

The while loop

Computer Programming 143 – Lecture 4

Structured Program Development II

Faculty of Engineering



The while loop (Robot car example)

```
#include <robot.h>
```

```
int main ()
```

```
{
```

```
// Turn 45° and move forward 50 cm
```

```
turn Five Deg ();
```

```
turn Five Deg ();
```

```
turn Five Deg ();
```

```
⋮
```

```
move Fwd Ten CM ();
```

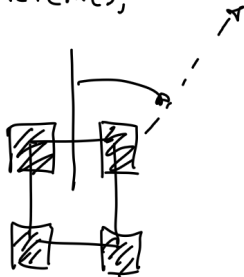
```
⋮
```

```
return 0;
```

```
}
```

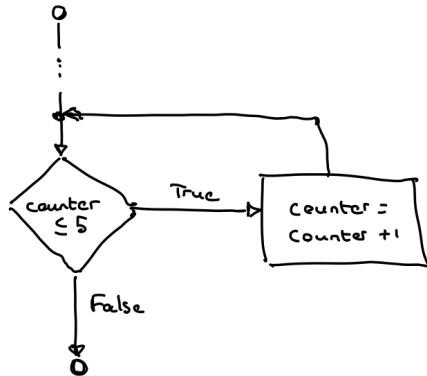
```
turn Five Deg ();
```

```
move Fwd Ten CM ();
```



The while loop

```
while ( condition )  
{  
    // keep on doing this as  
    // long as condition is true  
}
```



counter 1 2 3 10 11

grade 55 30

3.8 Counter-Controlled Repetition I

Problem statement

A class of ten students took a test. The grades (integers in the range 0 to 100) for this test are available to you. Determine the class average for the test.

3.9 Sentinel-Controlled Repetition I

Problem statement

Develop a class averaging program that will process an arbitrary number of grades each time the program is run.