

# BASIC Stamp Activity Kit - USB (Text v3.0)



## Overview

Know electronics and want to learn programming? Or know programming and want to learn electronics? Learn both side-by-side with BASIC Stamp Activity Kit!

Want to make your own inventions? Learn circuit-building and programming at the same time with the BASIC Stamp microcontroller! It's a tiny on-board computer like the ones found in many electronic devices. Discover how common components work as you go step-by-step through 40 hands-on activities in the 350-page What's a Microcontroller? text. Side-by-side schematics and wiring diagrams give you confidence in building the circuits, and each example program is followed by a detailed explanation so you learn as you go.

Once you've mastered the basics, you can expand your horizons with Robotics with the Boe-Bot, Smart Sensors and Applications, Understanding Signals, and other Parts & Text Kits in the Stamps in Class series.

### **Key Features:**

- Build simple circuits with schematics and wiring diagrams
- Write programs in PBASIC to control the circuits
- Send signals by blinking LEDs
- Sense contact with pushbuttons
- Read a dial using a potentiometer
- Measure light with a phototransistor
- Control motion with a servo motor
- Play tunes on a piezo speaker
- Display data on a 7-segment LED
- Combine several circuits to prototype an invention

## Details

### **Kit Contents:**

- HomeWork Board with a built-in BASIC Stamp 2 microcontroller
- What's a Microcontroller? Text with 40 hands-on activities
- Electronic input, output, and passive components for building circuits
- Programming cable for your PC's USB port
- 6 - 1k ohm Resistor 1/4 Watt (#150-01020)
- 8 - 10k ohm Resistor 1/4 Watt (#150-01030)
- 2 - 2k ohm Resistor 1/4 Watt (#150-02020)
- 3 - 220 ohm Resistor 1/4 Watt (#150-02210)
- 2 - 470 ohm Resistor 1/4 Watt (#150-04710)
- 1 - 4.7k ohm Resistor 1/4 Watt (#150-04720)
- 1 - 10k Potentiometer (#152-01031)
- 1 - 0.01uF 50V poly Capacitor (#200-01031)
- 1 - 1000uF Capacitor (#201-01080)
- 4 - 0.1uF Mono Radial Capacitor (#200-01040)
- 1 - 1uF Electrolytic Capacitor (#201-01050)
- 2 - 10uF Electrolytic Capacitor (#201-01062)
- 1 - 3300uF Capacitor (#201-03080)
- 2 - Green LED (#350-00001)
- 1 - Bi-Color LED (#350-00005)
- 2 - Red LED (#350-00006)
- 2 - Yellow LED (#350-00007)
- 1 - 7-Segment LED Green (#350-00027)
- 1 - Phototransistor (#350-00029)

- 2 - Tact Switch (#400-00002)
- 1 - 3-Pin male/male Header (#451-00303)
- 1 - Transistor 2N3904 (#500-00001)
- 1 - Digital Potentiometer AS5220-B10 (#604-00010)
- 1 - 3" Jumper Wires, bag of 10 (#800-00016)
- 1 - Piezo Speaker (#900-00001)
- 1 - Parallax Standard Servo (#900-00005)