Title: MEMS-based Hybrid Beam Steering for LiDAR

Invention: Researchers at the University of Arizona have developed an advanced LiDAR technology that combines MEMS and DMD technologies in a novel way. The system is more compact with a larger field of view, and can track objects at a further distance, or at a closer range with finer resolution for applications in factories and warehouses.

Background: Currently available LiDAR sensing for autonomous vehicles space suffer from too narrow a field of view, thus requiring mechanical scanning, as well as being bulky and expensive. Smaller systems have not been able to achieve the distance requirements needed for autonomous vehicles. There is a need in the art for LiDAR systems to become more compact, have larger fields of view, and detect objects at greater distances.

Applications:
- Environmental mapping
- Autonomous vehicles
- Industrial metrology
- Robotic guidance in manufacturing
- Remote sensing

Advantages:
- High resolution
- Wide field of view
- Fast and compact

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