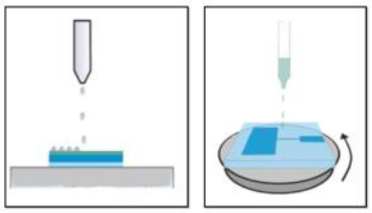
PROJECT NUMBER

24231

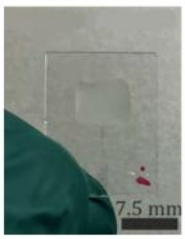
Drop-on-demand manufacture of optically transparent antenna

Precise on-demand positioning of nematic liquid crystal material for use as optically transparent antenna or sensors.

Applications: 5G or 6G, display screens, smart technology



Precise on-demand positioning of nematic liquid crystal material for use as sensors or antenna or both.



Features	Benefits
Drop-on-demand unique manufacturing	Fast and precise manufacturing method devised by the team that reduces waste
Transparent liquid crystal materials	Antennas formed are also transparent and can be implemented in any devices that include a display or screen to meet the ever-growing demand for increased connectivity capability
Controllable operational frequency	Avoids congestion and improves communication quality
Liquid crystal materials can be designed to respond to temperature	Allows the antenna to perform a dual use across both sensing and comms

Awaiting patent and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

The above information is provided ‘as is’ without conditions or warranties. Oxford University Innovation makes no representation and gives no warranty that it is the owner of the intellectual property rights in the technology described. © Oxford University Innovation Ltd 2026, Buxton Court, 3 West Way, Oxford, OX2 0JB.