

# CHAPTER 14

## INDEX

### A

Adjustable Table, 58  
 Alarm, 85, 112, 134  
 Amplifier, 224  
 Amputee, 100, 101, 178  
 Antenna, 181  
 Anterior Cruciate Ligament, 26  
 Armrests, 52, 95  
 Arthritis, 13, 18, 19, 24, 138  
 Audio, 128, 129, 134  
 AutoCad, 5, 7  
 AutoCAD, 5, 7, 190, 194

### B

Backpack, 86, 87, 147  
 Battery, 57, 66, 68, 69, 72, 86, 88, 92, 113, 129, 144,  
 150, 151, 152, 158, 164, 217, 218, 225  
 Bed, 190, 192, 193, 197, 198  
 Bicycle, 36, 50, 51, 102, 120, 131, 132, 136, 211  
 Blind, 2, 6, 84, 112, 118, 128, 134, 181  
 Board, 1, 7, 41, 42, 56, 57, 60, 62, 64, 94, 95, 113, 136,  
 143, 144, 164, 186, 200, 214, 215, 216, 227  
 Brace, 20, 21, 30, 144  
 Brain Injury, 62  
 Busy Board, 64  
 Button, 18, 19, 38, 49, 57, 92, 104, 107, 112, 113, 138,  
 139, 148, 149, 162, 205, 214, 224, 226

### C

CAD, 7  
 Camera, 112, 186, 196, 197  
 Car, 18, 19, 37, 44, 48, 49, 106, 139, 144  
 Cart, 22, 23, 172, 173, 174, 175, 177  
 Cause and Effect, 152, 158, 164  
 Cause-Effect, 2, 116, 117, 126  
 CD, 12, 13  
 Central Nervous System, 12  
 Cerebral Palsy, 32, 34, 36, 86, 142, 146, 148, 150, 152,  
 154, 156, 158, 160, 162, 204, 206, 208, 214, 226

Chair, 14, 16, 17, 34, 51, 53, 68, 69, 74, 75, 86, 87, 90,  
 94, 114, 123, 142, 168, 172, 174, 175, 176, 186, 188,  
 190, 192, 194, 196, 198, 210, 211, 218  
 Chassis, 5, 144  
 Child, 24, 32, 33, 34, 35, 36, 37, 46, 48, 50, 98, 99, 126,  
 148, 150, 151, 152, 153, 154, 155, 156, 158, 164, 200,  
 208, 214, 220, 222  
 Children, xi, 2, 34, 35, 36, 38, 46, 98, 110, 111, 112,  
 116, 117, 126, 134, 142, 148, 150, 152, 154, 156, 158,  
 162, 164, 165, 200, 201, 206, 222  
 CMOS, 224  
 Collapsible, 114  
 Communication, xi, 162, 214  
 Compact Disc, 12  
 Computer, viii, 4, 5, 38, 84, 85, 110, 111, 113, 119,  
 126, 186, 188, 190, 192, 194, 196, 198, 213, 220, 228  
 Control, 21, 38, 50, 56, 57, 81, 84, 85, 88, 90, 92, 94,  
 98, 99, 109, 120, 125, 130, 131, 136, 137, 138, 139,  
 148, 154, 158, 160, 162, 164, 174, 183, 186, 187, 188,  
 190, 192, 193, 194, 196, 198, 200, 204, 205, 208, 214,  
 215, 216, 218, 224, 226, 227, 228  
 Controller, 136, 137, 186, 187, 194, 198  
 Converters, 228  
 Crawling, 32, 33

### D

Database, 3  
 Deaf, 36  
 Dental, 172, 173, 174, 175, 176  
 Desk, 34, 35, 56  
 Detection, 124  
 Diabetes, 182  
 Door Opener, 44, 104  
 Drive Train, 72, 178, 179  
 Driving, 98, 188, 198, 218

### E

Eating Tray, 14  
 EEPROM, 113  
 Encoder, 143, 144, 188  
 EPROM, 227  
 Exercise Bicycle, 136

## F

Feedback, 3, 6, 7, 72, 156, 186, 188, 196, 198, 214, 222, 223, 224, 226, 228  
 Foot, 17, 46, 70, 71, 181, 218  
 Force Sensing Resistor, 228

## G

Garage Door Opener, 44  
 Gear, 18, 19, 44, 46, 49, 87, 98, 102, 103, 111, 120, 136, 139, 172, 173, 179, 188, 197, 205  
 Glasses, 180, 181

## H

Hair, 70, 71  
 Hair Washing, 70, 71  
 Head Switch, 160  
 Home, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 124, 182  
 Horseback Riding, 146  
 Hydraulic, 123, 168, 172, 173, 174, 175, 176, 182, 183

## I

Infrared, 2, 150, 188, 226, 227  
 Inverter, 224

## K

Keyboard, 220, 226  
 Kite, 68, 69  
 Knee, 20, 21, 25, 26, 100, 101, 182  
 Knee Brace, 21, 26

## L

Lap Table, 94, 95  
 Laser, 2, 187  
 Laundry, 22, 23  
 Lazy Susan, 72, 73  
 LCD, 156  
 LED, 38, 104, 116, 142, 144, 152, 156, 214, 216, 217, 226  
 Leg, 21, 22, 25, 34, 35, 36, 37, 48, 58, 80, 100, 101, 108, 153, 182, 200  
 Lift, 44, 182, 218, 219

## M

Magnet, 12, 111, 136  
 Microcomputer, 118, 119  
 Microphone, 66, 67, 113, 125, 224  
 Microprocessor, 3, 4, 7, 216, 217, 227, 228  
 Mirror, 119, 154, 180, 181

