

<b>ID</b>		<b>Creation date</b>	May 24, 2009
<b>Platform</b>	S60 3rd Edition, S60 5th Edition	<b>Tested on devices</b>	Nokia N95, Nokia 5800 XpressMusic
<b>Category</b>	M	<b>Subcategory</b>	Sensor

**Keywords (APIs, classes, methods, functions):** accel

## Overview

This article shows how to retrieve accelerometer data in [m](#).

## Preconditions

**Note:** The `accel` module is only available in S60 3rd Edition and later.

## Source code

```
use accel

//Get the data for the 3 axes
values = accel.get()

//Display it
print "X: " + values["x"]
print "Y: " + values["y"]
print "Z: " + values["z"]
```

## Postconditions

The values from the accelerometer are displayed.

## Practical use: detecting shakes

As more and more devices are equipped with an accelerometer sensor it is becoming a frequent practice to make applications that respond to the user shaking the phone. The following code exemplifies how to implement such a feature.

It should be noted that, according to the `m` documentation, values returned by the `get` function vary from one device to another and are rather unstable. A great deal of tweaking should be done in order to ensure decent

## Retrieving\_accelerometer\_values\_in\_m

functionality.

```
use accel, math
```

```
while true do
  x = false;
  y = false;
  z = false;
  //Read the initial values
  values = accel.get();
  //Wait until one of the values changes by at least 140 points
  accel.new(140);
  //Acquire new values
  new_values = accel.get();
  //See which one changed
  if math.abs(new_values["x"] - values["x"]) >= 140 then x = true
  elsif math.abs(new_values["y"] - values["y"]) >= 140 then y = true
  elsif math.abs(new_values["z"] - values["z"]) >= 140 then z = true
  end;
  //Wait for the phone to return to the initial position (meaning approximately the same ac
  //with a margin of error and within a reasonable time interval (2000 milliseconds, for ex
  accel.new(120, 2000);
  //Acquire new values
  new_values = accel.get();
  //Check if the necessary one changed and if so, print the message
  if x = true then delta = new_values["x"] - values["x"]
  elsif y = true then delta = new_values["y"] - values["y"]
  elsif z = true then delta = new_values["z"] - values["z"]
  end;
  try
    if math.abs(delta) <= 50 then print "Shake detected!" end;
  catch exc by
  end;
end
```