

# Textbooks

Each textbook has detailed instructions so you can easily build your own robots. Enjoy learning!

### Basic Course

## **Complete Edition**

### **Basic Course**

4 Textbooks = 16 Class hours!

#### Vol. 1 Stop and Go



- · How traffic signals work
- · Making a pedestrian signal
- · Making a push-button signal · Making an accessible signal

# **Making a Light** Show



- · A town full of light
- · Making your light show
- · A light show with sensors
- · Making sound-powered light show

#### Vol. 3 Making a Robot Car



- · Driving safe
- Electric cars with motors
- · How a car turns
- · Self-driving cars

#### Vol. 4 **Automatic Doors**



- · All about automatic doors
- · Building an automatic doors · Programming doors with sensors
- · A safer automatic door

### **Intermediate Course**

5 Textbooks = 20 Class hours!

## Controlling **Motor Cars**



- · Driving with two DC motors
- Self-driving systems
- · Collision avoidance systems
- · The line tracer

#### Vol. 2 **Electronic** Instruments



- Programming with variables
- · An electric music box
- · Making a guitar
- · A better guitar

#### Vol. 3 Robots at Work



- Three-axis arm robots
- Controlling an arm robot · Variables and servomotor
- angles
- · Making deliveries

#### Vol. 4 **Machines** and Mechanisms



- Machine elements
- Linkage wipers
- · Forklifts with gears · Forklift control

#### Vol. 5 The World of Games



- Game development and character mode
- · Banana catcher
- · Expanding the game
- · Show and tell

### **Advanced Course**

#### 4 Textbooks = 16 Class hours!

## Playing with **Controllers**



- All about accelerometers
- Car control
- · Making a battlebot
- Robot dueling

# All About Walkbots



- Building a walkbot
- · The bipedal walkbot
- Programming the walkbot
- · Improving your walkbot

### Vol. 3 The Factory



- Building a scanbot
- ·Improving your scanbot
- Sorting blocks
- ·Counting things up

# **Advanced Game** Making



- Making a vertical shooter
- •The basics of the game
- ·Building the game system
- ·Show and tell