Mirrors, 180, 181  
 Mobility, 106  
 Motor, 48, 49, 62, 66, 72, 81, 87, 88, 98, 104, 110, 111, 116, 117, 119, 126, 127, 136, 137, 138, 139, 146, 148, 158, 160, 162, 164, 168, 172, 173, 178, 179, 183, 188, 200, 204, 205, 214, 218, 228  
 Motorola, 119, 216  
 Motors, 228  
 Mouse, 38  
 Multiple Sclerosis, 12, 14, 22, 30, 44

## N

NAND, 144  
 Navigation, 190  
 NSF, x, xi, 1, 2, 3, 5, 8, 173

## O

Op Amp, 224  
 Orthosis, 8

## P

Painting, 35  
 Paraplegic, 40, 42, 90  
 Photography, 6  
 Physical Therapy, 148  
 Piezoelectric, 119  
 Plexiglas, 56, 81, 95, 152, 153, 158  
 Plywood, 41, 42, 44, 60, 64, 74, 76, 114, 144, 148, 153, 173  
 Polyethylene, 25, 113  
 Polyurethane, 216  
 Posture, 208  
 Potentiometers, 146  
 Power Supply, 7, 72, 151, 198, 224, 225, 226  
 Pregnant, 24  
 Prosthesis, 100, 182  
 Puzzle, 62  
 PVC, 19, 33, 36, 41, 42, 51, 67, 143, 144, 153

## Q

Quadriplegic, 94, 204

## R

Radio, 57, 85, 125, 224, 226, 227  
 Radio Shack, 57, 85  
 RAM, 190  
 Reading, 214  
 Receiver, 2, 125, 226, 227  
 Recreation, 46, 56, 62  
 Reed Relays, 144  
 Regulator, 85

Rehabilitation, viii, 2, 5, 6, 20, 21, 26, 106, 136, 203, 204, 206, 208, 210  
 Relay, 88, 92, 98, 144, 150, 157, 158, 160, 205, 225  
 Remote, 44, 104, 142, 144, 160, 162, 186, 188, 196, 198, 226, 227, 228  
 Remote Control, 44, 104, 142, 144, 160  
 ROM, 21

## S

Safety Factor, 51, 218  
 Scanner, 7, 118  
 Scooter Board, 200  
 Screwdriver, 115  
 Sensor, 84, 85, 113, 128, 150, 228  
 Sensory Stimulation, 98, 116  
 Shaving, 24, 25, 152  
 Ski, 25, 132, 178  
 Speech, viii, xi, 2, 80, 154, 214  
 Springs, 139, 165, 218  
 Standing, 40, 41, 42, 49, 58, 76, 168, 181, 208  
 Steering, 18, 46, 49, 188, 194  
 Support, xi, 1, 6, 14, 15, 16, 22, 23, 30, 32, 33, 34, 35, 36, 40, 41, 42, 46, 51, 52, 53, 62, 77, 84, 86, 87, 88, 90, 92, 94, 111, 127, 136, 143, 148, 173, 175, 176, 179, 182, 183, 193, 197, 200, 205, 208, 210, 211, 216  
 Swing, 90, 116  
 Switch, 17, 44, 49, 57, 62, 71, 81, 84, 85, 87, 88, 92, 98, 104, 110, 111, 113, 116, 126, 127, 128, 129, 132, 138, 139, 144, 147, 148, 150, 151, 152, 154, 155, 156, 158, 160, 162, 163, 168, 183, 204, 205, 206, 214, 216, 218, 222, 224, 225

## T

Table, 34, 35, 38, 41, 42, 52, 53, 58, 59, 62, 64, 88, 94, 95, 110, 111, 152, 153  
 Telephone, 2  
 Thermistor, 134  
 Thermometer, 134  
 Time Delay, 92

Timer, 217  
 Toy, 112, 116, 117, 142, 150, 154, 156, 158, 164  
 Toys, 116, 150, 152, 153, 156, 158, 164, 222  
 Train, 44, 158, 178, 194  
 Trainer, 142, 143, 144, 194, 214, 215, 216, 217  
 Training Wheels, 36  
 Transducer, 112, 113, 128, 129  
 Transmission, 103, 113, 224  
 Transmitter, 113, 125, 144, 224, 226, 227  
 Transportation, 87, 175, 210  
 Tricycle, 36, 37, 46

## U

Ultrasonic, 84, 85, 112, 129

## V

Velcro, 12, 13, 27, 30, 36, 42, 49, 51, 147, 156, 220, 221  
 Visual Impairment, 224  
 Voice, xi, 66  
 Voice Activation, 66  
 Voltage Regulator, 144

## W

Walker, 36, 76, 77, 90, 100, 101, 106, 107, 114, 115, 208  
 Wheel, 14, 18, 36, 46, 58, 90, 102, 103, 123, 133, 142, 143, 144, 158, 168, 176, 188, 192, 193  
 Wheelchair, 12, 13, 14, 16, 44, 52, 60, 68, 69, 70, 71, 74, 75, 80, 86, 87, 88, 90, 94, 95, 98, 100, 102, 103, 122, 123, 126, 132, 133, 142, 143, 144, 160, 168, 172, 175, 176, 180, 182, 183, 186, 187, 188, 190, 192, 194, 196, 197, 198, 204, 218, 219, 226  
 Wheelchair Access, 16, 172  
 Wheelchair Lift, 44, 182, 183  
 Wheels, 49, 210  
 Work Station, 40, 42, 80, 81  
 Workstation, 80



