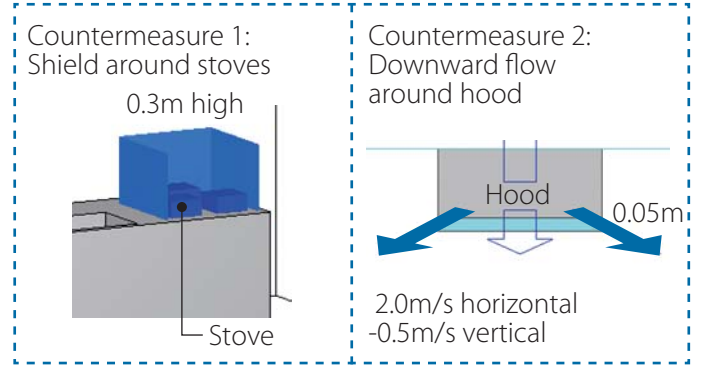
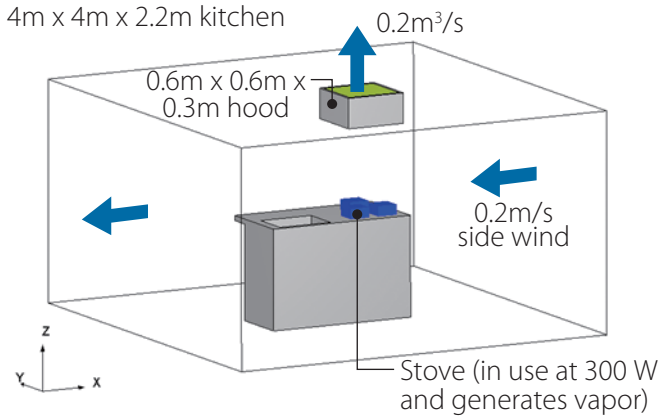


# Kitchen Environment

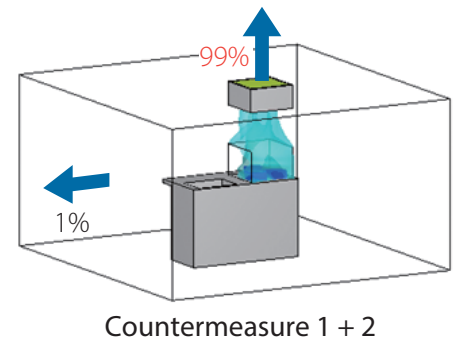
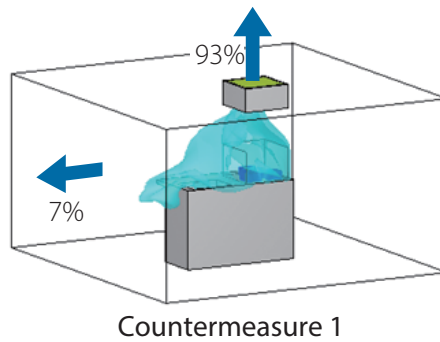
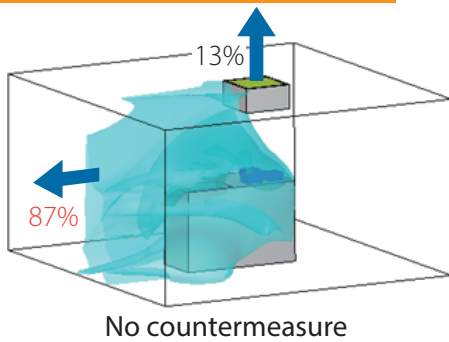
Diffusion and convection behaviors of water vapors are simulated using scSTREAM for a kitchen setup. The effects of a side wind and countermeasures to it are simulated as well.

## Simulation Model and Conditions

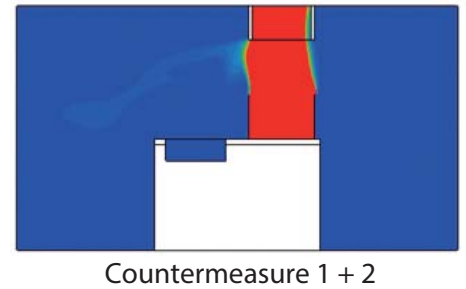
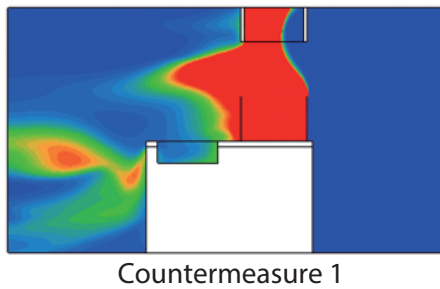
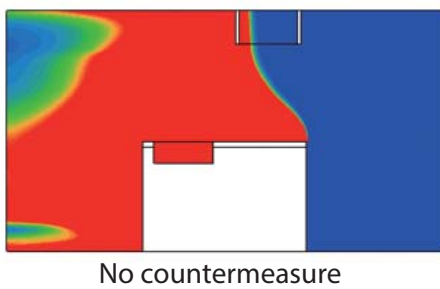


## Simulation Results

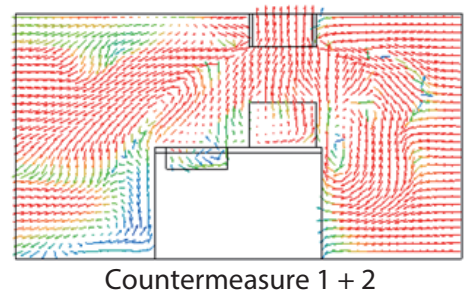
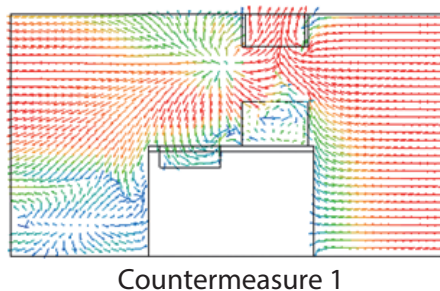
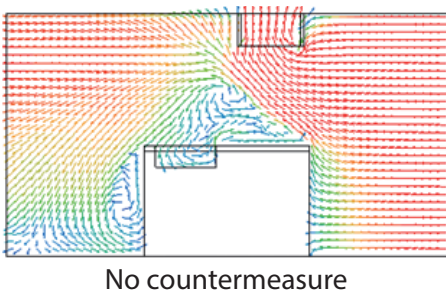
### Vapor distributions (isosurface)



### Vapor distributions (contour at center cross-section of hood)



### Flow velocity plot (vector at center cross-section of hood)



## Notes

scSTREAM is used to simulate behaviors of the water vapors generated from a kitchen stove in use. A shield around the stove is proven to prevent most of the vapors from scattering and it is shown that the downward flow around hood can have an added effect of blocking the side wind.