




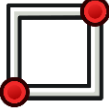



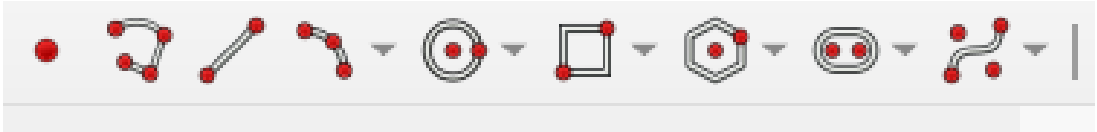


## **FreeCAD Exercises**

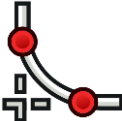


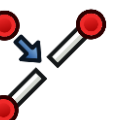

Drawing - Create

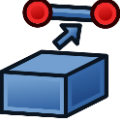



	Create point
	Create polyline
	Create line
	Create arc by 3 points
	Create circle by center

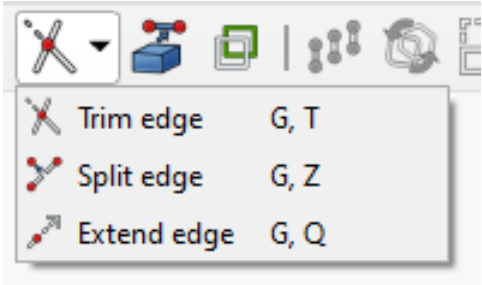
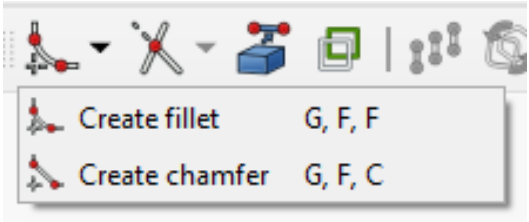
	Create Rectangle
	Create regular polygon
	Create slot
	Create B-spline








Drawing - Modify





	Create fillet
	Create chamfer
	Trim edge
	Split edge
	Extend edge

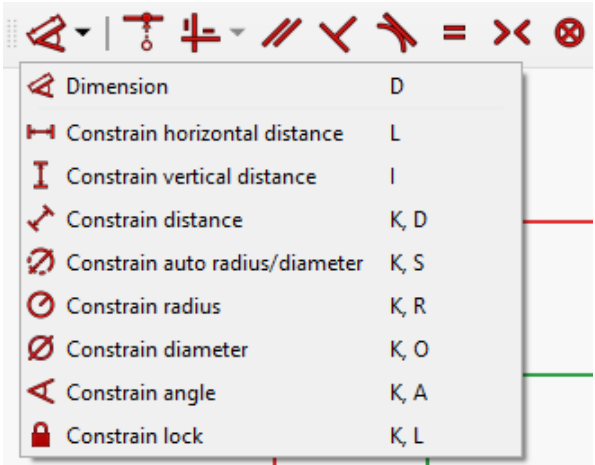
	Create external geometry
	Toggle construction geometry
	Toggle construction geometry
	View sketch



