

## Writing Mobile Apps for Investigative Study of Physics

### Assignment: Implementation of Mobile Apps for Investigative Study

Name	Event	Date
SHEK Yuk-fai		

<b>Target group</b>	<b>F.5 Physics students</b>
<b>Objective</b>	<b>To investigate the centripetal acceleration of a bus in motion</b>
<b>Mobile Apps</b>	<b>Accelerometer</b>
<b>Description of how to use the Mobile Apps for investigative study of Physics or Science subjects</b>	<ul style="list-style-type: none"><li>• Place a mobile phone with accelerometer horizontally on a bus in motion.</li><li>• Record the values and direction of the acceleration, and also speed of the bus when it is turning in a roundabout.</li><li>• Use google map to find the radius of the roundabout.</li><li>• Finally, to check whether the equation of <math>a = \frac{v^2}{r}</math> is true and find the direction of the centripetal acceleration of the bus.</li></ul>
<b>Expected learning outcomes</b>	Verification of the equation and direction of the centripetal acceleration
<b>Expected difficulties</b>	The values of the acceleration and speed may vary during measurement.