EE-100 Engineering Laboratory Module2: CAD

Dr. –Ing. Ahmad Kamal Nasir

Office Hours: Room 9-245A

Tuesday   (1000-1100)

Thursday (1000-1100)
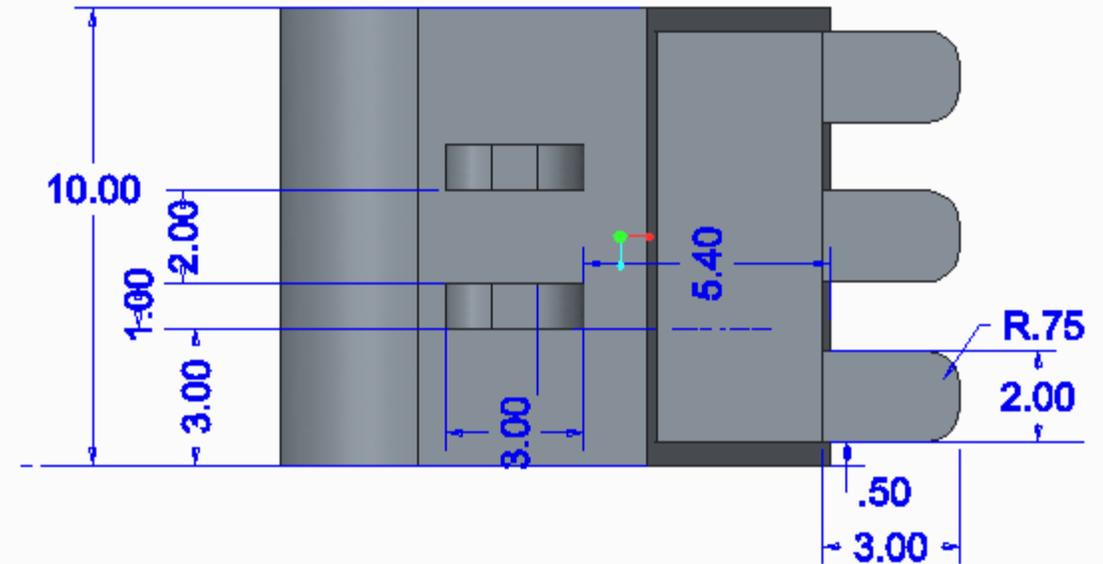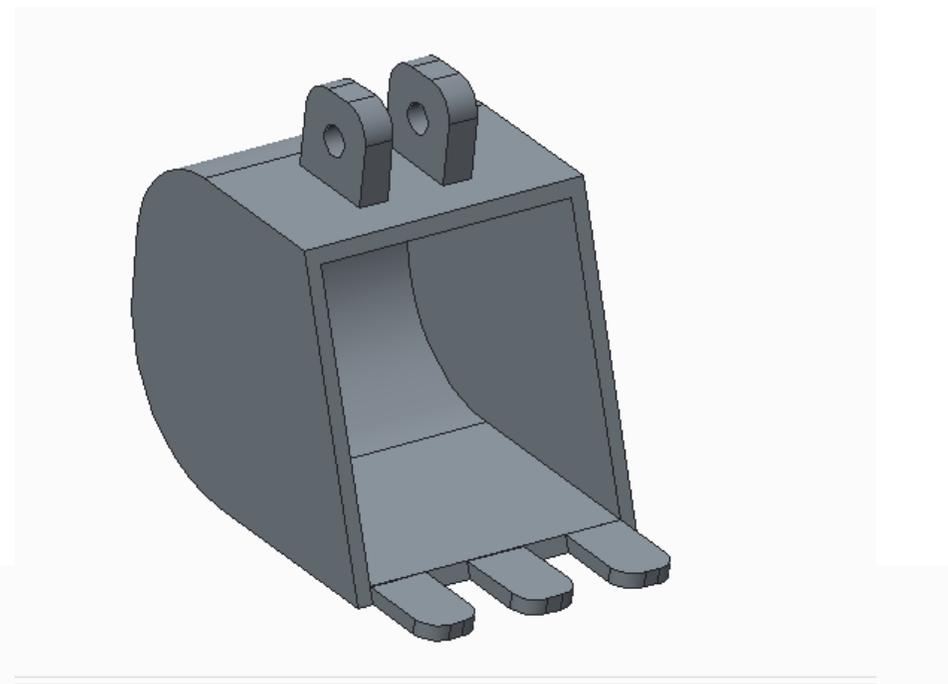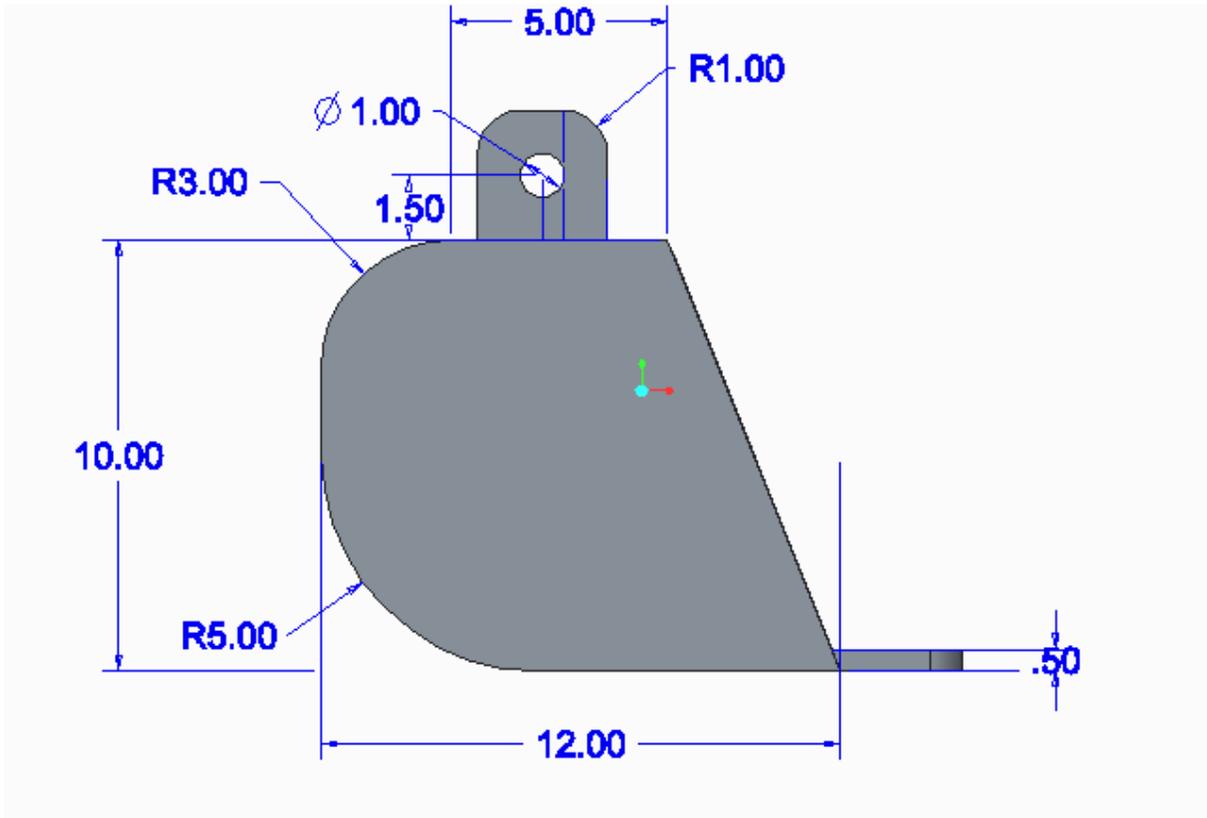
CAD Module