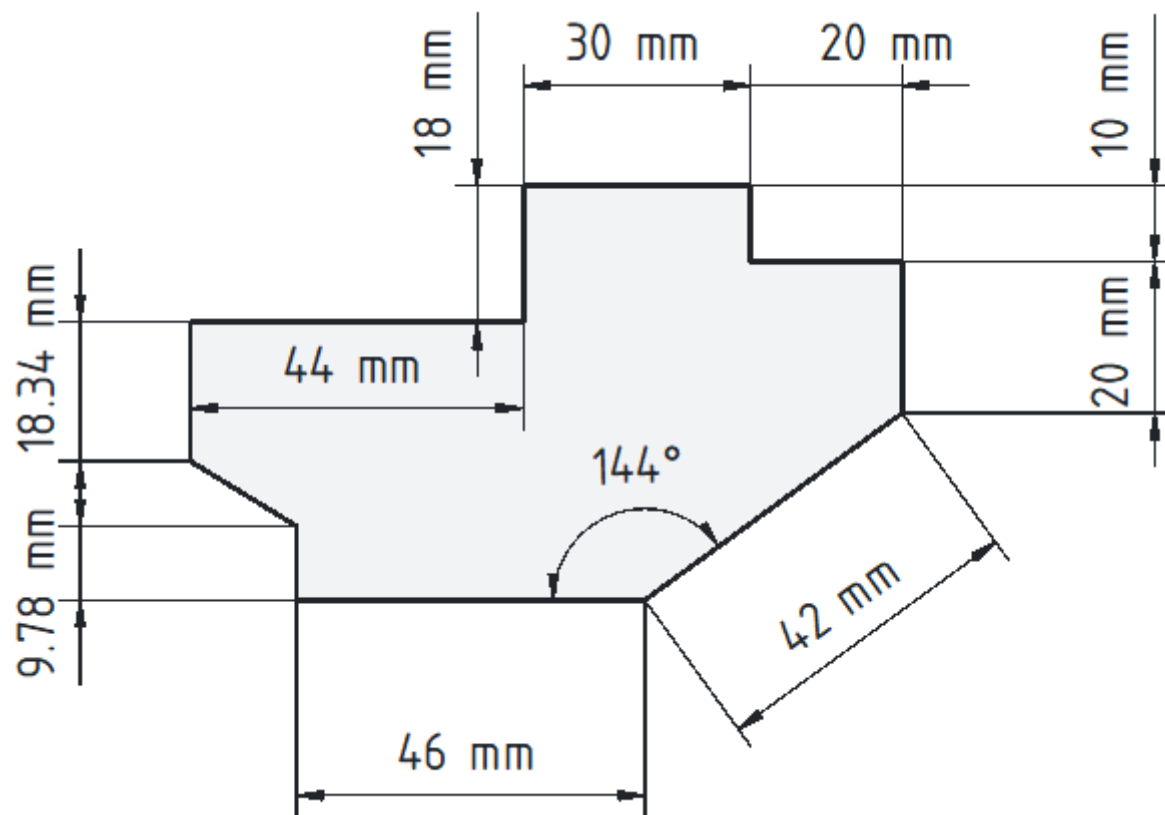
# Constraints

	Constrain Symmetry
	Constrain Equal
	Constrain Horizontal Distance
	Constrain Vertical Distance
	Constrain Constant Distance

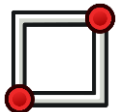
	Constrain Radius
	Constrain Diameter
	Constrain Angle
	Constrain Coincident



