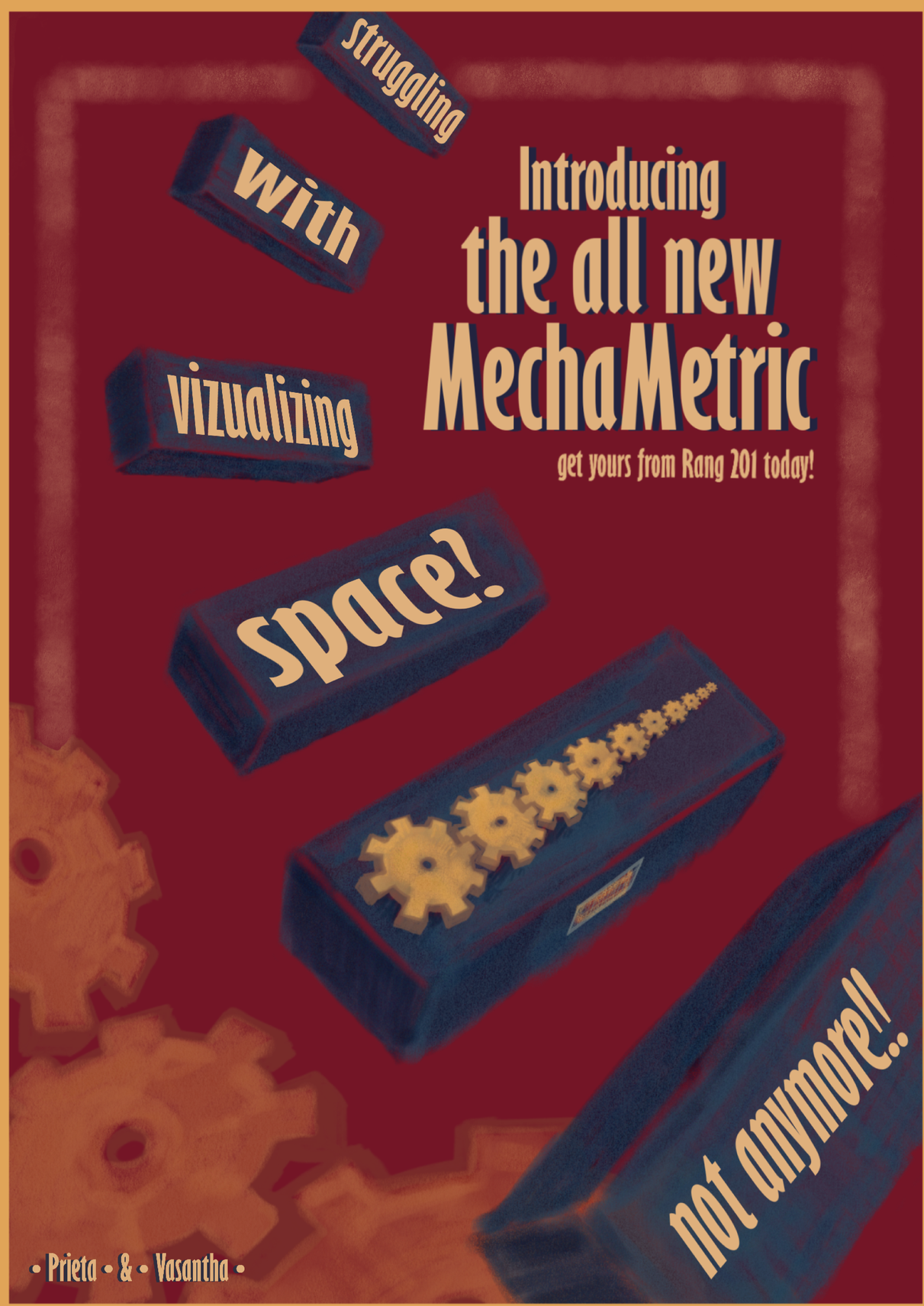
