

## BS2 Educational Starter Kit

This complete "Getting Started" kit is enhanced to include the *What's a Microcontroller?* (WAM) curriculum. Includes all of the BASIC Stamp hardware required to complete the activities and challenges. The WAM kit includes a series of over 40 activities designed to provide you with the best possible introduction to the world of BASIC Stamps.



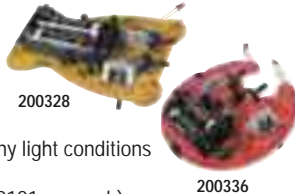
**Includes:** BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

Part No.	Product No.	1	10
282829	27207	\$158.95	\$152.95

## velleman Micro Bug Kits

A brightly colored miniature bug-shaped robot that is attracted to light.

- Two open chassis sub-miniature motors
- LED "eyes" indicate driving direction
- Adjustable light sensitivity that suits almost any light conditions
- Stops in total darkness
- Size: 4.0" x 2.4"



**Requires:** 2 AAA batteries (recommend P/N 249181, see web)

Part No.	Product No.	Description	Pieces	1	10
200328	MK127	Running	26	\$18.95	\$16.95
200336	MK129	Crawling	29	\$21.45	19.35

## OWI Obstacle Avoidance Robot Kit

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.



Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140821	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	\$54.99	\$49.99

## OWI Robotic Arm Trainer Kit

**Five Axes of Motion** Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its wired controller to grab, release, lift, lower, rotate wrist, and pivot sideways.

- Max. length: 14.2"
- Max. height: 20.1"
- Max. lifting capacity: 4.6 oz.
- Grip opens to 2" wide
- Shoulder movement @ 120°
- Elbow moving range @ 135°
- Wrist rotation clockwise or counter clockwise: 340°
- Rotates left to right at the base 350°
- Weight: 4.5 lbs.



**Requires:** 4 D batteries (recommend P/N 215845, see web)

Part No.	Description	1	10
157366	Robotic arm kit (unassembled)	\$83.95	\$76.44
159345	Robotic controller software (DOS 4.2 & up, Windows® 95/98)	85.79	77.26

## DC to Pulse-Width-Modulator Kit

The circuit converts a DC voltage into a series of pulses, directly proportional to the value of the DC voltage.

- Operating voltage: 8 to 35VDC
- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Min. consumption: 35mA
- Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120539	K8004	3.3"L x 1.9"W x 1.8"H	0.5	\$22.95	\$20.49

## USB Interface Card Module

Interface board has 5 digital input channels and 8 digital output channels. In addition, there are two analog inputs and two analog outputs with 8-bit resolution. Inputs/outputs can be expanded by connecting more cards to the PC's USB port (max. of four).

- Diagnostic/Test Software**
- Clear all/set all function
  - Analog output set sliders
  - Separate output/input test
  - Analog input bar-graph indication
  - Counter function on inputs 1 and 2 with adjustable debounce

Part No.	Description	1	10
645263	USB interface card module	\$70.79	\$69.65

## Dual Adj. Regulated Power Supply Kit

Build a dual adjustable power supply for your circuits.

- Adjustable positive/negative supplies  $\pm 5$  to  $\pm 15$ VDC, 175mA-750mA per supply
- LED on indicator
- 120VAC input
- PC board construction



Part No.	Cross Ref. No.	Dimensions	Wt. (lbs.)	1	10
20626	JE215	5.1"L x 3.5"W x 2.0"H	2.1	\$27.54	\$24.59

## Function Generator Kit

**Sine, Triangle and Square Wave** Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)
- Requires:** 12VDC supply or  $\pm 6$ VDC split supply (recommend P/N 20626, above)



Part No.	Cross Ref. No.	Dimensions	1	10
20685	JE2206	4.1"L x 1.5"W	\$24.95	\$22.95

## velleman Universal Mono Pre-Amplifier

For audio applications with insufficient input signal.

- Output impedance: 1k $\Omega$
- Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz  $\pm 1$ -3dB
- Adjustable output level: 40dB max.



**Requires:** 10/30VDC @ 10mA power supply (recommend P/N 20626, above)

Part No.	Product No.	Dimensions	1	10
117612	K1803	1.2"L x 1.8"W	\$8.95	\$7.95

## velleman 7-Watt Amplifier Kit

- Music output power: 7W @ 4 $\Omega$
- Short circuit/overload protection
- RMS output: 3.5W @ 4 $\Omega$  & 2W @ 8 $\Omega$
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)



**Requires:** 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803, pg 196); speakers

Part No.	Product No.	Dimensions	1	10
127255	K4001	2.2"L x 1.4"W	\$14.95	\$13.36

## Infrared Transmitter/Receiver Kit

Transmit a 40kHz modulated IR signal a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

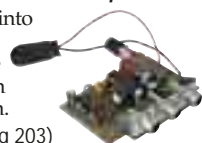


- Transmitter size: 1.0"L x 0.8"W
- Receiver size: 1.4"L x 1.2"W
- Requires:** 6 to 15VDC battery (recommend P/N 151095, pg 203)

Part No.	Cross Ref. No.	Description	1	10
177092	IR-2	Transmitter/receiver	\$24.95	\$22.49

## velleman FM Stereo Transmitter Mini Kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 88-108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.



**Requires:** 9VDC power supply (recommend P/N 151095, pg 203)

Part No.	Description	Dimensions	1	10
151239	FMST-100 stereo kit	2.7"L x 2.0"W	\$29.95	\$26.95

## velleman FM Transmitter

Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

- Integrated pre-amplifier (sensitivity 5mV)
- Requires:** 9-12VDC power supply (recommend P/N 20626, above)



Part No.	Product No.	Dimensions	1	10
117604	K1771	1.8"L x 2.8"W	\$12.90	\$12.66