## 2D Drawing Exercise: Draw and constrain drawing



## Draw a Simple Mounting Plate



Rectangle





Create Circle by Center

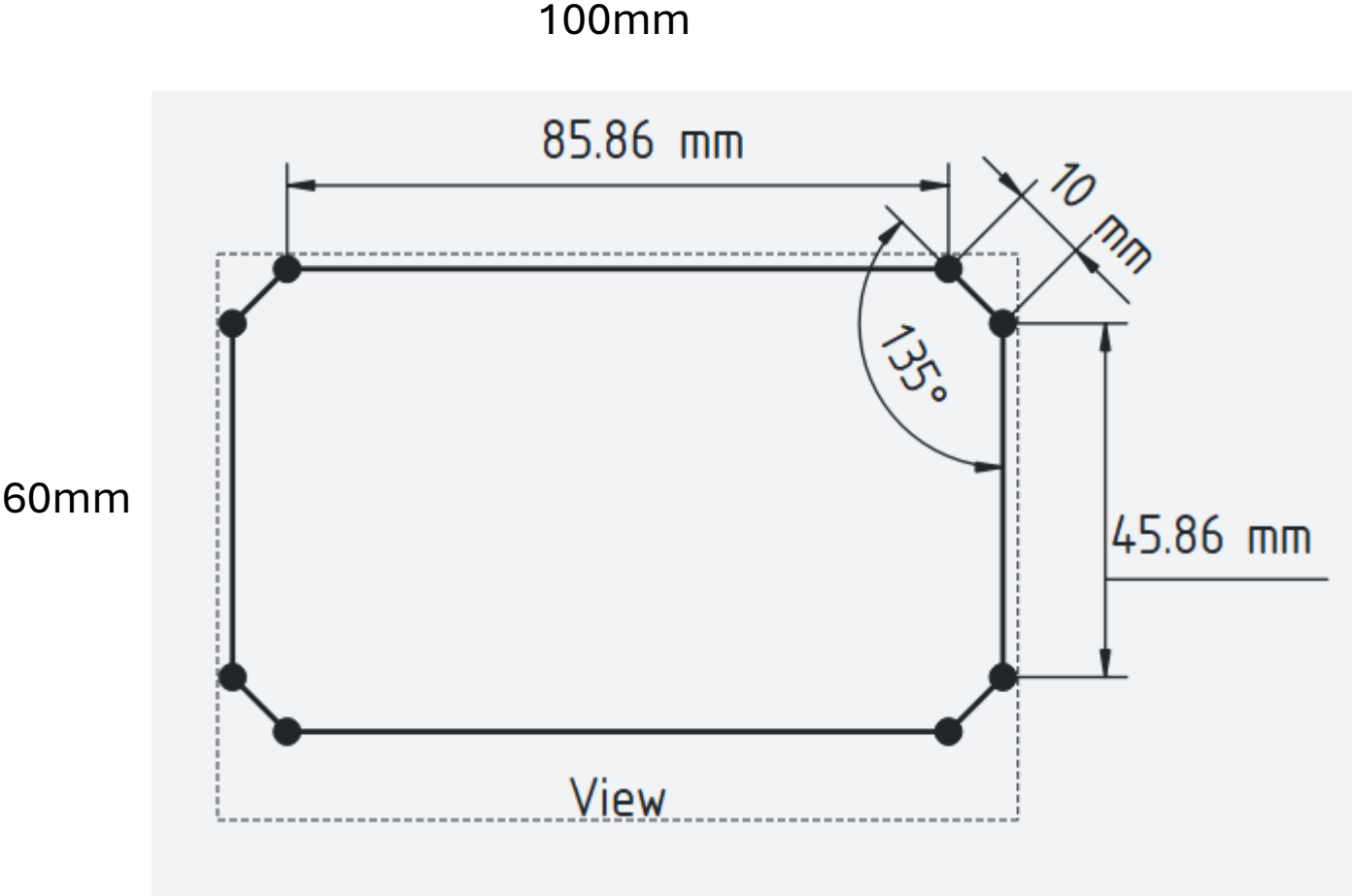
60mm

100mm

○  $\phi 3\text{mm}$


Draw a Simple Mounting Plate – chamfer

	Create Chamfer
	Trim edge

