

Repetition Statements

- One of the reasons computer programs are great is because they can repeat stuff over and over again very quickly and effortlessly.
- These repetitions are referred to as *loops*
- The **while loop** is used to repeat a section of code **while** a certain ***condition*** is met.

while Loops

- A *while* loop has the following syntax:

```
while (condition)  
  
    { statement;  
    }
```

- If the *condition* is *true*, the *statement* is execute and the condition is tested again
- if still true, the statement is executed again
- The statement is executed repeatedly **until the condition becomes FALSE...Then program moves on to the next line in the program**

```
while (SensorValue (S1) > 45) condition
```

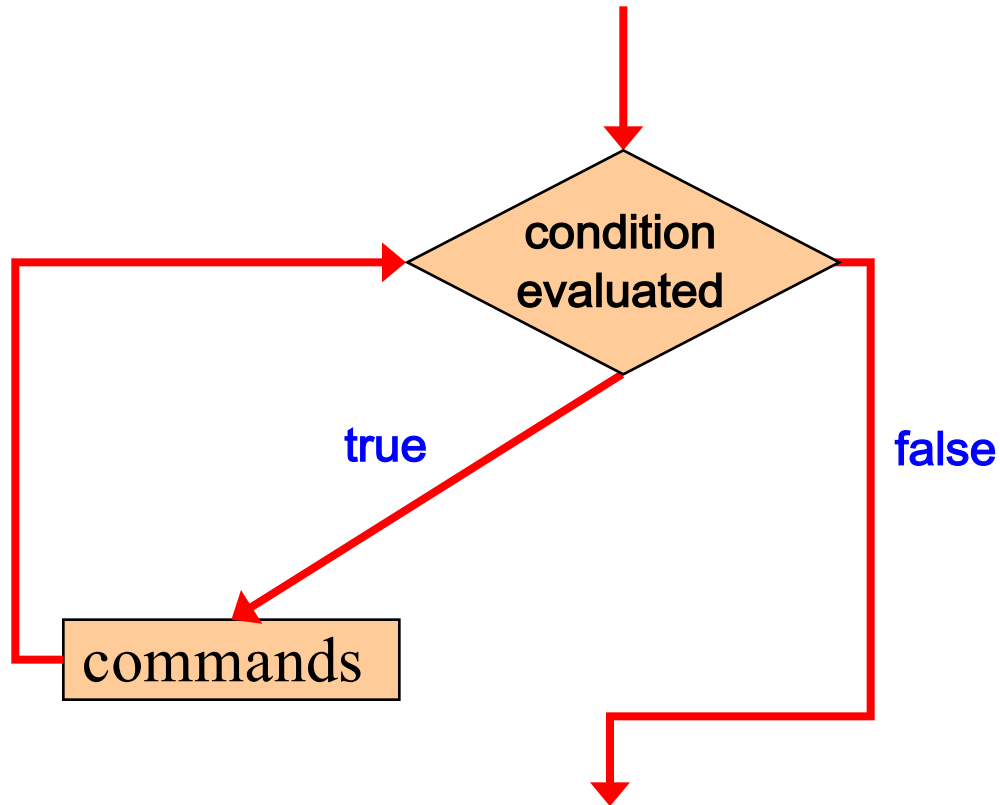
```
{  
  eraseDisplay(); statements
```

```
  count = count +1;
```

```
  nxtDisplayCenteredBigTextLine(3,"%d",count);
```

```
}
```

Logic of a while Loop



- If the condition of a `while` loop is false *initially*, the statement may never be executed
- How have we created an infinite loop in this class?

```
while (true)
{
    statement (do stuff);
}
```