

Engineering Principles

Precision Measurements

Science

Technology

Engineering

Math



ENERGY CONCEPTS, INC.



Precision Measurements

In ECI 272S training system, students develop skills using a range of tools and mathematics for attaining measurements. The hands-on experiments help students gain the ability to make accurate measurements and dimensions, which is often crucial for the success or failure of a project. Students will find that these skills will be useful in virtually any career path.

Components

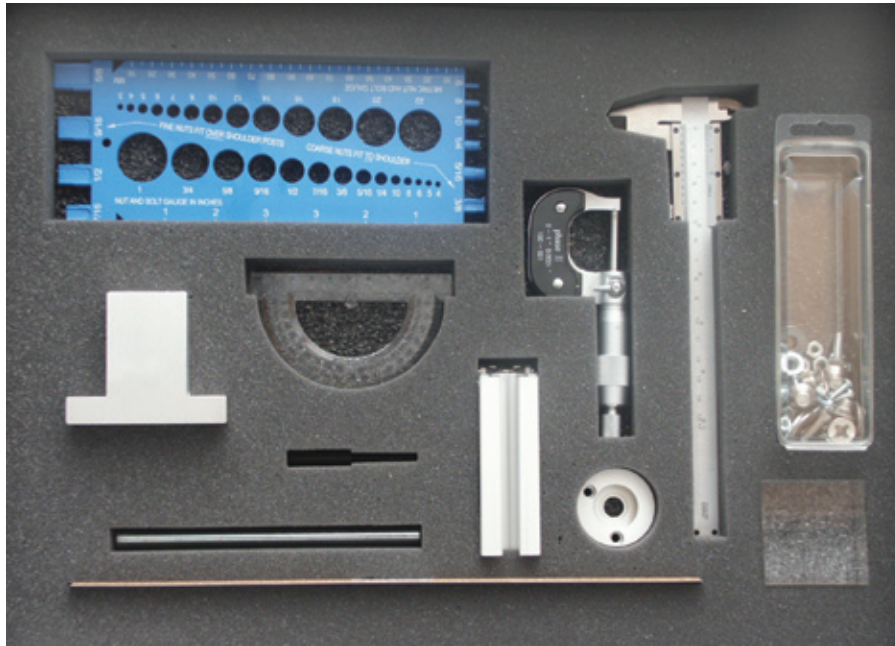
Measurement Objects

Acrylic Block
Two-Step Rod
Metal Object #1
Metal Object #2
Metal Object #3
Screw, Nut, and Washer Set

Includes ten each of the following:
Four different sizes of screws
Four different sizes of nuts
Three different sizes of washers

Measurement Tools

- Protractor
- Vernier Caliper
- Micrometer
- Steel Rule
- Screw and Nut Gauge



The Laboratory Manual

The Lab manual is designed to help students develop a thorough understanding of the subject matter. The manual is clearly written and professionally illustrated. It is printed in two-colors and comes in a quality vinyl binder.

System Familiarization

Inventory of Tools and Objects

Precision Measurements

Introduction

Using a Steel Rule

Reading a Fractional Scale
Reading a Decimal Scale
Reading a Centimeter Scale
Measuring Objects

How to Read a Vernier Caliper

Reading an English Scale
Reading a Metric Scale
How to Measure Depth
Digital and Dial Calipers
Measuring Objects

Using a Micrometer

How to Read a Micrometer
Types of Micrometers
Reading a Metric Micrometer

Using a Protractor

Reading the scale on a protractor
Measuring Angles

Screw and Nut Measurements Using a Gauge

Classes and Sizes of Screws
Measuring Screws
Measuring Nuts



Instructor's Resource Guide

The Resource Guide includes sample data and answers to quiz questions, as well as a Student Journal CD. The journal provides a convenient way for students to enter and save their data and answers to experiment questions. The instructor can also have the students print paper copies to hand in for grading.

