Product Development Services

ACS is a product and technology development company with decades of experience in consumer, industrial, medical, military, and automotive industries providing electronic design and software solutions. Since 1983, ACS has provided electronic design services of a wide range of low voltage, low powered products for moderate and advanced designs.
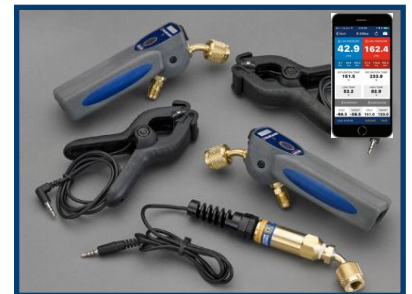
Two Categories of Customers:

1. Firms that manufacture mostly non-electronic devices and have a desire to offer advanced new models or to improve the capabilities and features of existing products by using integrated electronics. A example is to integrate sensors and a radio device to enable remote monitoring. Often the firms lack the internal electronic expertise to develop the products and platforms in a timely manner.

2. Companies that have existing products that operate using control panels or switches/dials that are mounted directly on the equipment and they desire to have the unit controlled by a smart phone or wireless tablet. This also enables the machine's data and operating history to be transferred onto the wireless device which can be communicated elsewhere or presented to the user.

Automotive A/C recovery unit with 2 Bluetooth radio connections to ACS-developed Window's tablet app.

Philosophy/Approach: We consider ourselves more than product development experts who develop electronic products for our clients. We are also consultants to our customers who desire to develop their own expertise and competency in electronic product development.

Our goal is to teach you how to develop your own products without our help. We will provide hands-on NPD work while simultaneously helping you identify and establish the capabilities, skills, tools, systems and processes to perform the work in the future. We will work with your engineering team to train, educate, advise and teach your internal staff the details and process of low voltage NPD and wireless technology.

Pressure/temperature/vacuum sensing system with 3 Bluetooth radio connections to Android or iOS smartphones.

Knowledge/Experience Area: We have a powerful and focused expertise in electronic device design (hardware and software), wireless device development, and real-time communication between a functional device and a wireless interface such as a tablet or smart phone. ACS can also develop the app for iOS, Android or Windows platforms that operates the device.

Our specific area of expertise includes:

- Wireless technologies (Wifi, Bluetooth, Zibee, cell network)
- Sensor technology
- Electronic hardware definition and design
- On board controls software
- Schematic creation
- BOM identification
- *Proof of Concept* creation and validation
- Prototype design
- PCB layout
- Electrical and software engineering
- Battery management and low power consumption designs

Diagnostic automotive tool with 3 sensors and 3 Bluetooth radios communicating continuously to an ACS-developed app on both a Windows tablet or on iOS or Android smartphones. Also includes a 4th Bluetooth interface to a dedicated custom-configured wireless printer. Also includes WiFi cloud-based remote monitoring.