for

- The for statement is used to repeat a block of statements enclosed in curly braces a specified number of times.
- An increment counter is often used to increment and terminate loops.
- There are three parts, separated by semicolons(;), to the for loop header:

```
for (initialization; condition; expression)

{

      doSomething;

}
```

- The initialization of a local variable, or increment counter, happens first and only once.
- Each time through the loop, the following condition is tested. If the condition remains true, the following statements and expression are executed and the condition is tested again.
- When the condition becomes false, the loop ends.

The following example starts the integer i at 0, test to see if i is still less than 20 and if true, increments i by 1 and executes the enclosed statements:

```
for (int i=0;  i<20;  i++)            // declares i, tests if less
than 20, increments i by 1

{

      digitalWrite(13, HIGH);     // turns pin 13 on

      delay (250);                // pauses for ¼ second

      digitalWrite(13, LOW);           // turns pin 13 off

      delay (250);                // pauses for ¼ second

}
```