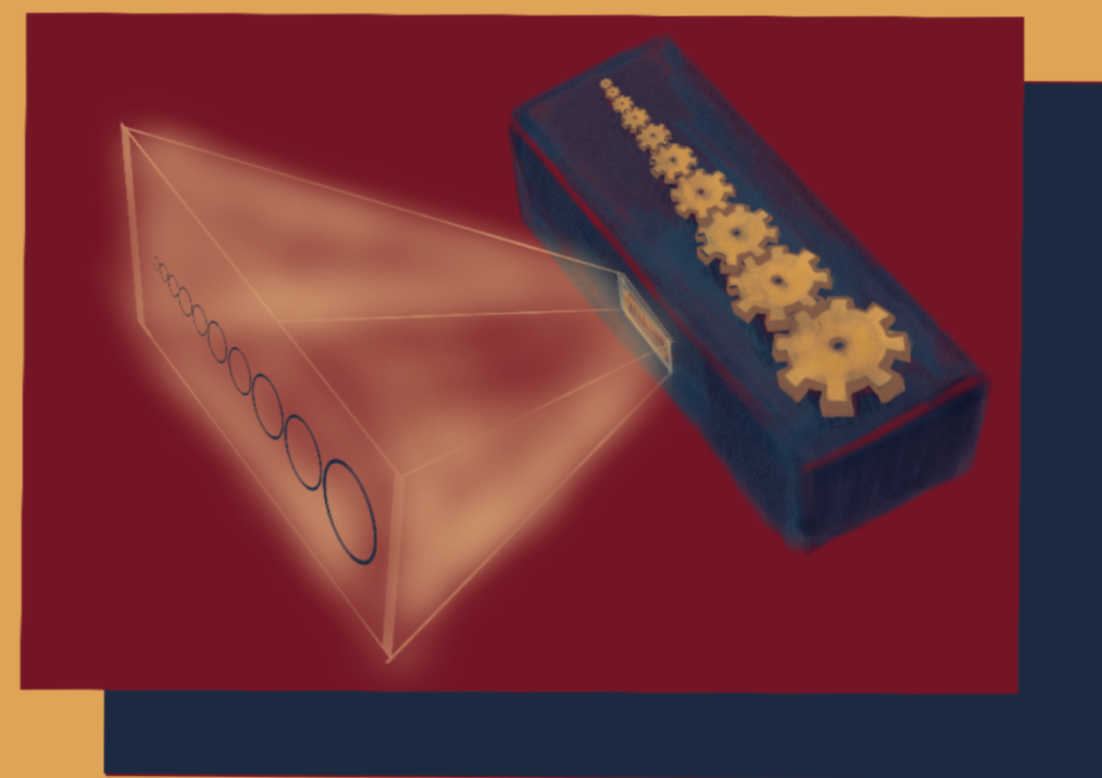
The Calculator As A New Interface





