

# Product Design Engineering: a unique course at Swinburne University of Technology, Melbourne, Australia.

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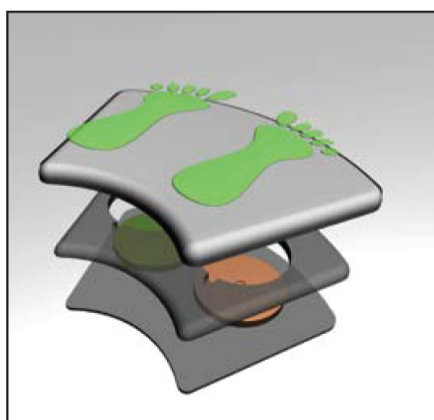
## Project Case Study: Musical Instrument for Hearing Impaired Children

This musical instrument involved researching and understanding acoustic theories and music therapy. This device allows hearing-impaired children to interpret music visually, feel music through vibrations and have the freedom to learn music.

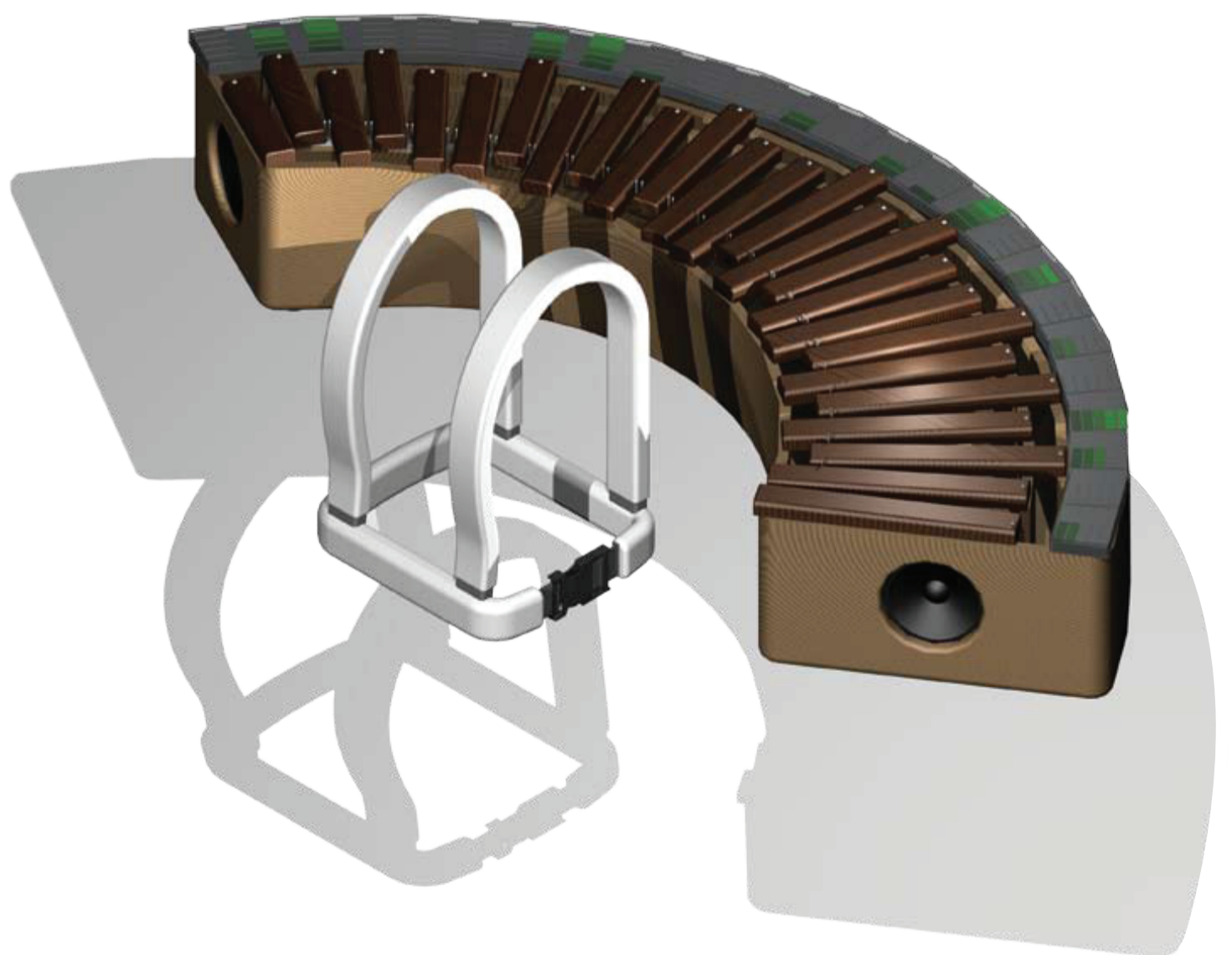
The 'pick-ups' detect the frequency that is transferred from the xylophone keys and conveys these signals through the amplifier. The microprocessor converts this single input into three different kinds of output. These signals are routed through the wireless system, which triggers the feedback on the individual components simultaneously.



Vest



Footrest



Sally Chen: Final year Product  
Design Engineering project.