Projects 213-214: Make an AM radio transmitter using the music IC or the alarm IC. See chapter 8 for information about radio circuits.

Projects 217-219: Use the alarm IC with capacitors to make sirens that fade away.

Projects 220-221: The music, alarm, and space war ICs are used to control the speaker and lamp at the same time.

Projects 233-234: Uses the space war IC in a mind-reading game.

Project 237: Use the power amplifier IC to amplify sounds from the space war IC.

Projects 238-239: Use the power amplifier IC with feedback to make fun sounds.

Projects 240-241: Use the power amplifier IC with your finger to make fun sounds.

Project 242: Makes an AM radio receiver using the high frequency and power amplifier ICs. See chapter 8 for information about radio circuits.

Projects 243-244: The music, alarm, and space war ICs are used to control the speaker and lamp at the same time.

Project 245: Use the music and space war ICs with the whistle chip to make a vibration sensor with fun sounds.

Projects 248-249: Make fun sounds and lights with the space war IC.

Projects 250-251: Use the photoresistor and space war IC to control a fan and a lamp.

Project 255: Makes an alarm by using the music IC as an AM radio transmitter. See chapter 8 for information about radio circuits.

Projects 269-271: Makes an alarm by using the music and alarm ICs, controlled by the whistle chip, motor, or photoresistor.

Projects 274-275: Uses the power amplifier IC to amplify sounds from the microphone and whistle chip.

Project 277: Uses the music IC and photoresistor to control the space war IC (in most manuals).

Project 278: Combines the sound effects of the music and alarm ICs.

Project 279: Uses the alarm and music ICs to control fans, speakers, and LEDs.

Projects 286-287: Use the power amplifier IC with feedback to make an oscillator.

Project 288: Makes an AM radio receiver using the high frequency IC and transistors. See chapter 8 for information about radio circuits.

Project 289: Makes an AM radio receiver using the high frequency and power amplifier ICs. See chapter 8 for information about radio circuits.

Project 290: Use the power amplifier IC to amplify sounds from the music IC.

Project 293: Use the power amplifier IC to amplify sounds from the alarm IC.

Projects 297-298: Use the alarm IC with transistors and capacitors to make sirens that fade away.

Project 299: Use the microphone to control the space war IC.

Summary

Summary of Chapter 7:

1. Integrated Circuits are miniature circuits with many transistors, resistors, capacitors, and wires all made on a semiconductor base.
2. The ICs in snap circuits are modules containing specialized integrated circuits and supporting parts that are always needed with them.

Quiz

Chapter 7 Practice Problems

1. The following parts can be built into an integrated circuit except:
   A. Diodes
   B. Switches
   C. Resistors
   D. Transistors

2. Which of these electrical products is least likely to have an integrated circuit in it?
   A. Lamp
   B. Garage door opener
   C. Car
   D. Radio

3. If you replace one component in this circuit with a 3-snap then it will make space war sounds, which component is it?
   A. 100Ω Resistor
   B. 0.02µF Capacitor
   C. 10KΩ Resistor
   D. 100KΩ Resistor

4. Which of the following are advantages of integrated circuits?
   A. Size
   B. Reliability
   C. Cost
   D. All of the above

Answers: 1. B, 2. A, 3. D, 4. D