Chapter 8: Robot Control with Distance Detection:

Vocabulary words used in this lesson.

- ***Closed Loop Control*** also known as a feedback control system is a control system which uses the concept of an open loop system as its forward path but has one or more feedback loops (hence its name) or paths between its output and its input.

- ***Proportional Control*** is a control loop feedback mechanism widely used in industrial control systems and a variety of other applications requiring continuously modulated control. Two classic mechanical examples are the toilet bowl float proportioning valve and the fly-ball governor. The proportional control concept is more complex than an on-off control system like a domestic thermostat, but simpler than a proportional-integral-derivative (PID) control system used in something like an automobile cruise control. On-off control will work where the overall system has a relatively long response time, but can result in instability if the system being controlled has a rapid response time. Proportional control overcomes this by modulating the output to the controlling device, such as a control valve at a level which avoids instability, but applies correction as fast as practicable by applying the optimum quantity of proportional gain.

- ***Frequency Sweep Routine*** is simply calculating the response of the antenna over a range of *frequencies*.

- ***LOOKUP Command*** in PBASIC is the best approach for storing a short list of values that you want to use in sequence. It retrieves items stored in an array and places them into a variable.

- ***Shadow Vehicles*** are moving trucks with attenuators spaced a short distance from a moving operation, allowing the lead vehicle to control where the vehicles behind go as they follow and mimic its operations.

- ***Relative Sensitivity*** Ability to determine differences in stimulus intensity. Sensitivity and specificity are statistical measures of the performance of a binary classification test, also known in statistics as classification function.

- ***IR Detector*** is a detector that reacts to infrared (IR) radiation.