

The background of the slide is a dark, semi-transparent image of a technical drawing or blueprint. Overlaid on this are several drafting tools: a large metal compass, a pair of dividers, and a long ruler with markings. The text is centered over the image.

IPD 5270: Industrial Design Final Project: Laptop Stand

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Problem Statement

- How might we design a laptop stand that helps the user use the laptop comfortably while sitting/laying down on the bed?

User pain points

- When X uses laptop on the bed, the soft blanket covers the cooling vents, causing the laptop to heat up.
- When X uses laptop on the bed, they find it difficult to use the mouse.
- User X can not see the keyboard clearly when laying down on the bed.
- When X uses laptop on the bed, they have no space to keep their coffee/smartphone/tablet.
- User X does not know where to store the laptop stand after use.

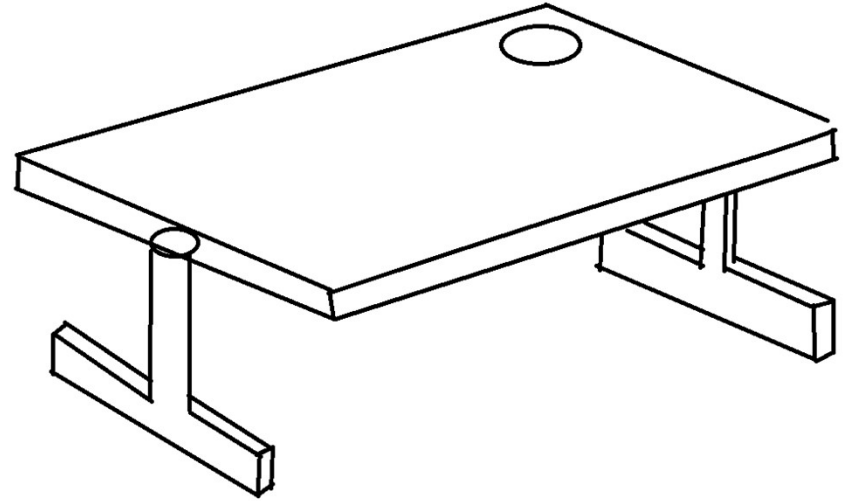
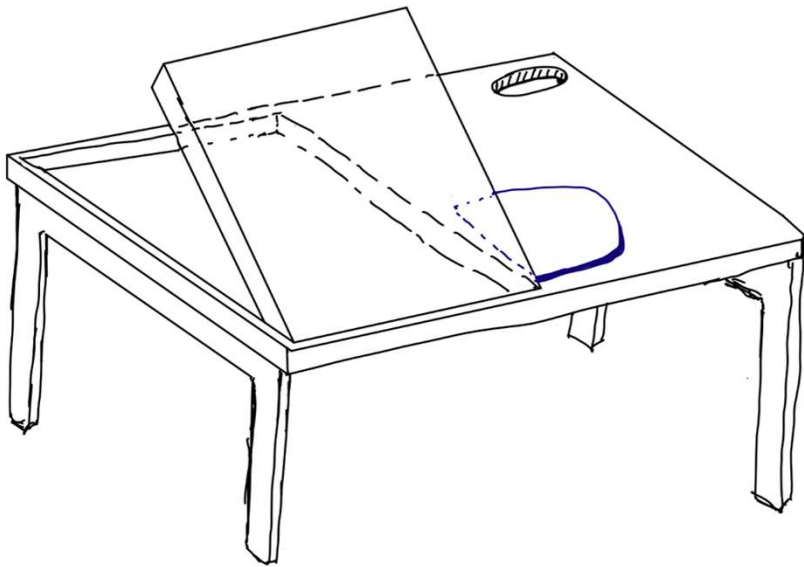
Key features

- Laptop stand should be able to balance on the bed, with space to fit user's legs.
- Laptop stand should have a flat surface such that it does not block the cooling vents.
- Laptop stand should have space to use the mouse.
- Laptop stand should have an adjustable angle, so that the user can comfortably use the keyboard at different seating/ sleeping positions.
- Laptop stand should have additional features to store drink containers, smartphones.
- Laptop stand should be light in weight for user to lift easily.
- Laptop stand should have a hook to store it on the wall.

