



Experience the **MEZATOP** – Multitouch interactive surface

Built by Meirion Williams at City University London



The Mezatop is an interactive touch-screen tabletop computer built by Meirion Williams at City University London.

It features an 82cm cabinet-mounted screen, enabling several people to stand around it and interact together, using fingertips and hand gestures.

At the heart of the device is a regular Mac Mini computer, running on Microsoft Windows 7. Its interface is projected onto a touch-screen, made from a sandwich of acrylic sheets and tracing paper, using a standard data projector. An infra-red camera detects fingertips on the surface, with open source image processing software translating their position and movement into commands to the computer, enabling users to interact with it without the use of a keyboard or mouse.

The Mezatop allows you to fully utilise the benefits of multi-touch computing at a fraction of the cost of a commercial tabletop.

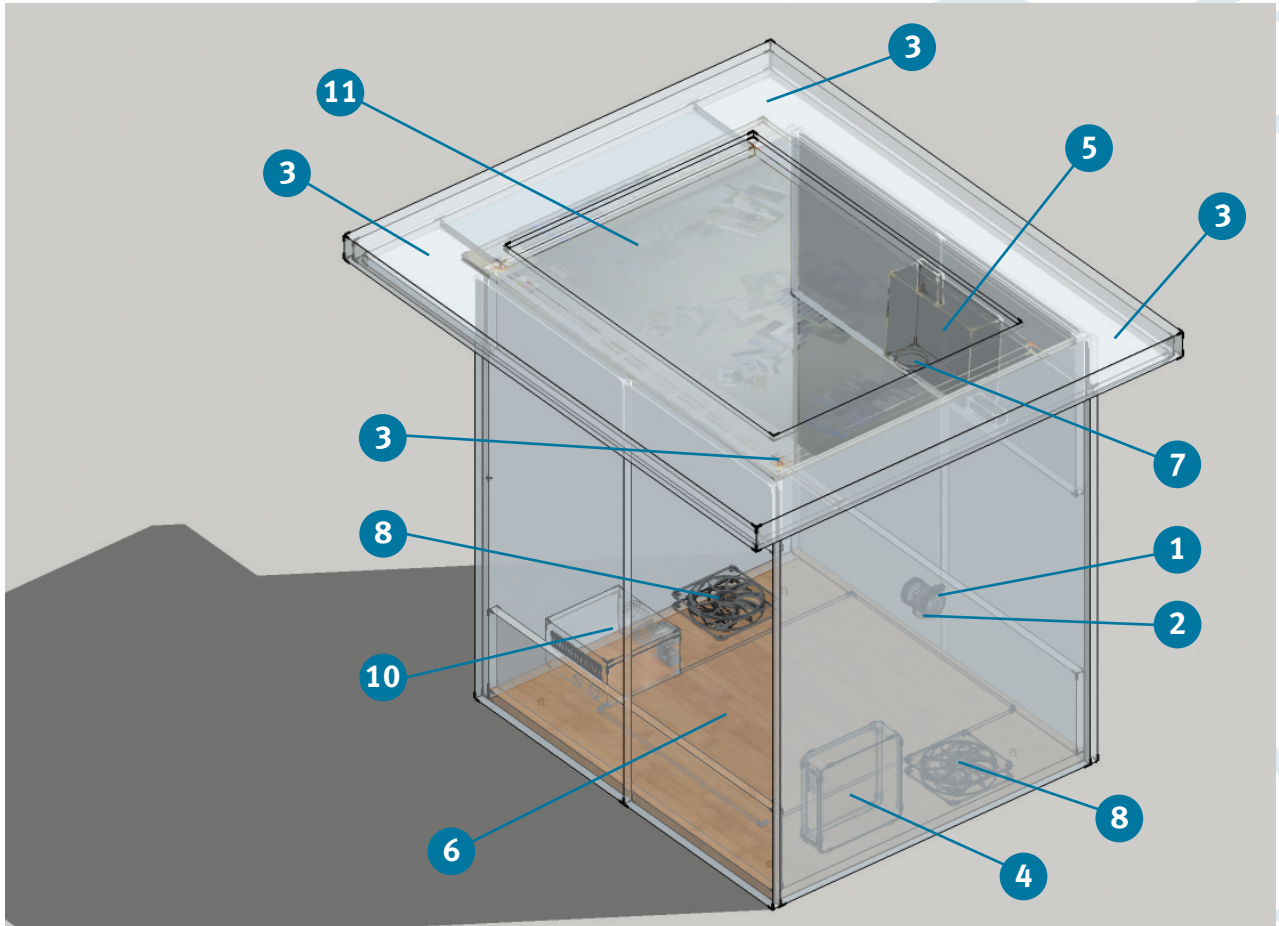
Features

- Multi-user, multi-touch finger tracking
- Recognises up to 511 touch-points simultaneously
- Free-standing self-contained unit
- 82cm flat screen
- Uses infra-red camera with laser illumination for finger tracking
- Runs Microsoft Windows 7 and open source vision software
- Simple design and construction
- Uses of the shelf available parts

Benefits

- Costs a fraction of a commercial multi-touch surface
- Runs a wide variety of multi-touch applications
- Compatible with multi-touch features of Windows 7
- Allows for experimentation with multi-touch software and hardware

Experience the Mezatop at Techfest 2010 and speak with its creator Meirion Williams



Parts list

Vision system

- Sony Playstation Eye camera ①
- 780nm IR bandpass filter ②
- 4 x 780nm IR 25mw laser diodes ③
- Apple Mac Mini ④

Projection

- Infocus IN10 Projector ⑤
- First-surface mirror ⑥
- IR blocking hot-mirror filter ⑦

Cooling and Power

- 2x 120mm fans ⑧
- Ducting
- ATX PC power supply ⑩

Screen

- 5mm clear acrylic sheet ⑪
- 5micron drafting film ⑪
- 3mm clear acrylic sheet ⑪

Case

- Plywood and chipboard panels

Software

- Microsoft Windows 7
- Community Core Vision 1.2
- Code Laboratories Playstation Eye driver
- Multitouch Vista driver