

Experimental Test Range (ETR) Positioning System



Customer:

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ADC, in collaboration with NASA Langley Research Center, completed a turn-key design, build, and install major components for an updated indoor radar cross section and antenna measurement range. Modern radar systems, which include specialized active antennas, microwave circuits and devices, are governed by underlying electromagnetic physics. Designing sophisticated motion systems pushes the limits of engineering to solve ever-larger and more complex electromagnetic radiation and scattering problems. The RCS NASA Experimental Test Range consists of a rail positioning system and four rail positioning carriages: antenna measurement positioner, RCS pylon, azimuth rotator, and an electric manlift. A switching station allows for rail positioning carriages to be quickly moved on and off the rail system. Within the test chamber there is also a string reel positioning system capable of moving objects within a 40' x 40' x 25' volume.

