Role Definition

Job Title: Design Systems Analyst — Robotics (SMG)
Reporting to: Head of Specialist Modelling Group ("SMG")

Responsibilities

- Conduct applied research and development in support of the Company's objectives.
- Conduct applied robotics research and applications in architectural design in all scales.
- Maintain and advance state of the art knowledge of robotic processes integrated with computational methods and computational design
- Lead dissemination of robotic methods to facilitate architects and designers workflows.
- Develop robotic computational workflows to solve complex, multi-disciplinary design problems.
- Develop tools and methodologies to enable generalise robotic use and application in diverse design processes.
- Liaise with other support groups to ensure development, integration and applications on wider Foster + Partners design systems processes.
- Advise and support project teams at all stages of design and construction of relevant integration and application of methodologies to resolve design and fabrication challenges.
- To contribute, or otherwise assist as required.

Qualities and Skills

Essential

- _ Able to demonstrate ability to undertake the above responsibilities.
- Have an Industry recognised diploma or degree in an Architectural, Engineering or Computer Science related field or equivalent relevant experience
- Specialist in one or more of the following areas: architecture, structural engineering, computational design, complex geometry, simulation and optimization, human computer interaction, computer graphics, innovative fabrication and construction, ubiquitous computing (including the Internet of Things), cognitive computing and artificial intelligence, interactive application development
- Experience in robotics and robotic fabrication.
- Expert in a range of software supporting the above areas
- Hardware design development experience
- Great communication skills to convey complex problems and the ability to work and collaborate in multi-disciplinary team dynamics.

Desirable
- Operate in the realm of architectural design and construction at any scale.
- Digital skill set including computational and parametric design as well as interest in the manufacturing and construction of complex geometrical forms.
- Software experience includes but is not limited to Rhino, Grasshopper, KUKAprc and ROS.
- Programming languages experience includes but is not limited to Java, Python, C# and experience with development of robotic tools and plugins;
- Hardware design development experience include but is not limited to hardware and software for specialised end-effectors.