

Technology and Tools



Product # 1.1.0

Contact the Transition Partner POC in the green sidebar for further information or to obtain product deliverables

WARRP Project Title:

Automated Floor Sampling Device

For information contact:
Program Manager (DHS)
Lori Miller
lori.miller@hq.dhs.gov
202-254-5743

Transition Manager (DoD)
Doug Hardy
douglas.hardy@navy.mil
619-553-5410

Performer
Sang Don Lee
EPA
lee.sangdon@epa.gov
919-541-4531

Transition Partner
Erica Canzler
EPA OEM
canzler.eric@epa.gov
202-431-3146

Transition Partner
Shawn Ryan
EPA NHSRC
ryan.shawn@epa.gov
919-541-0699

TTA Signed on
18 May 2012 by
DHS S&T and EPA



Technology Readiness Level: **7**

Transition Partner: **EPA**

Performer: **EPA**

Deliverables:

Hardware, concept of operations, final report, training video

The commercially available robotic cleaners were evaluated in the laboratory for sampling efficacy. The highly efficient cleaners were improved as necessary by modification including the filtration system and surface agitation equipment. A series of laboratory tests were designed to evaluate the modified vacuum samplers. EPA National Homeland Security Research Center has developed repeatable surface contamination methods via aerosolization and has investigated adhesion property of spores on varied surfaces that were used to leverage the work on this project. The robotic cleaners (including optimized device) were tested for their sampling efficiency as a function of spore surface loading and surface types. A final report was prepared presenting the test results with detail of the test method.

