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ASTM International Technical Committee F45 on Robotics, Automation, and Autonomous Systems

SCOPE

The development of standardized nomenclature and definitions of terms, The scope of the committee shall be the development of standards for industrial/commercial robotics, automation, and autonomous systems (i.e.: terminology, practices, classifications, guides, test methods, and specifications). These standards are applicable to, but not limited to, automatic/automated/autonomous vehicles, robotic arms/manipulators, and the sensors used in these systems; for smart infrastructures, advanced manufacturing, logistics and other automation.

TECHNICAL SUBCOMMITTEES

- **F45.01** Environmental Conditions and Effects
- **F45.02** A-UGV Docking and Navigation
- **F45.03** A-UGV Object Detection and Protection
- **F45.04** System Communication and Interoperability
- **F45.05** Grasping and Manipulation
- **F45.06** Legged Robot Systems
- **F45.07** Applications
- **F45.90** Executive Subcommittee
 - **F45.90.01** Research & Development
 - **F45.91** Terminology

KEY DOCUMENTS

- F3200** — Standard Terminology for Robotics, Automation, and Autonomous Systems
- F3470** — Standard Guide for A-UGV Capabilities
- F3588** — Standard Guide for Set of Objects used with A-UGVs
- F3218** — Standard Practice for Documenting Environmental Conditions for Utilization with A-UGV Test Methods
- F3243** — Standard Practice for Implementing Communications Impairments on A-UGV Systems
- F3327** — Standard Practice for Recording the A-UGV Test Configuration
- F3381** — Standard Practice for Describing Stationary Obstacles Utilized within A-UGV Test Methods
- F3244** — Standard Test Method for Navigation: Defined Area
- F3265** — Standard Test Method for Grid-Video Obstacle Measurement
- F3499** — Standard Test Method for Confirming the Docking Performance of A-UGVs



QUICK FACTS

Established 2014

Number of Members 140+

Number of Standards 10

The standards are available in Volume 15.13 in the *Annual Book of ASTM Standards*

Meetings F45 meets twice annually in April and October

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