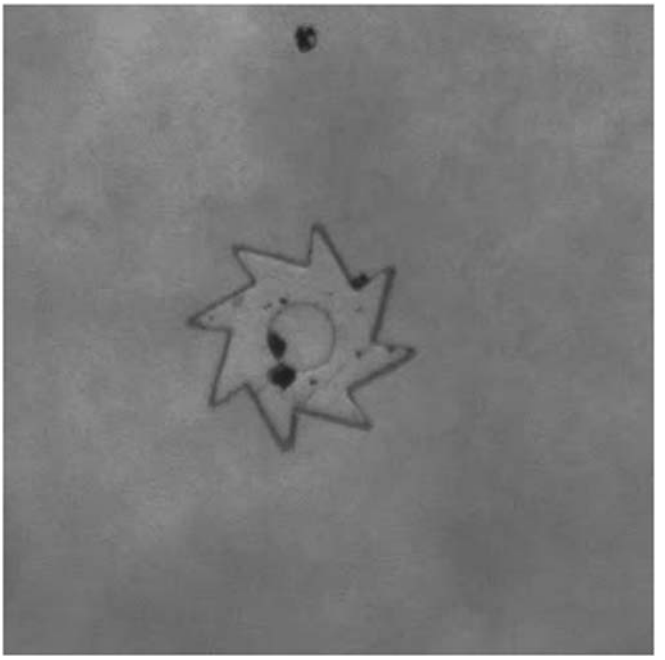
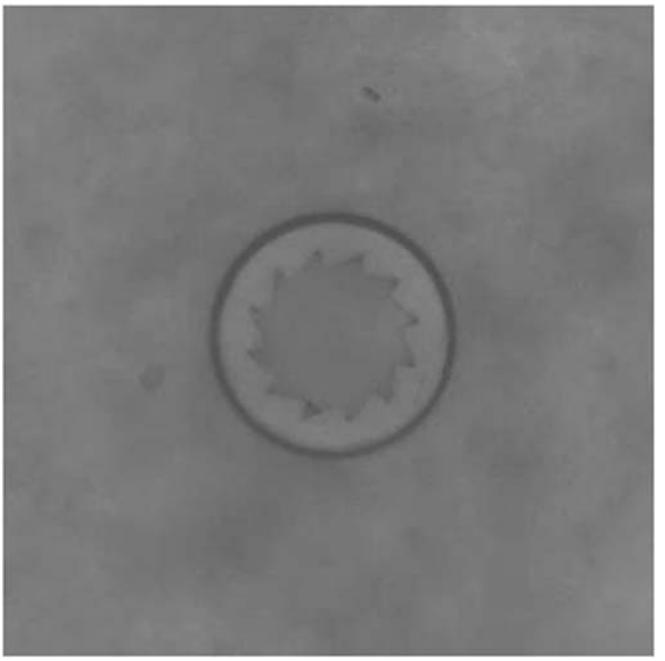
Supporting Information

