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COBRA: INDUSTRIAL TO MEDICAL SURGERY

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The Rolls-Royce University
Technology Centre (UTC) in
Manufacturing and On-Wing
Technology was established in
1999 as part of the
Rolls-Royce UTC network.

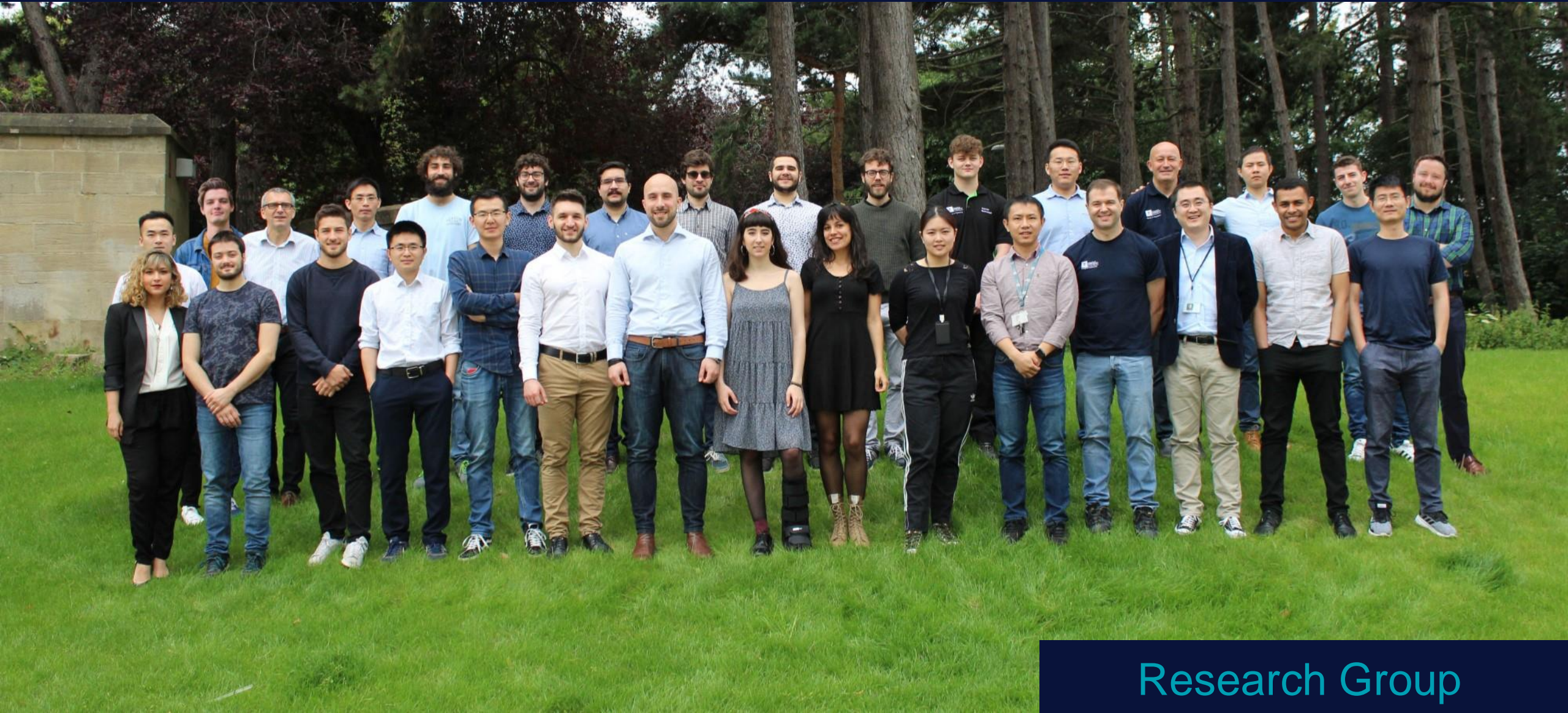


Based in the Manufacturing
Research Division of The
University of Nottingham...



Our team is comprised of...

