An Introduction To Engineering Graphics
(MEC 103)

interior service label

diskette drive bracket
hard-drive bracket
externally accessible-drive bracket

chassis intrusion switch

front panel

cable retainer

memory riser board
retention bracket
(if needed)

AGP card
brace

speaker

microprocessor
airflow shroud

expansion-card
cooling fan

power supply

I/O panel connectors

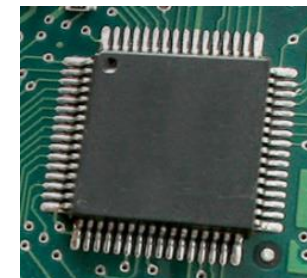system board

expansion-card slots
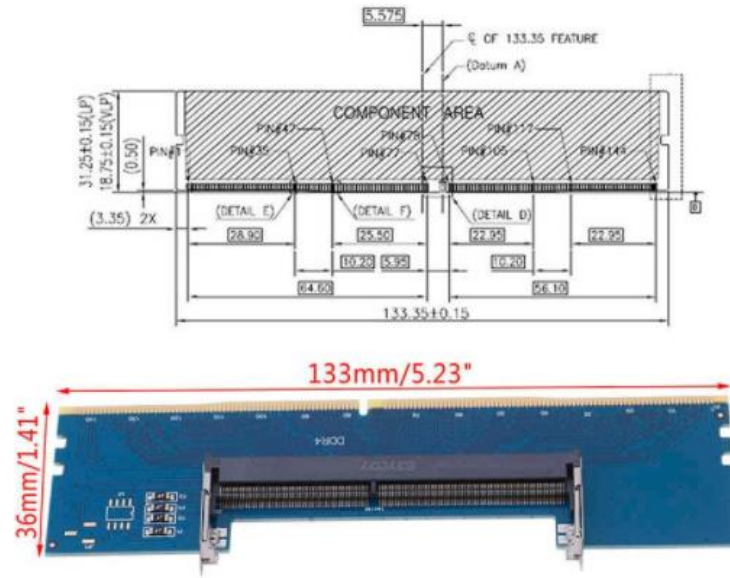
AC power receptacle