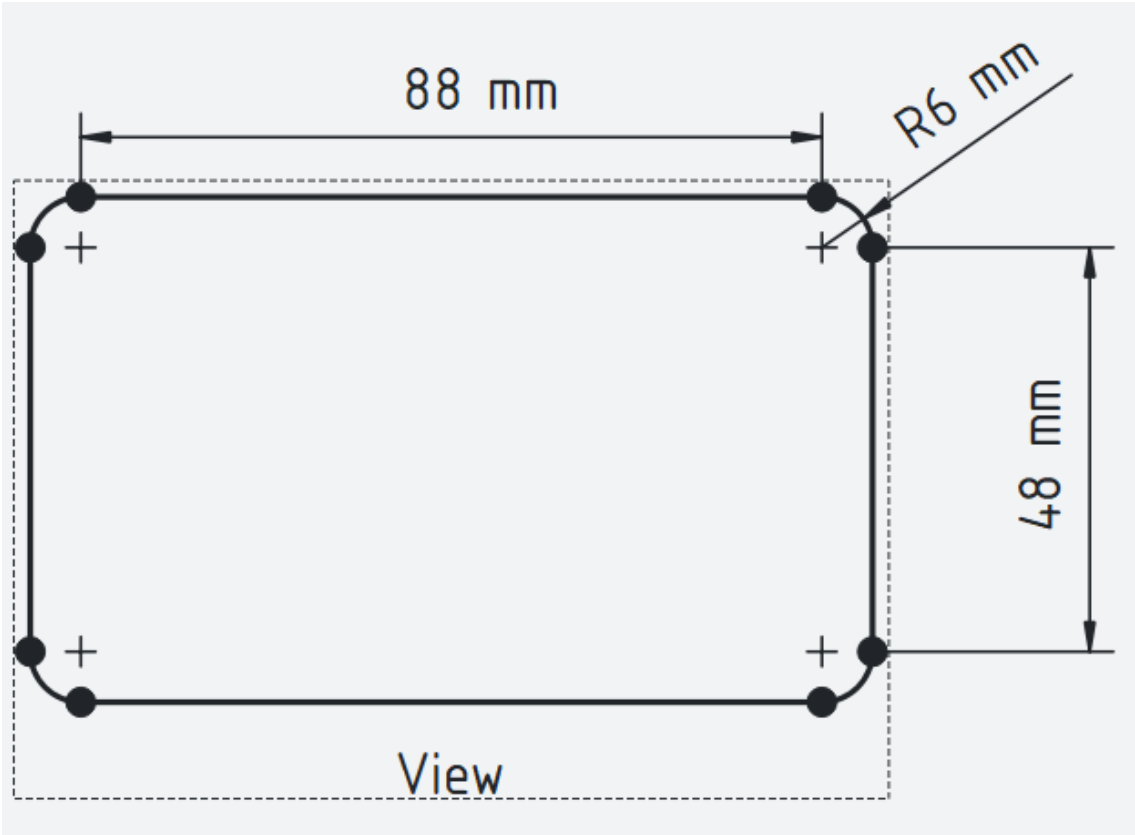


Draw a Simple Mounting Plate – fillet

100mm

	Create Fillet
	Trim edge



60mm

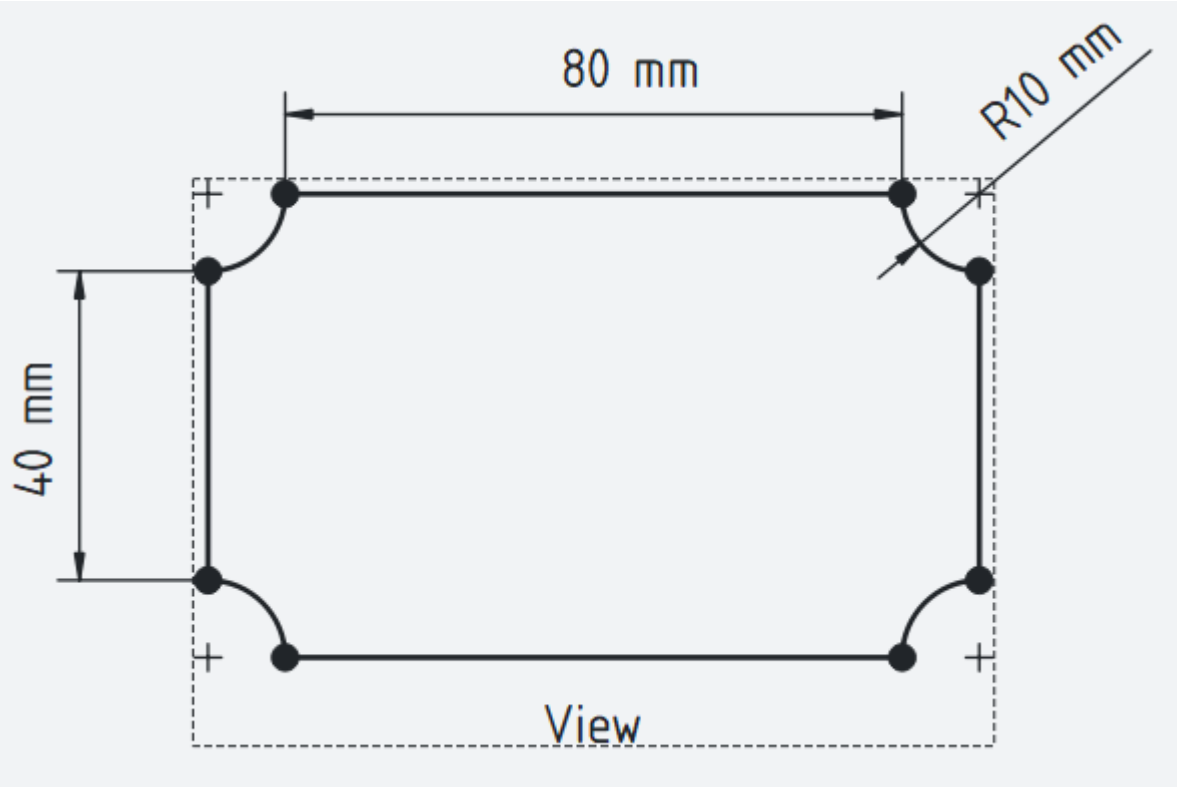




