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DRONES SPRAY BIOMATERIALS TO IMPROVE CONSTRUCTION PROJECTS

 COMPUTING & TECH

The next step for automated workforces in construction could be these innovative drones

Spotted: Construction companies are using various forms of technology to make their tasks easier and more efficient. For example, Springwise has spotted such innovations as [autonomous robot dogs](#) and [pop-up robot arms](#) that act as aids for construction. Now a French architect is utilising drones with spraying hoses to foster more sustainable techniques for housing construction.

Stephanie Chaltiel of [Boisbuchet](#) has spent years researching innovative construction methods that have led to her current use of drones. The drones are equipped with spraying hoses that can apply layers of biomaterials to light structures. Architects or construction workers create these base structures, and the drones finish the job. The process is ideally suited for lightweight or temporary structures. Using this method avoids the need for scaffolding or heavy machinery, cutting down construction time massively.

The technology is also highly portable. Luggage cases can transport the drones and the spraying pumps travel on wheels. Such easy transportation makes the entire process more sustainable, economical, and reduces the manpower required on site. The sprays are capable of ejecting various mixtures of different natural ingredients (so-called 'bioshotcrete'), ranging from mud and clay to lime sands and oils. Different combinations can layer together on the structures to provide different drying times and textures. These processes eventually come together to form stable exterior facades that hold everything together.

In the future, Chaltiel hopes to use sensors together with the drones so they can control material density in the field. Artificial intelligence onboard the drones could also be an exciting development to help them make repairs independent of a coordinator.

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Takeaway:

With a large number of workforces taking on robotic or automated machines instead of human labourers, the face of construction could change in the near future. How might the incorporation of drones further deepen this evolution?