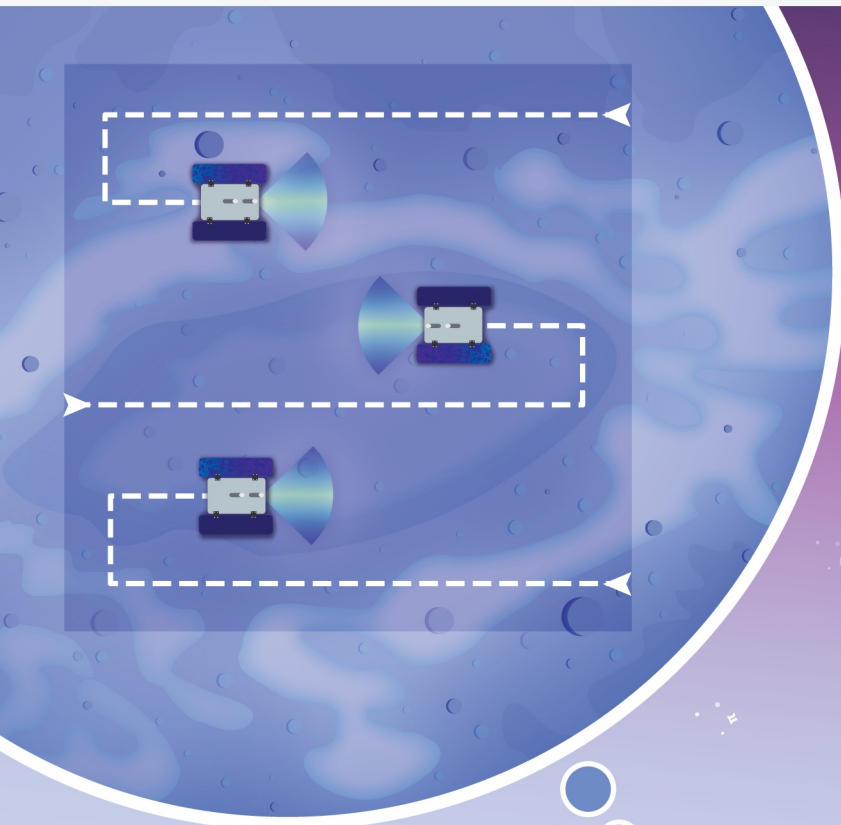




π IN THE SKY¹¹

Measure the driving distance for a team of lunar rovers. It's possible with pi!

EXPLORE MORE: go.nasa.gov/PiDay



MOON MAPPERS

NASA's CADRE project is made up of a network of three small rovers. The rovers are designed to work together to create a 3D map of a scientifically intriguing area of the Moon's surface known as Reiner Gamma. Communicating with each other and a base station aboard a lunar lander, the rovers will be largely autonomous, making decisions and acting without the need for constant human intervention.

Each suitcase-size rover has a field of view that is about $\pi/2$ radians wide, and its sensors can accurately map as far as 2 meters ahead. Assuming the rovers drive in a "lawnmower" pattern, how far does each rover have to drive to survey its portion of a 20 m x 20 m square of the Moon's surface?

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