

# Communications Device Design Challenge

Problem: Although there are a number of great communications devices, *form and function* are two areas that, if designed with enough creativity, will result in devices that will sell for more money, and greater profits. We want to target high school students as our potential buyers, since there are so many of them and they have many uses for these types of devices.

Your challenge is to design a multi-part (at least four parts) communications device *mock up* whose form will be appealing to high school students. It must be affordable and appealing.

Here are your Project Rules:

- Because we will be tapping the international market, and might also be building these devices in countries all over the world, you will design your device in millimeters.
- No larger than **130 mm x 80 mm x 30 mm**
- Must have *keypad protection*.
- Must have a *visible keypad*.
- **USB** output port
- **Power** port
- **Earphone** port.
- At least *4 visible parts*

Since the Electronics Division will design the circuitry, your design should only deal with the *aesthetics* of the communications device. That is, the look and feel of the device.

## *Time Frame – 2 weeks*

Procedure – Choose a partner or partners (teams of two or three). Follow the *Design Process* to accomplish the following steps:

\_\_\_\_\_ Sketch four design concepts

\_\_\_\_\_ Select and Sketch ONE of your concepts, or combine elements from your four concepts. Your sketch must have rough dimensions.

\_\_\_\_\_ Design your chosen sketch on ProENGINEER

\_\_\_\_\_ Build your design using the materials supplied in class

\_\_\_\_\_ Create Engineering Drawings of your parts and assembly.