power supply airflow vents

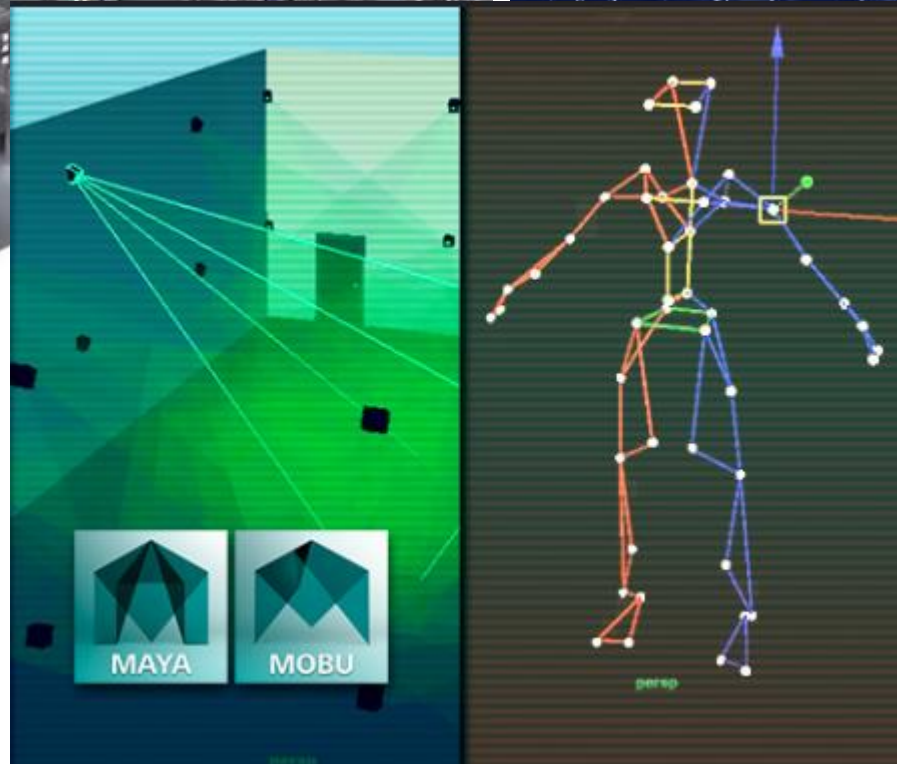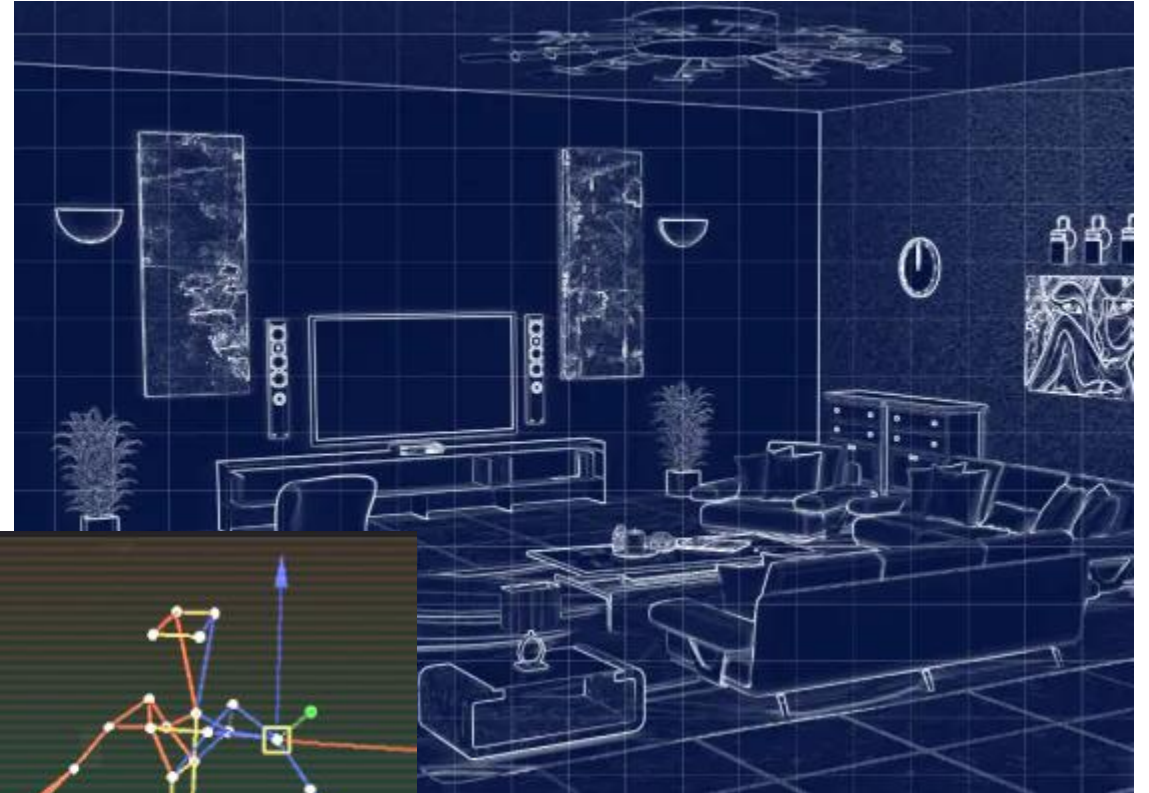