Dra a Simple Mounting Plate – arc

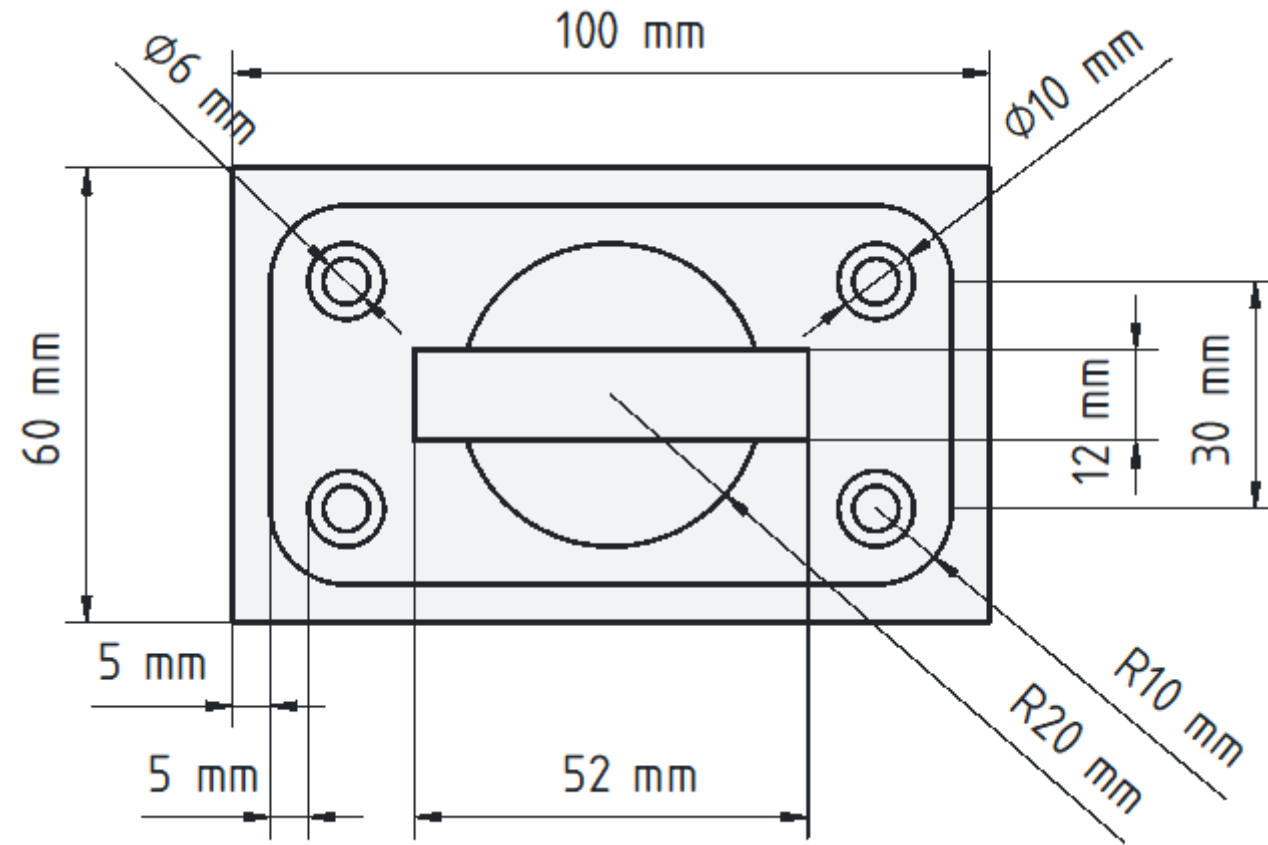
100mm

	Create Arc by Center
	Trim edge

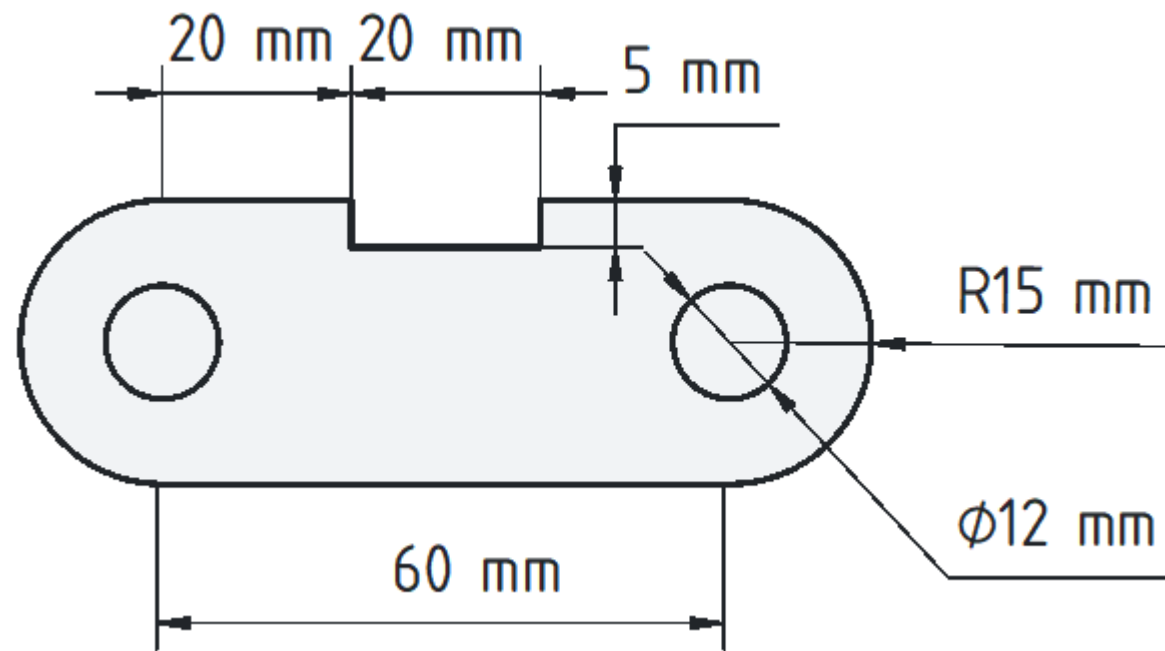


