

## QUEEN'S BATON – VICTORIAN INNOVATION



### The State of creation

The key element to any successful modern economy is innovation. It generates new ideas and knowledge, in turn driving new products and services that can be exported globally.

The Victorian Government recognises this key factor and invests accordingly. In fact the Victorian Government invests more in science, technology and innovation than any other State Government in Australia.

### Part of Victoria's heritage

From the Bionic Ear to the black box recorder, Victoria has a long history of ground-breaking inventions that have changed the modern world.

These inventions are possible because of the people behind them and the ways they use ideas, technology and knowledge to create world-class products and services.

### Embodying Victorian innovation

The Queen's Baton developed for the Melbourne 2006 Commonwealth Games is a perfect example of why Victorian innovation is making a big impression on the world stage.

The world's first ever interactive, "web-cam", the Baton was designed and developed by a team of leading edge Victorian industrial designers, high-tech wizards and world-class machinists.





Created by award-winning Charlwood Design, the Baton blends a range of technologies, many of which are synonymous with the aviation and automobile industries with age-old casting processes.

With a 93 per cent Victorian content level, the baton showcases the breadth and depth of Victoria's industrial capabilities.

The Queen's Baton Relay is supported by the Australian Government.

## Companies involved in the creation and development of the Baton

**Charlwood Design** – founded in 1994 this Victorian industrial designer was responsible for the design and vision of the Queen's Baton. Other Charlwood Designs include the 'Personal Oxygen' dispenser used in polluted cities and the 'Go-Yo' racer toy.

**Rosebank Engineering Pty Ltd** – used by the Royal Australian Air Force (RAAF) to support precision mechanical systems on most weapon systems, Rosebank is the first Australian engineering company involved in NC manufacture, high precision grinding and aircraft servo-hydraulic flight control systems. The company precision machined the front of the baton.

**State Automation Pty Ltd** – Australia's premier lighting and stage automation company providing state of the art engineering solutions for entertainment and architecture globally, State Automation designed and manufactured the software and electronics for the LED light display within the Baton, including the Radio Frequency

Identification (RFID) thumb ring worn by the runners, as well as the lighting and circuit board technology.

**Arkk Silhouette** – with over 50 years' experience providing rapid prototyping and tooling services world-wide, Ark Silhouette produced the initial prototype model for the Baton. The prototype was built using stereolithography, laser-based technology that builds directly from CAD data to physically reproduce the design's intent. The final model was built using an advanced soft tooling technology known as rapid plastic with Arkk Silhouette also providing the plastic components for it.

**Décor Engineering** – founded 30 years ago, Décor Engineering created the first paint mask for car components. The company was responsible for vacuum metalising the gold on to the clear plastic frame of the Baton

**Hi Cam** – developed an incredibly light low powered, long distance transmitter and camera equipment housed within the Baton. The tiny technology Baton system, known as ProX 2, includes two 17 gram cameras, a 30 gram transmitter, circuit boards, two microphones and four rechargeable AAA batteries. Transmitted by satellite, vision taken by the cameras will be beamed directly to the Melbourne 2006 Commonwealth Games' website.

**Magnesium Technologies** – provided the magnesium to create the eye-catching 'spine-shaped' blade.

**Moonlight Laminating** – laminated the stand base to create a "surfboard-like finish."

**Multicoat** – provided the green paint finish.

**Osram Australia** – provided the 200 light emitting diodes (LED) lights.

**Special Patterns** – produced the form for the laminated stand base.

**The Industry Capability Network (Victoria) Ltd, (ICN)** – a non-profit organisation funded by the Victorian Government, ICN facilitates the involvement of local industry to maximise Victorian content in the Commonwealth Games such as the Queen's Baton as well as other major projects.

For more information visit  
[www.dvc.vic.gov.au/commonwealth\\_games](http://www.dvc.vic.gov.au/commonwealth_games)