

## Introduction to “*if-else statements*”

An “*if-else*” statements allows a computer to **make decisions**.

*if-else* statements **don't repeat like a while loop**, they just get the computer to do *one thing or another* based on some sort of information.

Look at the syntax and example below:

### Common syntax:

if (*condition*)

    {*Instructions or commands*

    }

else

    {*alternate instructions or commands*

    }

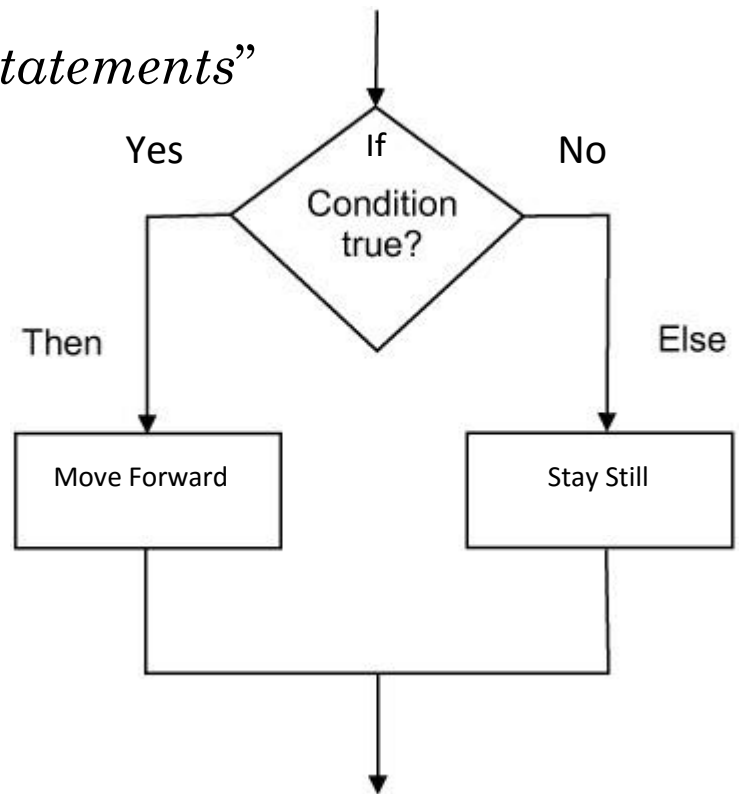
### Example syntax:

if (SensorValue[S1] == 1)

```
{
  motor[motorB] = 25;
  motor[motorC] = 25;
}
```

else

```
{
  motor[motorB] = 0;
  motor[motorC] = 0;
}
```



## Exercise #1

Examine with a partner what you think the following code will do. Be specific.  
Then enter the code, compile and download.

*You will have to activate the touch sensor and motors before you compile and download*

```
task main ()
```

```
{
```

```
    while (true)
```

```
    {
```

```
        if (SensorValue[S1]== 1)
```

```
        {
```

```
            motor[motorB] = 25;
```

```
            motor[motorC] = 25;
```

```
        }
```

```
        else
```

```
        {
```

```
            motor[motorB] = 0;
```

```
            motor[motorC] = 0;
```

```
        }
```

```
    }
```

```
}
```

## Exercise #2

Examine with a partner what you think the following code will do. Be specific.

Then enter the code (not the comments, compile and download.

*You will have to activate the touch sensor and motors before you compile and download*

```
task main()
{
  wait1Msec(=3000);      // Wait 3 seconds to let the robot initialize sensors.

  while(true)           // Infinite loop
  {
    motor[motorC] = 75;      /* Motors A and B are run */
    motor[motorB] = 75;      /* at a power level of 75 */

    if(SensorValue[S1] == 1) // If the Touch Sensor is touched (equal to 1)
    {
      motor[motorC] = -75;    /* Motors A and B are run */
      motor[motorB] = -75;    /* at a power level of -75 */
      wait1Msec(3000);        /* for 3000 milliseconds. */
    }

  }

}
```

Did you need an *else* statement here?

Look at the bracket and make sure each has a “partner”! Where is the end bracket for the taskmain ()? Where is the end bracket for the While(true) loop?