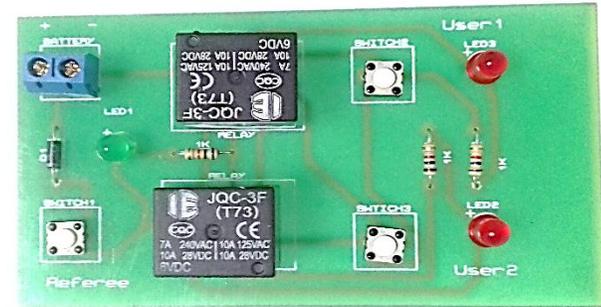**Learning Objective 1:** Create and interpret mechanical drawings

Learning Objective 2: Recall and demonstrate workshop/industrial safety practices.

- Week 1
  - Design methodology for scientists and engineers
  - Introduction to Engineering Drawing
  - Engineering Drawings
    - Standards, Types, Projections
  - **Lab Task 5:** Sketch orthographic projections of solid objects

- Week 2
  - Computer Aided Modeling
    - Intro to PTC Creo and its features
    - 2D sketching
    - Basics of 3D object modeling
  - **Lab Task 6**: 3D part modeling.

- Week 3
  - Advanced features of PTC Creo Parametric 2.0:
  - **Lab Task 7:** 3D part modeling

- Week 4
  - Assembly
  - **Lab Task 8:** Assembly task

- Week 5
  - **Lab Task 9:** Create parts and assembly drawings for a robotic hand (gripper)
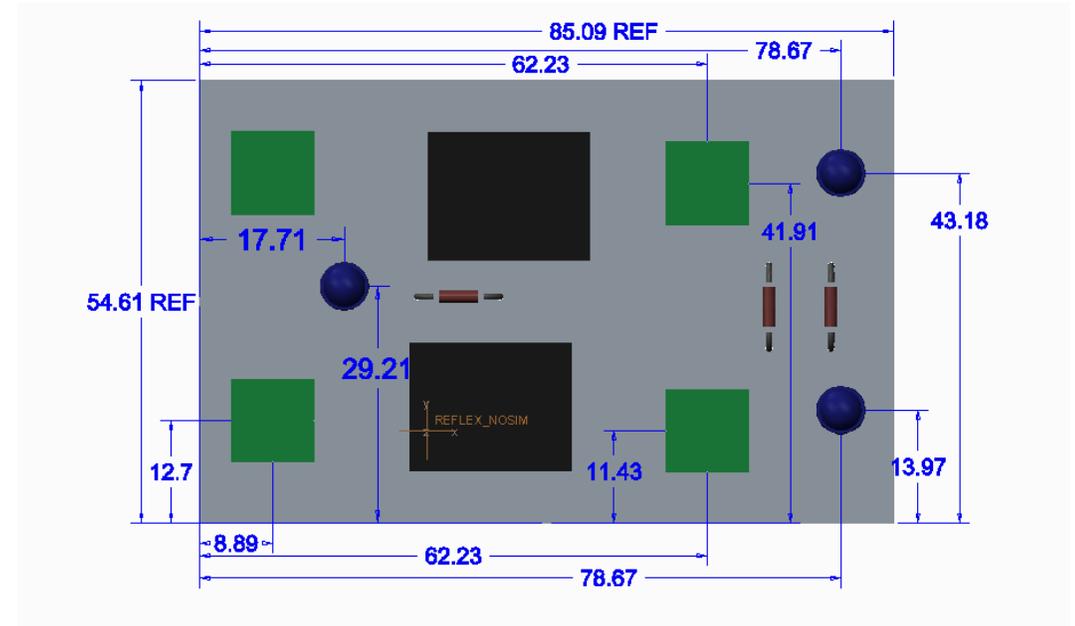
Demonstration 3

Lab Task 6

- You might remember the reflex action game, that you made in the PCB module.

- You are now required to make a housing (box) for this game so that no circuit is visible to the users.

Lab Task 6(A)

Lab Task 6(B)