

BOM (Birmingham Open Media) Digital Culture Awards



Title: Queen's Baton
Category: Data Driven

Background

BOM is proud to have led the technology development for the Birmingham 2022 Commonwealth Games Queen's Baton.

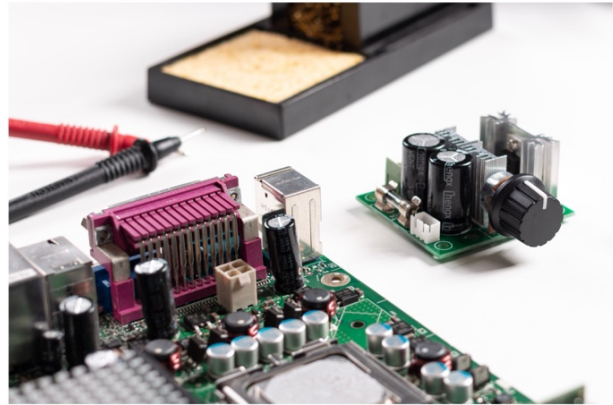
The Baton was conceived in an innovative West Midlands collaboration that fuses art, technology, and science. BOM led the cutting-edge technology development within the Baton. Product designers and engineers Raymont-Osman, Product Design and development specialists Kajul, both based in rural Warwickshire, along with Coventry-based Maokwo, headed up by artist Laura Nyahuye, each injected their creativity and expertise into the Baton.

Karen Newman, Founder/Director of BOM, said: "BOM is proud to have developed the technology for the Birmingham 2022 Queen's Baton, the first true 'smart Baton'. By incorporating meaningful

technologies into the design, we can celebrate grassroots innovation happening right across the Commonwealth, and give a platform to those driving change within their communities. Working with our partners at the University of Birmingham, the Baton will also spark important discussions around pressing environmental issues which call for global action.”

Influenced by her Zimbabwean heritage, artistic skills, activism and community engagement work, Laura brings her passion for tactile and non-precious materials, coupled with the influence of young voices, and lived experiences to the design of the Baton. Using a multi-medium approach, Laura and a team of young creatives at Maokwo explored themes of the meaning of the Commonwealth, sustainability, the strength and fortitude of women within Commonwealth communities which directly influenced the Baton’s design and concept.

The Baton’s Technology



Enhanced with cutting-edge technologies, the Baton will capture data and stories from across the Commonwealth, shining a spotlight on grassroots innovation and celebrating the people driving change within their communities. The Baton features LED lighting and a heart rate sensor that display

the heartbeats of Batonbearers. The lighting also changes when two people grip the Baton during handover, celebrating collaboration and the sharing of wisdom between young and old. In a time where human contact has been limited, the Baton addresses how connections matter more than ever.

As well as an illuminated heartbeat, the Baton also has 'lungs', consisting of atmospheric sensors with laser technology that analyses the environmental conditions wherever it is in the world. Augmented Reality (AR) will be used to creatively visualise the data captured throughout the journey to invite more awareness of and conversations around air quality across the Commonwealth. The data will contribute to the ongoing research projects being conducted by atmospheric scientist Professor Francis Pope and his team at the University of Birmingham.

Fitted with a 360-degree camera, the Baton also has 'eyes', and a 'brain' which records and transmits imagery and digital information, allowing stories from Commonwealth communities to be told. GPS technology allows the Baton to be tracked on its travels.

The Baton's Form



The shape of the Baton moves away from the traditional shape seen in previous editions of The Queen's Baton. With Birmingham 2022 making history by being the first major multi-sport event to award more medals to women than men, the strength and fortitude of women across the Commonwealth is celebrated throughout the design of the Baton.

Lining the length of the Baton is a platinum strand, paying homage to The Queen in her Platinum Jubilee year, as well as celebrating her role as the Head of the Commonwealth.

To represent the bronze, silver and gold medals that athletes will be competing for, the Baton has been cast using accessible, non-precious metals of copper, aluminium and brass. By using aluminium forged using the traditional method of lost wax casting in Birmingham's Jewellery Quarter, the Baton has used the centuries of local expertise and craftsmanship that gives Birmingham its reputation as the city of a thousand trades.



Dame Louise presenting HM The Queen with the Baton at Buckingham Palace, 7 October 2021



Easy the Chimpanzee at the Ngamba Island Chimpanzee Sanctuary, Uganda



Young Baton Bearers in Uganda