60mm

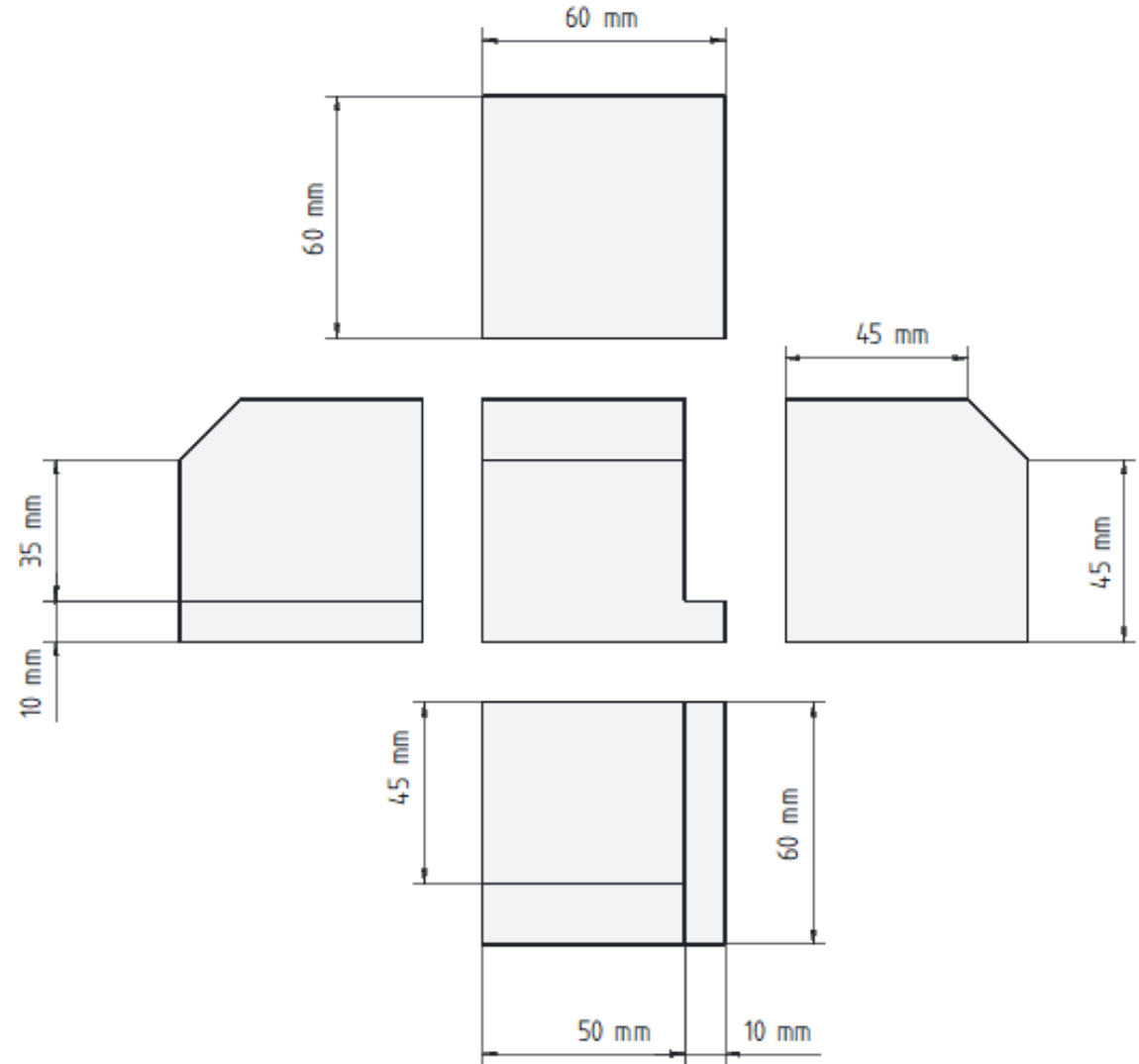
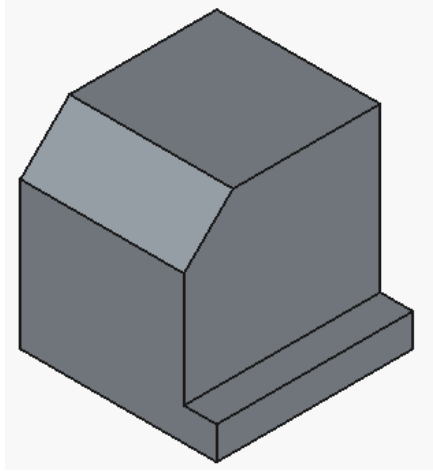
## 2D Drawing Exercise: Draw and constrain