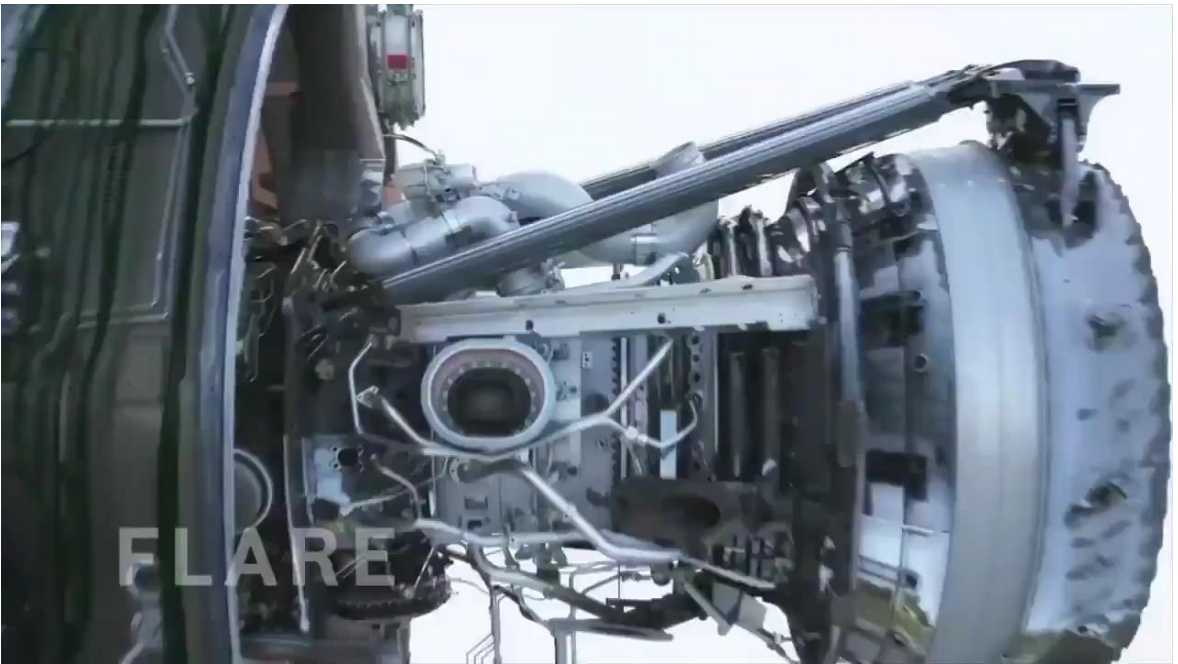
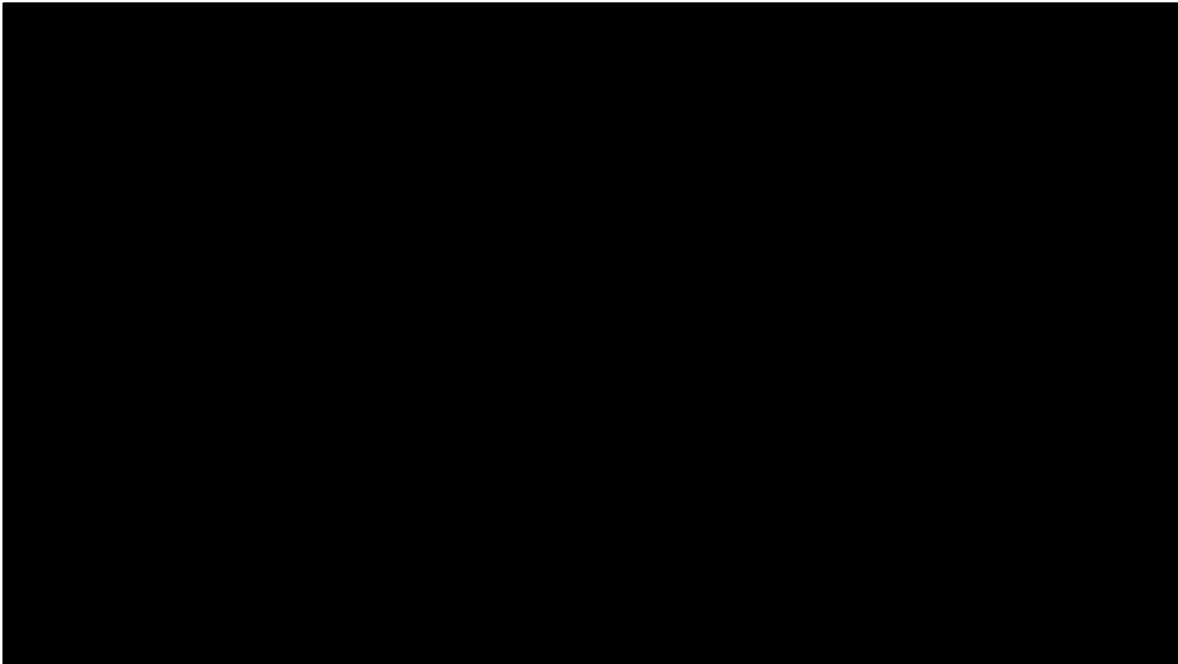
1 research coordinator
5 research assistants



