

# Science Focus

How AI could help  
**THE PARALYSED WALK AGAIN**

The truth about  
**TARGETING BELLY FAT**

The science behind  
**THE THREE-BODY PROBLEM**

## UNDERSTANDING **SOCIAL ANXIETY**

WHY THE PLANET'S MOST SOCIAL SPECIES  
STRUGGLES WITH HUMAN INTERACTION

**PLUS** Simple strategies to break the cycle



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ESTEC CENTRE,  
THE NETHERLANDS

No, this isn't a new form of curling. Yes, engineer Jules Noirant is wielding a broom on what looks like an ice rink, but what he's doing is more high-tech than sweeping the path of a granite stone. Noirant is using the broom to nudge a satellite simulator platform, in order to test its guidance, navigation and control system as it floats on a cushion of air over Europe's flattest floor.

The 45m<sup>2</sup> (485ft<sup>2</sup>) floor – or rather, the Orbital Robotics Bench for Integrated Technology (ORBIT) – at ESA's European Space Research and Technology Centre (ESTEC), has been designed to simulate space, albeit in two dimensions. By keeping the floor meticulously clean, the researchers can see how tech responds in a weightless and frictionless environment.

Think of it like a giant game of air hockey, but in reverse. The puck (in this case the simulated satellite) shoots air down onto the air hockey table (the super-flat, super-clean floor). By poking it with a broom, engineers can send the satellite scooting across the smooth surface and see if its guidance system can correct itself when it's nudged off course.

ESA

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