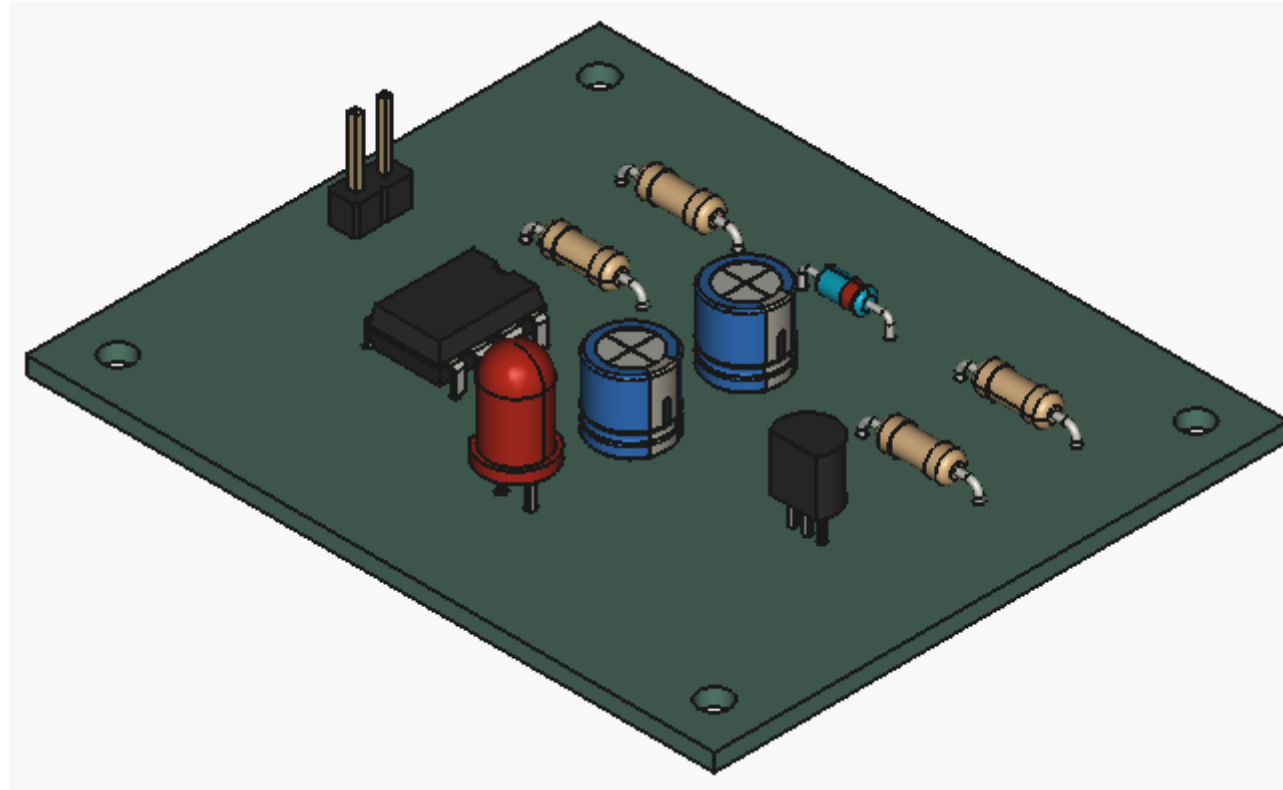
## 2D Drawing Exercise: Draw and constrain



## 3D Drawing Exercise: Draw Model



### 3D Drawing Exercise: Draw Enclosure for PCB



## FreeCAD Enclosure and Lid

