Chapter 5: How Do Robots Think?

Vocabulary words used in this lesson.

- ***Artificial Intelligence*** the capability of a machine to imitate intelligent human behavior.

- ***Autonomous Navigation*** is a type of navigation where a vehicle is able to plan its path and execute its plan without human intervention.

- ***Circuit*** the complete path of an electric current, including the generating apparatus, intervening resistors, or capacitors.

- ***Diameter*** a straight line passing from side to side through the center of a body or figure, especially a circle or sphere.

- ***GOSUB command*** is a command in many versions of the BASIC computer programming language to start a subroutine or direct the control of the program to a subroutine.

- ***I/O register*** A *register*, perhaps one *of* several, used during the process *of* exchanging data between *I/O* devices and the main computer.

- ***IF..THEN command*** The most basic *conditional* construct in a programming language, allowing selection between two alternatives, dependent on the truth or falsity of a given condition.

- ***Input Register*** A *register* that accepts *input* information from a computer at one speed and supplies the information to the central processing unit at another speed, usually much greater.

- ***LED light*** A *light-emitting diode* (*LED*) is a semiconductor device that emits visible *light* when an electric current passes through it.

- ***Main Routine*** The main sequence of logic in a program. Can branch off to a common subroutine when necessary, and return back when the subroutine ends.

- ***Monitor*** an instrument or device used for observing, checking, or keeping a continuous record of a process or quantity.

- ***Obstacle*** a thing that blocks one's way or prevents or hinders progress.

- ***PAUSE command*** a temporary stop in a program for a specific amount of time.

- ***Sensor*** a device that detects or measures a physical property and records, indicates, or otherwise responds to it.

- ***Subroutine*** a set of instructions designed to perform a frequently used operation within a program. In other programming languages it is called a function. There are two parts of a PBASIC subroutine. One part is the subroutine call. It's the command in the program that tells it to jump to the reusable part of code, then come back when it's done. The other part is the actual subroutine. It starts with a label that serves as its name and ends with a RETURN

command. The commands between the label and the RETURN command make up the code block that does the job you want the subroutine to do.

- **Tactile Switches** are *touch enabled* electromechanical *switches* for electronics often used in keyboards, keypads, instruments or interface control-panel applications.

- **Voltage** an electromotive force or potential difference expressed in volts.