

ABOUT THINKERING LAB:

Thinkering lab is a small-scale prototyping facility available at KLE Technological University, which caters to the multi-disciplinary prototyping aspirations of first-year engineering students in the course Engineering Exploration. Thinkering lab was conceived by the Centre for Engineering Education Research (CEER) in March 2017. It is located in CEER, R K Kulkarni, Lecture Hall complex. The facility is 4500 sqft.

The facility has almost all varieties of manual tools and handheld machine tools needed for prototyping purposes. The lab is equipped with different kinds of operations that can be performed on various soft materials like wood, acrylic, foam, aluminum, etc. The facility hosts a low-cost laser acrylic cutting solution, needed for the project requirements of the students. Since its inception, more than 850 first-year engineering projects are produced out of the Thinkering lab.

Along with the various handheld and power machine tools, Thinkering lab also has a storage facility which issues consumables free of cost to students based on the requirement. The store is made available with the intention that the time spent by students in procuring the consumables otherwise can be used wisely to enhance the creativity in students' projects.

While one part of Thinkering lab comprises the tools and equipment, its value is enriched by a peer-mentoring program that operates here. The peer-mentoring program is called **MITRA - Mentor In Thinkering Lab**. Students of higher semester students come with their disciplinary knowledge to help the first-year engineer Exploration students in their course project physical implementation phase. MITRA provides in-time support to Exploration students in the Thinkering lab after college hours. The role of student Mentor's is to observe the safety and security of students and tools, fabrication Help, tools support, and debugging.

Machines and Consumables available in Thinkering lab

List of Machines:

1. Bench Lathe
2. Bench Milling Machine
3. Bench Multipurpose machine
4. Laser Acrylic cutting and engraving machine
5. Soldering stations
6. Glue gun 250 Watt
7. Vernier calliper 150mm (Digital)
8. Cordless Drilling Machine
9. Power Drilling Machine
10. Bench Grinding Machine
11. Bench Pillar Drilling Machine
12. Bench Sander Machine
13. Scroll Saw Machine
14. Handheld Multipurpose Tool + kit (12 pieces)
15. Jigsaw Machine
16. Handheld sanding machine
17. Hot Air Gun
18. Aluminum cutter
19. Sheet metal bending shearing rolling machine

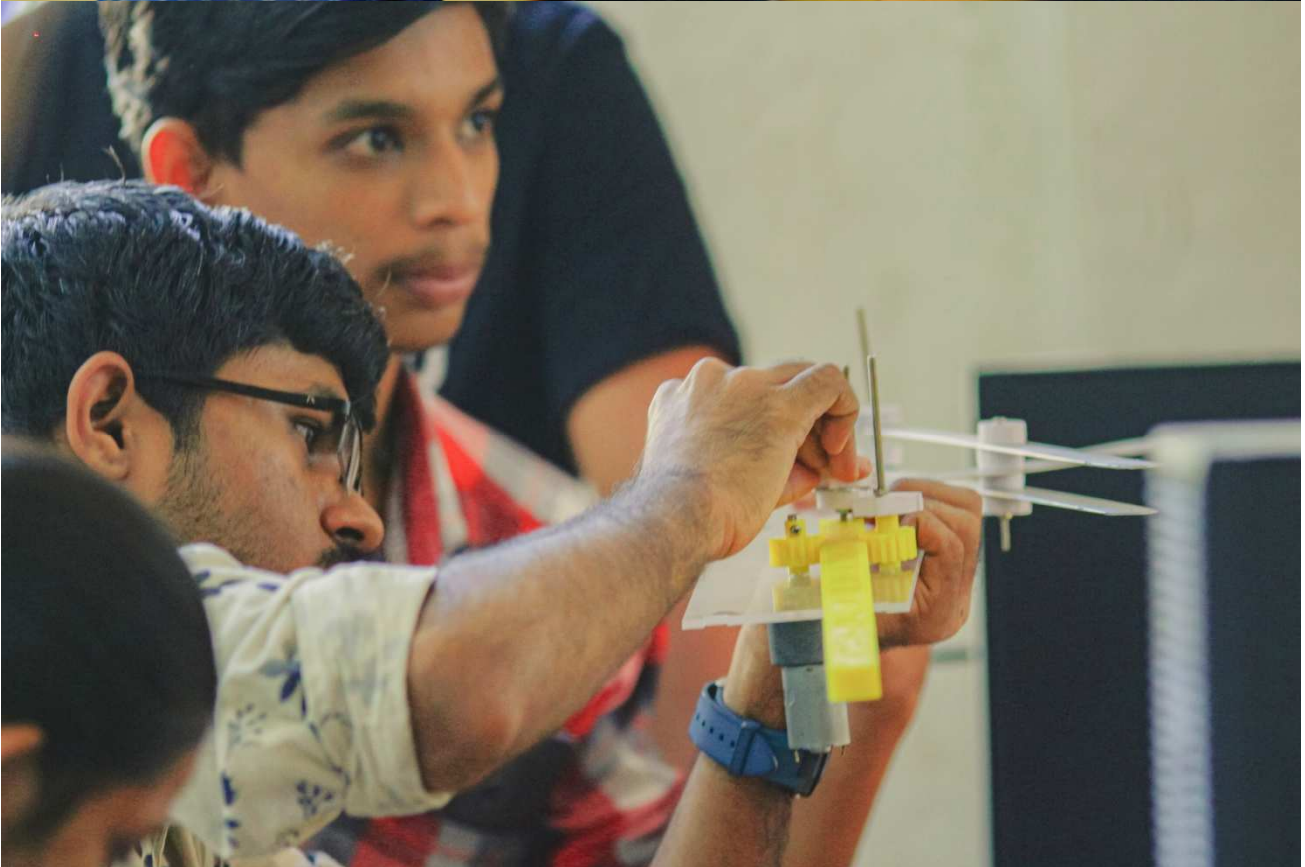
STUDENTS IN ACTION IN THINKERING LAB:















MITRAS IN THINKERING LAB