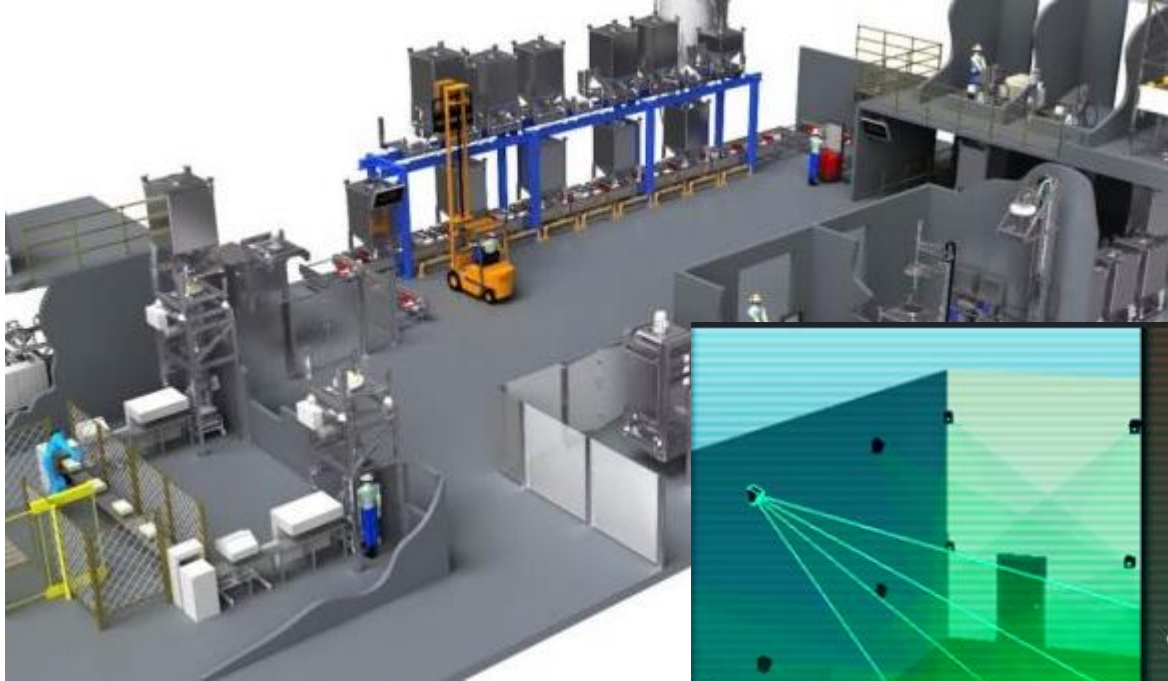- **What is Engineering Drawing/Graphics?**

