SHRINKING THE TELESCOPE

SPIDER (Segmented Planar Imaging Detector for Electro-optical Reconnaissance)

HOW IT WORKS

Conventional Telescope vs. SPIDER

Light

Lens

Photonic Integrated Circuit (PIC)

Image

Conventional telescopes take years and a lot of labor (polishing glass, precision alignment, etc.)

SPIDER’s PICs could be printed with lasers in just a few weeks

EFFICIENCIES

Up to 99% savings

Low Size + Weight

Energy-Efficient

Scalable + Reconfigurable

HOSTED PAYLOAD

Low-cost access to space with smaller launchers and payloads

MIRROR PRODUCTION TIMELINE

Conventional Telescope

SPIDER

WEEKS VS YEARS

Multiple Potential Applications

Safety Sensors

Automobile

Reconnaissance and Targeting Instruments

Aircraft

Helicopter

Maritime

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