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### **Ball completes docking demonstration**

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BOULDER - Ball Aerospace & Technologies Corp., Lockheed Martin Space Systems Company and NASA conducted a successful technology demonstration of a navigation system designed to make docking operations safer and easier for spacecraft flying to the International Space Station.

The demonstration, which took place at Ball's facility in Boulder, simulated crewed and uncrewed docking operations. The docking navigation system prototype was developed by NASA, Ball Aerospace and Lockheed Martin and will be tested by astronauts aboard STS-134, NASA's final shuttle mission, in an on-orbit maneuver during the Orion crew's space shuttle mission to the space station in February.

NASA's Orion crew exploration vehicle is at the peak of its development phase, which has spurred several new technologies and innovations in composites, structures, thermal protection systems, avionics and navigation systems.

Because of its capability to determine shapes, intensity and distance, the sensing technology may also improve a variety of Earth-bound applications such as terrain mapping, deforestation monitoring and transportation hazardous avoidance systems.

The hardware consists of two sensors: the eye-safe flash LiDAR vision navigation sensor and the high-definition cockpit camera developed by Ball, as well as avionics and flight software developed by NASA Langley Research Center.

Both sensors will be used on the Orion spacecraft to provide real-time three-dimensional images to the crew with a resolution 16 times higher than the current shuttle sensors.

Ball Aerospace & Technologies Corp. is a subsidiary of Broomfield-based Ball Corp. (NYSE: BLL).