  Subject deals with drawing anything using technical rules.

- **Why we need this subject?**
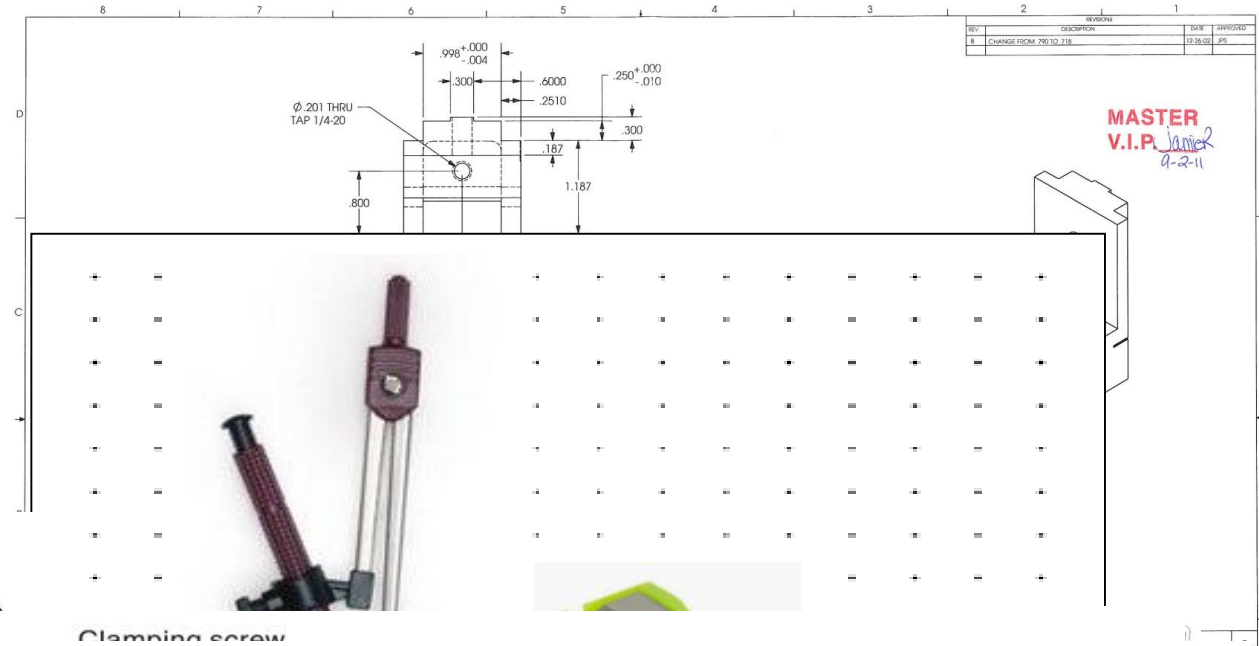- *Software Field*
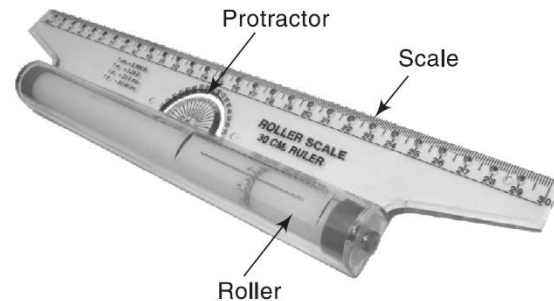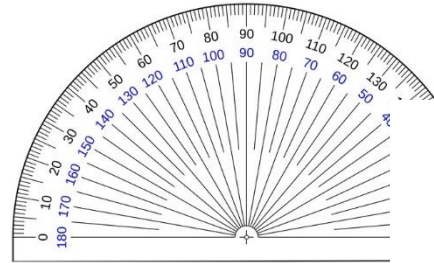- *Hardware Field*