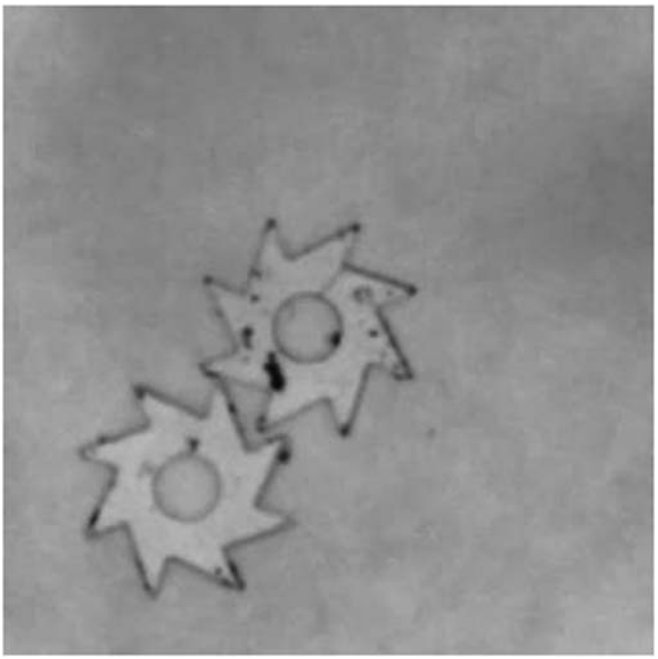
Sokolov et al. 10.1073/pnas.0913015107



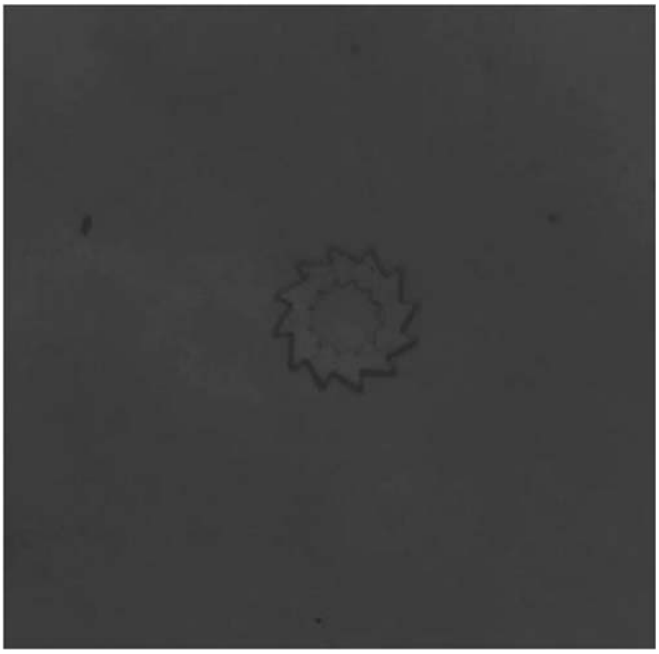
Movie S1. Rotation of a gear with eight external teeth, concentration of bacteria was 2×10^{10} cm^{-3}, the film thickness was 200 μm, and video frame rate 2 frames/sec (15 times faster than real time).
Movie S1 (MOV)



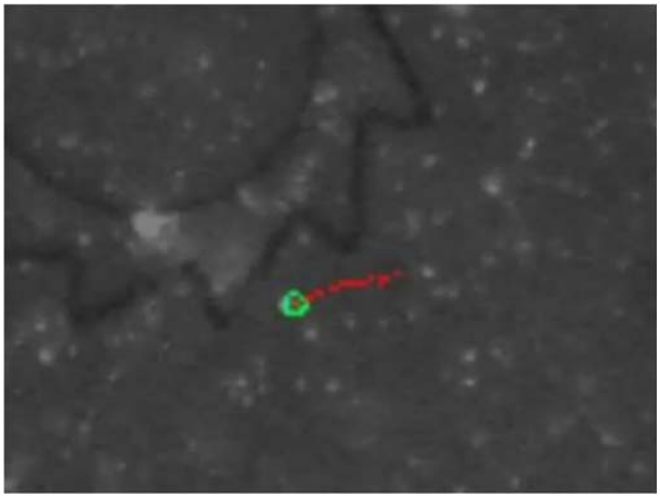
Movie S2. Rotation of a gear with 12 internal teeth, concentration of bacteria was 2×10^{10} cm^{-3}, video frame rate 2 frames/sec (15 times faster than real time).
Movie S2 (MOV)



Movie S3. A system of two engaged gears rotating in opposite directions, concentration of bacteria was 2×10^{10} cm^{-3}, and video frame rate 5 frames/sec (six times faster than real time).
Movie S3 (MOV)



Movie S4. Speed control. The gear with external and internal teeth rotates when bacteria are exposed to air or oxygen but halt when the chamber is filled with nitrogen, concentration of bacteria was 2×10^{10} cm^{-3}, and video frame rate 5 frames/sec (six times faster than real time).
Movie S4 (MOV)



Movie S5. The tajectory of an individual fluorescent tracer (2.5 micron polystyrene sphere) in the vicinity of gear's tooth, video frame rate 10 frames/sec (three times faster than real time).

Movie S5 (MOV)