Construction robots | Photo source Pixabay

TINY ROBOTS REDUCE ROADWORK DISRUPTION

PROPERTY & CONSTRUCTION

The small size of these construction robots could negate the need for road disruption during pipe repairs.

Spotted: Construction is an industry notorious for its lengths and often inconvenient effects. The incorporation of technology often seeks to diminish this, with drones assisting in building lightweight structures and robots constructing scaffolding. Now tiny robots could drastically improve one of Britain's most well-known nuisances: roadworks.

£26.6 million (€30.8 million) in funding from the UK government's modern Industrial Strategy has been allocated to develop microrobots. Their aim is to be able to fix underground pipes. Such repairs often result in the above roads closing down entirely, to allow for digging up the ground to access the pipes in question. At the moment, 1.5 million road excavations take place, costing the public over €5.8 billion every year. It will also help reduce workplace incidents, for the robots can enter hazardous environments instead of humans. Not only will the robots be able to make repairs and carry out regular maintenance, but also inspect oil and gas pressure vessels and offshore wind turbines. They are versatile and there are flying and underwater versions, and so they can adapt to various environments.

Four British universities will combine their intellect to develop 1 centimetre-long robotic devices, using €8.1 million of the government investment. These devices will use sensors and navigation systems to find and mend cracks in pipes. A further 14 projects will take a further €22.7 million of the investment. These will likely send robots to offshore wind-farms and nuclear-decommissioning facilities. Such areas are deemed too hazardous for humans workers. Researchers will also test new

technologies as part of the scheme, ranging from the use of AI software on satellites, to the potential implementation of drones in oil pipeline monitoring.

22nd January 2019
Website: www.gov.uk
Contact: www.gov.uk/contact

Takeaway:

Micro robots are an innovative means of alleviating the strain of construction projects on those nearby. Bulky machines are not only a nuisance, but often financially and environmentally inefficient as well. Could such developments as this pave a way for a whole new face of construction in the future, one that is better for both the public and the construction companies themselves?