Why does this (re)design matter?

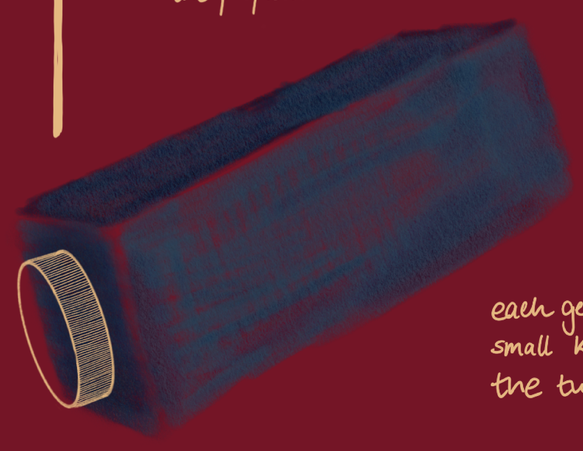
1. It can be a valuable educational tool in
   a) making the instrument itself, and in
   b) using the instrument to visualize in spaces
2. It can exist as a digetic prototype
3. It's an echo of all the smart and trusty analog mechanisms that preceeded the current graphing calculator.

Every gear is directly proportional to the first one.

If the first gear has a total of four teeth, every other gear will be a multiple of four.

materials: wood

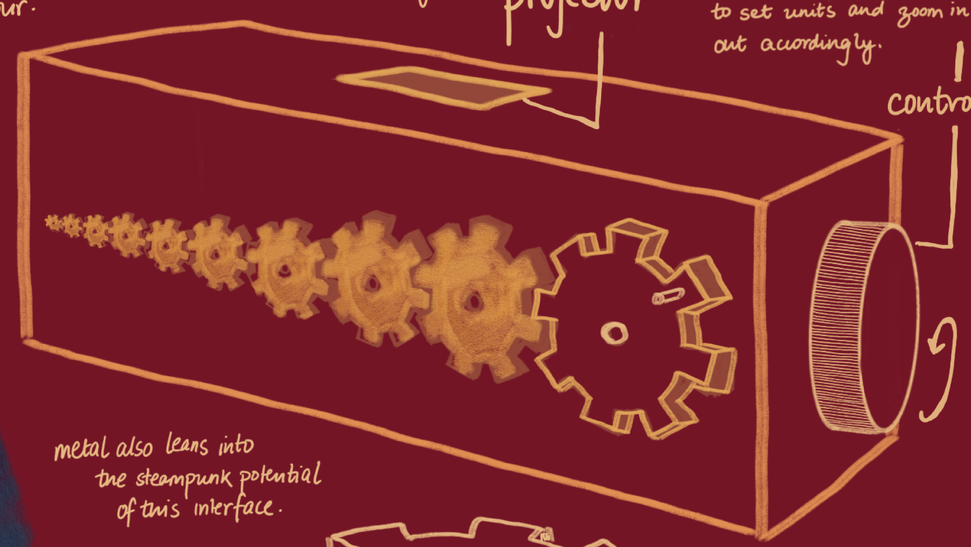
wood is an easy material to work with in terms of DIY. For a more durable product, however, metal is the proposed material.



the speculative factor of this interface, the projector would enable visualization of space in different scales.

It could also mean the possibility of re-organizing the drawn areas for better comparison and understanding.

projector



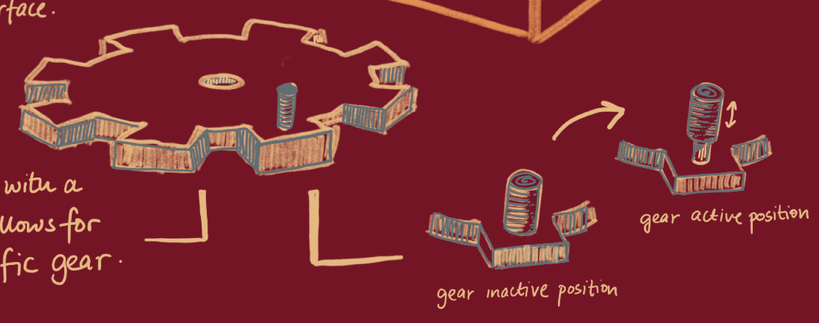
metal also leans into the steampunk potential of this interface.

this knob when pressed functions as a button that changes the aspect ratio of the projection.

turning the knob will affect the scale of the projection, allowing one to set units and zoom in and out accordingly.

controller

each gear is equipped with a small knob, which allows for the turning of specific gear.



The MechaMetric is used by turning any of the 10 gears on the top of the box. One must make sure that the knob of the gear that is relavent to their calculation is in it's active position. The projector will then showcase the calculations in the scale that is pre-set by the user.

Rotation and cyclical movement was the main concepts taken forward from research done on the calculator as an interface. Many pre-cursors to the current calculator featured movement as an active aspect that reflected the actual calculation being done. [see Curta]

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