



## Job Description/Person Specification

### 1. Post

Post:	Raspberry Pi Developer		
Contract:	Initial fixed-term contract (12 months)		
Hours:	5 days per week, 36 hours per week. Some evening and weekend work required		
Salary:	£30,000 – £35,000 pro rata, per annum. Depending on experience	Dates:	From November 2020
Benefits:	Access to company pension scheme 28 days holiday including public holidays		

#### About BOM

Established in 2014, BOM is a non-profit centre for art, technology and science dedicated to creative innovation with purpose.

Located in central Birmingham, less than one minute's walk from New Street Station and the Bullring, our gallery is free to enter and presents cutting edge digital artworks and exhibitions that spark debate about technology and scientific progress.

BOM is dedicated to positive social impact in all that we do. Our exhibitions and events explore topical issues in digital culture and science which impact on human lives. Our education work engages excluded children, young people and adults in creative technology programmes, with a particular interest in neurodiversity and technology.

BOM is born from hacker culture. But unlike other hackspaces that are filled with tools and operate on a membership model, our building is publicly accessible with free exhibitions and events.

At the heart of BOM is a community of Fellows, a group of hugely talented artists, scientists and technologists, who use our studios and co-working spaces to develop innovative and impactful work. The BOM Fellows all fuel, and are fuelled by, BOM's ethos and help us achieve our mission.

#### About the Role

BOM has secured a partnership with a high profile, major sporting event to create a ceremonial sporting smart device.

The Raspberry Pi Developer post is a brand new role which will play a key part in delivering this project. Although advertised on an initial 12 month contract, it is hoped that this would extend to a permanent role within our growing team.

We are seeking someone to work within our technical team to develop digital prototypes and find creative digital solutions for art projects. This will include a major project detailed below, but may also include working on websites, working on immersive (AR/VR) content, developing mobile applications and contributing to other similar smaller projects.

Specifically, we are looking to employ someone who can help work on an electrical device which uses a Raspberry Pi computer and Python scripts to read data from sensors over Bluetooth. This data will be used to drive LED lights and transmit data over wifi to a website. It needs to be reliable, thoroughly tested, run remotely on batteries and be able to work over long periods unaided with irregular connectivity.

Excellent programming skills and some experience working with electrical components are essential. Strong debugging and troubleshooting skills are important. A background of working with prototypes or product design is an advantage.

You should be someone who can work independently and in tune with our enthusiastic creative team. Although this post is specifically for a Raspberry Pi Developer, you must be eager and willing to work on a range of potential technology platforms and creative technology projects.

## 2. Supervisory responsibilities / position in structure

Responsible to:

Reports to the Director

Reports to the Director and works closely with the Digital Producer. No supervisory responsibilities are required.

## 3. Main duties

### Duties/Responsibilities

- Work alongside the Digital Producer to deliver BOM's technology projects
- Develop Python software to run on Linux hardware (Raspberry Pi) to receive and process data via Bluetooth from electrical sensors (including a Polar Heart Rate monitor)
- Develop Python and basic web software to collate, transmit and view data online
- Archive and maintain code using version control systems (GIT)
- Improve and test Raspberry Pi prototypes including bug fixing code and electrical troubleshooting
- Test and troubleshoot electronic devices such as 360 cameras, Air Quality sensors and GPS trackers
- Supply suitable technical documentation and training
- Support BOM's staff, associates and exhibitions with occasional technical skills

## 5. Requirements to carry out job

Essential or desirable indicated against each requirement	E	D
Person Specification		
<p><b>Essential:</b></p> <ul style="list-style-type: none"> <li>• Excellent programming skills using high-level languages (in particular Python) including strong debugging and troubleshooting skills</li> <li>• Good knowledge of digital communications such as Bluetooth/Wifi and the methodologies around sending and receiving data</li> <li>• Electronics experience with electrical components such as controlling LED lights</li> <li>• Experience using microcomputing platforms such as Raspberry Pi</li> <li>• An ability to work independently as well as work well with others within an open-minded creative team</li> <li>• Be diligent, courteous and dependable</li> </ul> <p><b>Desirable:</b></p> <ul style="list-style-type: none"> <li>• Experience with Linux (Bash, Systemd etc.)</li> <li>• Web development programming skills such as CSS, HTML5, Javascript, PHP</li> <li>• Experience developing Android and iOS applications for mobile devices particularly using languages such as Java or software such as Android Studio, Unity etc.</li> <li>• Experience with version control systems such as GIT</li> <li>• Product or industrial design experience</li> </ul>	<p>√</p> <p>√</p> <p>√</p> <p>√</p> <p>√</p> <p>√</p>	<p>√</p> <p>√</p> <p>√</p> <p>√</p> <p>√</p>

## 5. How To Apply

Please email us your CV and a covering letter (no more than 2 sides of A4) to [info@bom.org.uk](mailto:info@bom.org.uk) setting out:

- Why you are interested in this role
- How your skills and experience meet the Person Specification

BOM is committed to access and inclusivity. We particularly welcome applications from disabled people and those from Black, Asian and minority ethnic backgrounds.

If you would like to apply using a different format to the above for access reasons please contact us at [info@bom.org.uk](mailto:info@bom.org.uk) and tell us what would work best for you.

Application deadline: Friday 23 October 2020, 12pm

Interviews will be held on Friday 30 October 2020