Research Group



Continuum Robots for In-situ Inspection





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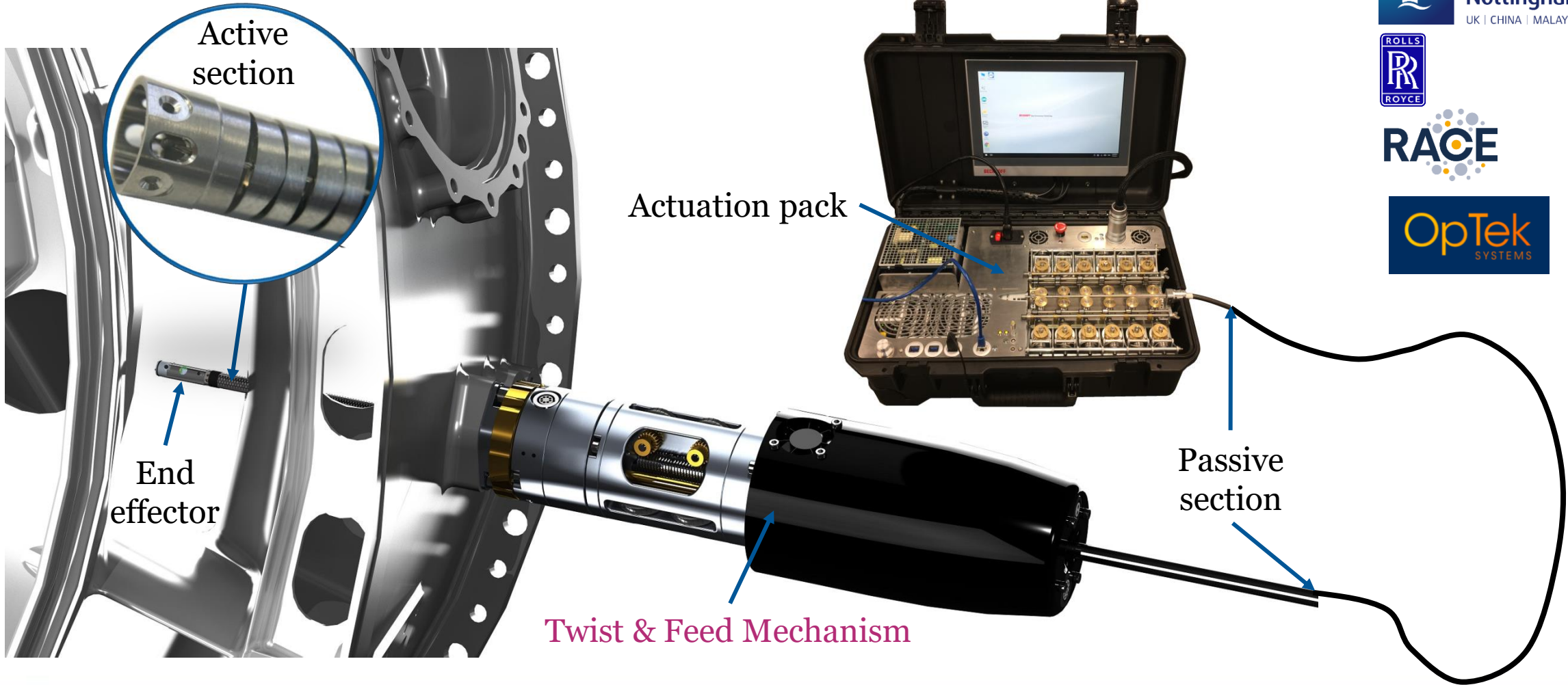
COntinuum roBot for Remote Applications

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- COBRA – *C*Ontinuum ro*B*ot for Remote Applications
 - InnovateUK project – (£1.9m gross) – 2018:2021
 - Long thin remotely controlled snake robot with laser repair capability



