



## **Motor Objectives and Outcomes**

### **Drafting/CAD**

#### **Objectives:**

- Define the components required in the design of an electric motor.
- Identify the necessary fasteners and thread information as applied to the project.
- Examine the functionality of 2D and 3D CAD software.
- Research the necessary information used in engineering drawings.

#### **Outcomes:**

Upon completion of this project, the student will be able to:

- Identify the components required in the design of an electric motor.
- Specify correctly the fasteners and thread requirements of the project.
- Create 2D drawings or 3D models of all necessary parts.
- Create a working drawing necessary for manufacture of a machined part.
- Create an assembly drawing necessary to assemble the electric motor.

## **Machine Tool**

### **Objectives:**

The student will:

- Examine the information available on engineering drawings.
- Identify commonly used components used in fixturing parts.
- Determine the necessary fixture used to manufacture project parts.
- Define necessary information in operation of a modeling machine center.
- Become familiar with assembly procedures used in manufacturing.

### **Outcomes:**

Upon completion of this project, the student will be able to:

- Read and interpret an engineering drawing.
- Fixture the blank material on a modeling machining center.
- Manufacture, using faceted information, a scale model of the required components.
- Assemble, according to the print, the project device.

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