# Sample Code – Counted Loop

```
var count : int              %create a counter

count := 1                   %set a starting value
loop
   put count
   count := count + 1        %increment the counter
   exit when count > 10      %set end value
end loop
```

# The For Loop

The counted loop is so common that a special type of loop was created to streamline the code.

```
for count : 1 .. 10
  put count
end for
```

Notes:
1. Do NOT declare the variable count.  The for loop will take care of that automatically

# Counting Down with a For Loop

When we count upwards, the counter is incremented (i.e., we add 1 each time).  It is also possible to count downwards by decrementing the counter.  In Turing:

```
for decreasing count : 10 .. 1
  put count
end for
```

# Example – Blast Off!

```
put "Begin Count Down..."

for decreasing count : 10 .. 1
  put count
  delay(1000)
end for

put "Blast Off!"
```

# Changing the Increment/Decrement

So far, we have incremented or decremented by 1. It is possible to take larger steps using the "by" command to specify the (integer) step size.

```
for count : 1 .. 10 by 2
  put count
end for


for decreasing count : 10 .. 1 by 3
  put count
end for
```

# Exercises

See additional exercises and extensions on the course wiki:

http://stevesweeney.pbwiki.com/Exercises+-+Intro+to+Counted+Loops