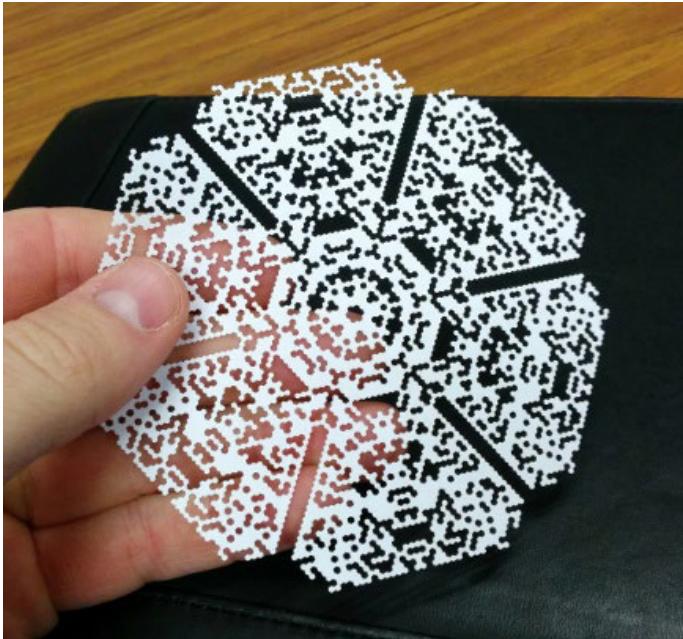
Laser cutting on acrylic



Laser cutting on different materials



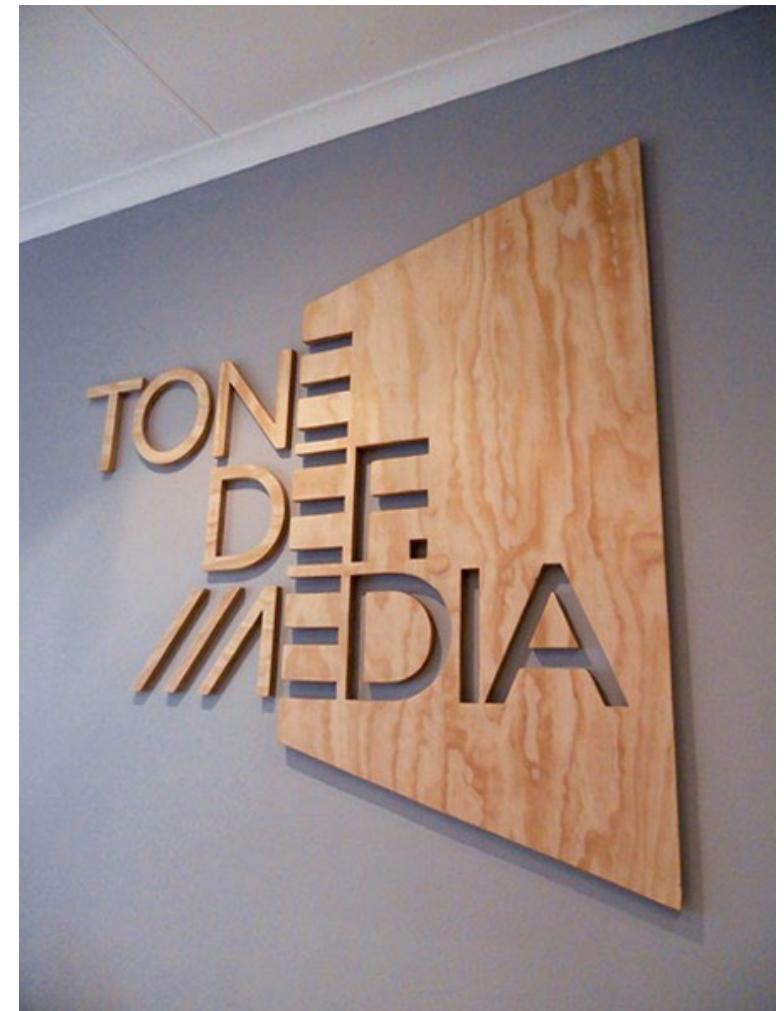
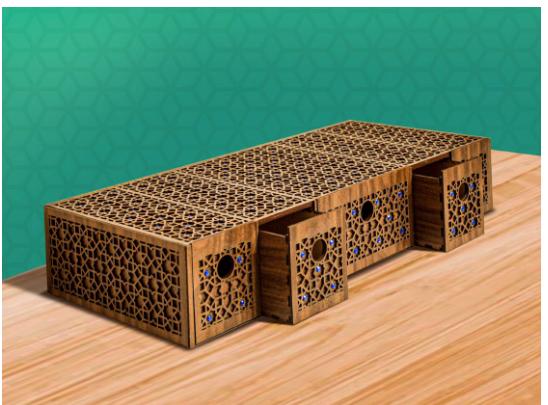
- **Paper**
 - Select thickness depending on requirement



Laser cutting on different materials



- Wood
 - Panels
 - MDF



Laser cutting process and assembly



- Faster, cheaper as compared to 3D printing
- Can be done with various materials i.e. wood, paper, acrylic, metals
- Innovative designs possible

