Mobile Augmented Reality Systems
Mobile Augmented Reality

An AR system may be defined as a system having the three following characteristics:
• combines real world objects and virtual objects
• is reactive or better interactive (objects with behavior)
• uses 3D positioning of virtual objects

Compositing System on Mobile OS

CCD
AR Applications

- Soundscapes & Games
- Cultural Heritage Tours
AR Applications

- Indoor-Outdoor Navigation Systems
AR Applications

- POIs Browser
- W3C Format for Point Of Interest

Layar

Junaio

WAM

ARGON

Wikitude
Localization

- Indoor: Accelerometers + Compass+ Gyroscopes + Map

- Models of Walking: static + dynamic (GPS, RFID, ...) calibration
AR VISUAL

Raptyr (Vuzix)
AR AUDIO
3D AUDIO POIs
<a2ml xmlns="http://wam.inrialpes.fr/a2ml">
  <cues>
    <cue id="piano1" begin="0" loopcount="-1">
      <chunk>
        <sound src="piano_loop.flac"/>
      </chunk>
    </cue>
    <cue id="piano2" begin="0" loopcount="-1">
      <chunk>
        <sound src="piano_loop.flac">
          <!--Phasing: playback speed to 95%-->
          <rate value="95000"/>
        </sound>
      </chunk>
    </cue>
  </cues>
</a2ml>
Autonomy Project (TPAC Demo)