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 communications device mock up whose form will be appealing to high school students. It must be affordable and appealing.

Here are your criteria:

- 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 a visible keypad.
- USB output port
- Power port
- Earphone port.
- At least 4 other objects (ports, switches, connections)

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 – 3 class periods

Procedure:

1. Research Communication Devices on the Internet: (15 minutes)
2. Isometric sketch and three sketched views of ***your own*** idea.
3. Download the drawing template from Moodle.
4. Create Drawing in AutoCAD – 5 views (Top, Left, Right, Front, Rear).
    a. Separate layer for DIMS
    b. Dimension any objects that are non-standard.
5. Print drawing and Upload drawing to Moodle.

** Use the Array and Fillet commands to complete this project. Audio/Video tutorials for both on Mr. Brunelle's web site.