- *Games / Animation*

- **Engineering Graphics is known as graphical language of engineers?**

  ➢ Communication Medium.

  ➢ Required Dimensional Accuracy.

  ➢ Better way to express our thoughts.

- **Instruments required in this subject:**

  ➢ Drawing Sheets.
  ➢ Drawing Pencil.
  ➢ Eraser.
  ➢ Sharpener.
  ➢ Scale.
  ➢ Compass.
  ➢ Protractor.

- **BIS Standards:**

  Indian Standards (IS) for drawing sheets and drawing boards as recommended by the Bureau of Indian Standards (BIS) are shown in Table 1.1.

Table 1.1   Recommended Sizes of Drawing Sheets and Drawing Boards

Drawing Sheet (IS 10711:2001)		Drawing Board (IS 1444:1989)	
Designation	Size (mm) Length × Width	Designation	Size (mm) Length × Width
A0	1189 × 841	D0	1270 × 920
A1	841 × 594	D1	920 × 650
A2	594 × 420	D2	650 × 470
A3	420 × 297	D3	500 × 350
A4	297 × 210		

- *Grades of Drawing Pencil:*

  9H, 8H, 7H, 6H, 5H, 4H, 3H, 2H, H, F, HB, B, 2B, 3B, 4B, 5B, 6B, 7B

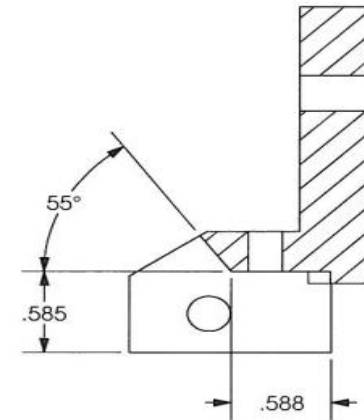Hardest   *Softest*

- **Types of Lines:**

➢ *Lines are like the alphabet of a drawing language.*
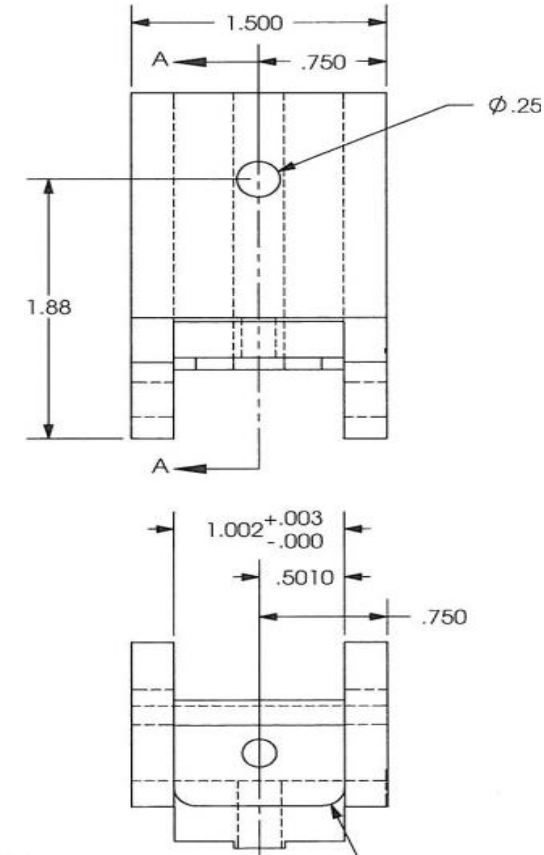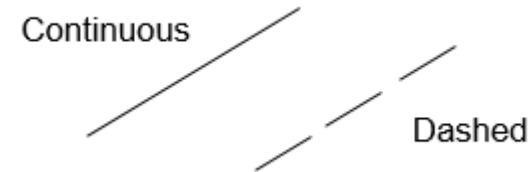➢ *Each line in a drawing is used in a specific sense.*

➢ *Lines differ from each other in two respects:*
a) *Their thickness or weight*

   eg:- Thick, medium & thin.
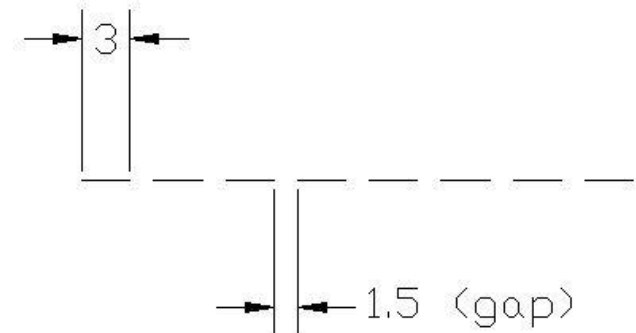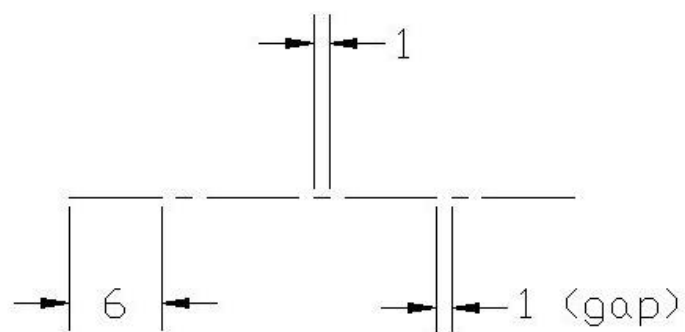
b) *Their Shape or construction depending upon their conventional use.*

Sr.	Line Type	Representation	Width	Applications
1.	Continuous Thick Line	————————	Thick	Visible Outlines Object Lines
2.	Continuous Thin Line	————————	Thin	Construction lines Projection Lines Dimension Lines Extension Lines Section Lines Leader Lines
3.	Dashed Medium Line	– – – – – – – –	Medium	Hidden lines
4.	Chain Thin	— - — - — - —	Thin	Center lines Pitch circle dia
5.	Chain Thin, Thick at ends	▬ - — - — - ▬	Thin	Cutting Plane lines
6.	Long Dashed Double Dotted (Phantom)	— - - — - - —	Thin	Locus Lines

1

6   1 (gap)

3

1.5 (gap)

Thank You