

Approach to a project:

- 1. Design**
- 2. Build a small section**
- 3. Test it**
- 4. Continue to next section.**

Programming concepts and commands

Declaring variables

Counter VAR Word

Bit, Nib, Byte, Word (1,15,255,65535)

Declaring constants

delay CON 10

OUTPUTS:

Debug

DEC, CR, CRSRUP, HOME

HIGH n n=pin

LOW n n=pin

PULSOUT n,d

n=pin d=duration in 2microsecond units

INPUTS:

INn n=pin

DEBUGIN

PAUSE d d=duration in thousandths of a second
RCTIME Pin,State,Variable

LOOKUP index, [list],variable
FREQOUT pin, duration, freq {, freq2}

Loops

DO ... Loop

For ... Next

Conditional

If ... THEN ... ELSE...ENDIF

The Boe-Bot Book:

Chapter 1

Introductory material. We have covered all this in the WAM book.

Hint: You are responsible for this material.

Chapter 2: Servo Motors

In the WAM book we learned about standard servos.

(A) The width of the control pulses tell the servo what position to seek.

(B) The number of pulses controls how long the servo holds position.

Continuous Rotation Servos work differently!

(A) The width of the pulses controls the direction/speed of motion

(B) The number of pulses controls how duration of the motion.

Page 48:

Construct the two LED circuits described. Test them to be sure they work and then leave them on the board.

Page 58 Complete Activity 3

**SET JUMPER TO V_{in} - NOT V_{dd}
Use the Battery Pack, NOT the AC
adapter!**

Page 66 Complete activity 4. This is important for the future success of the Boe-Bot.

Finish the rest of the chapter.

Chapter 3

Building the Boe-Bot

Using the cycle

Build => Test => Continue

- 1. Build Chassis**
- 2. Add the Start/Reset Indicator**
- 3. Testing servo speed and coordination**

