PROJECT SHEET

Project: Robotics Living Lab
Client: Manchester Metropolitan University
Contract Value: £939k

In 2025 City Build constructed a pioneering low-carbon pavilion for Manchester Fashion Institute's Robotics Living Lab at Manchester Metropolitan University.

Designed by Bennetts Associates the Work in Progress Pavilion provides designers and manufacturers with a base from which to create more sustainable fashion manufacturing with the aid of robotic technology. The building comprises both active production areas and exhibition spaces, providing a flexible environment for research, experimentation and display.

Occupying an underutilised courtyard behind the university's listed Righton Building, the single-storey structure provides a new focal point for the campus. The interior is organised around a central open-plan space, encouraging collaboration and allowing for reconfiguration as and when it is needed. Generous Floor-to-ceiling windows create a sense of openness and connection to the newly landscaped courtyard, while also ensuring excellent daylighting.

The project champions UK-based materials and construction methods as a means of reducing upfront embodied carbon. Passive environmental controls reduce energy consumption for ventilation and cooling. A partially exposed Douglas fir timber frame is combined with straw-insulated wall panels. The latter are designed lock away captured carbon within a much shorter timescale than traditional sequestering materials. They also help to regulate the internal environment throughout the year. Overhead, a striking timber waffle soffit introduces a

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rhythmic, expressive quality to the space. The exterior is clad with charred larch panels, chosen for their durability and resilience.

The pavilion achieves a biogenic carbon figure of -340 kgCO2e/m² GIA, aligning with the Net Zero Carbon Building Standard's Higher Education targets for 2030. It also follows circular economy principles, ensuring that many of its components can be disassembled and repurposed in the future. As part of the NZCBS Pilot Scheme, a post occupancy evaluation is underway to assess long-term performance.

Susan Postlethwaite, Professor of Fashion Technologies, said: "This launch is the culmination of years of planning, collaboration and research, and I'm delighted to showcase the important work of the lab inside this beautiful structure".