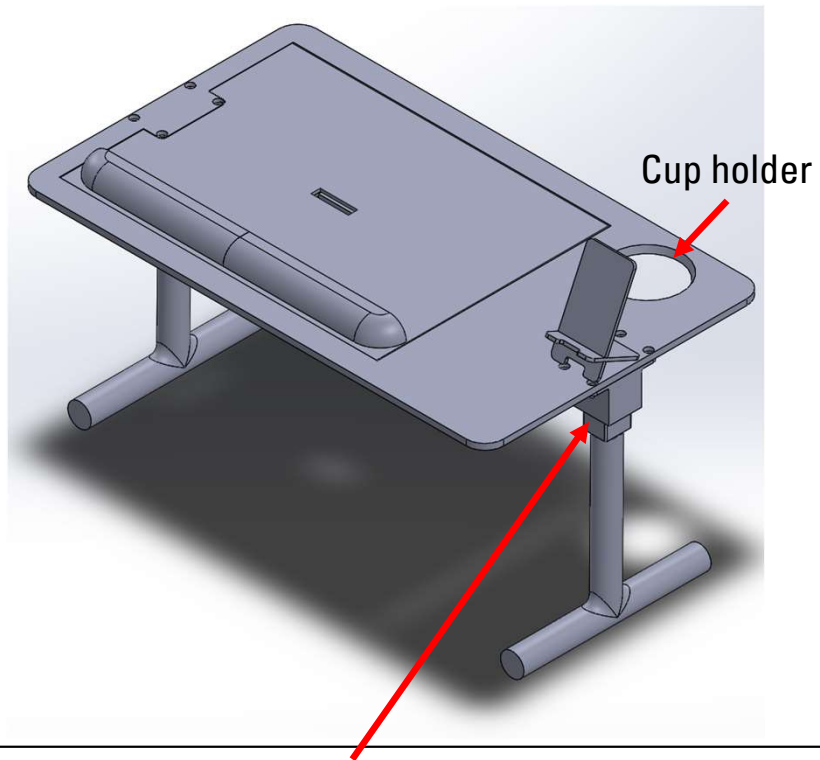
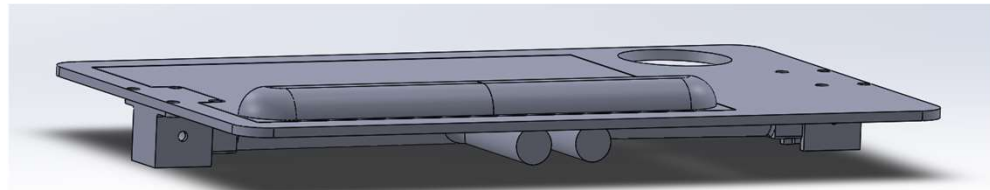
Visual Design of Existing Products



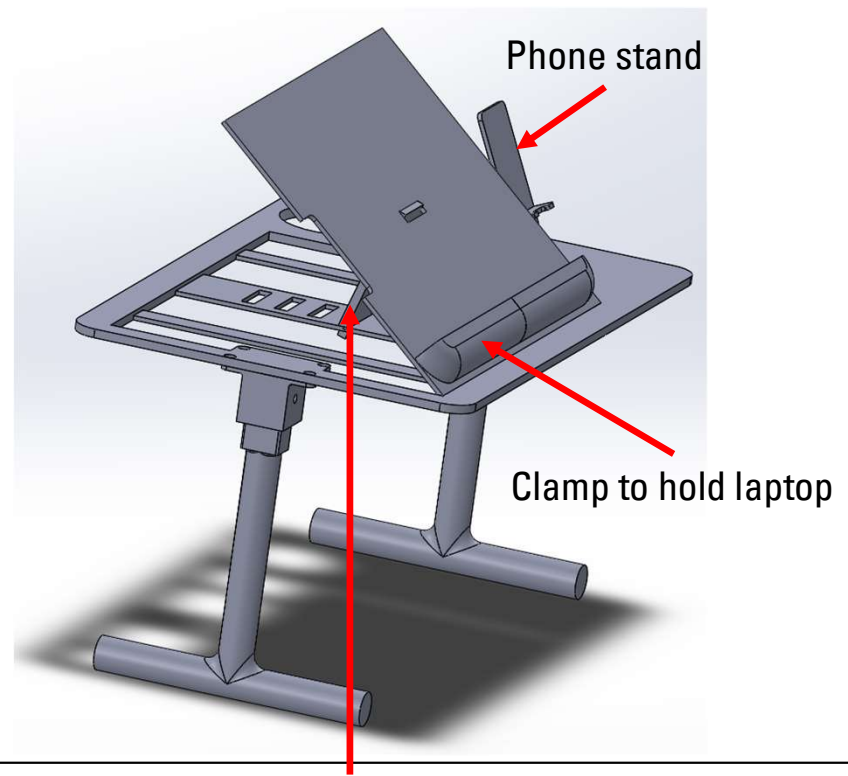
Concept sketch



CAD Model



Hinge to help folding the legs when not in use



Adjustable angle of top surface

Fabricated prototype



Materials used:

- Top surfaces- Acrylic
- Hinges- PLA
- Legs- Wood

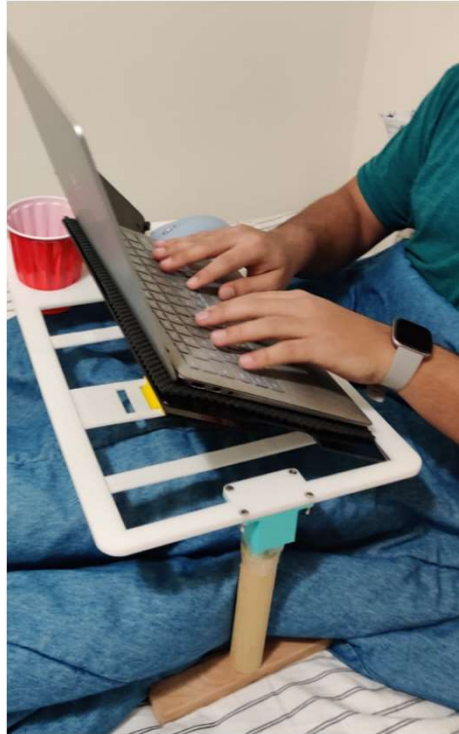
Ideal materials:

- Top surfaces- Wood/aluminum
- Hinges- Plastic (Injection molding)
- Legs- Plastic (Injection molding)

Prototype in use



General use



Incline to make typing easier



Storage after use

Rendering



Brand Language: Microsoft