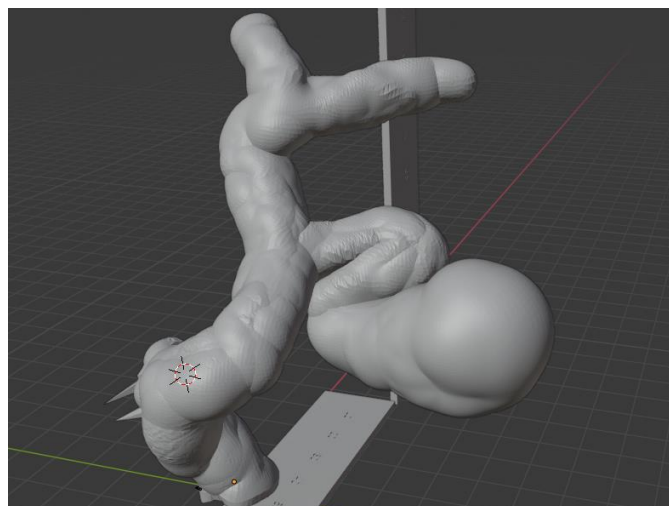
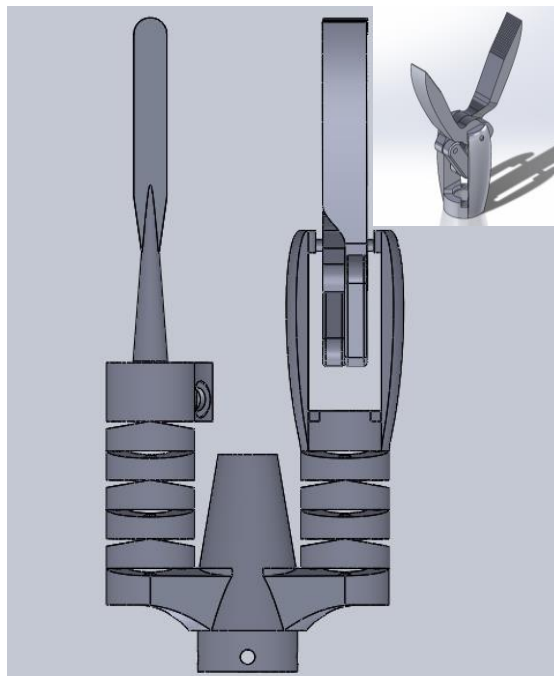


COBRA



NEW DESIGN: Main changes

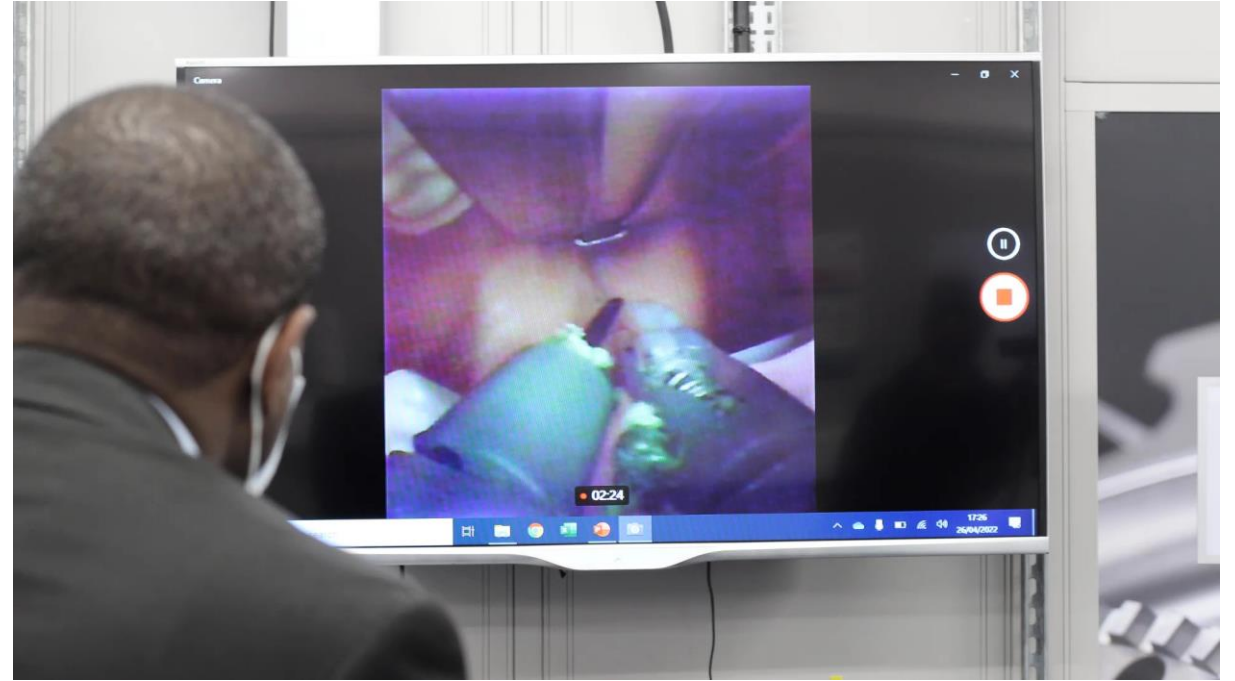
- We have adapted the robot to medical application by designing end-effector with two small snake-like sections (tweezers and hot wire cutters) and miniaturized camera.
- Dr Olaleye, Consultant Head and Neck Surgeon at University Hospitals of Leicester, has conducted several initial evaluations on a throat of a dummy patient.
- Now, we working toward using the robot in bile duct imaging in collaboration with QMC, NHS.





From Industrial Repair to Medical Intervention

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THANK YOU

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