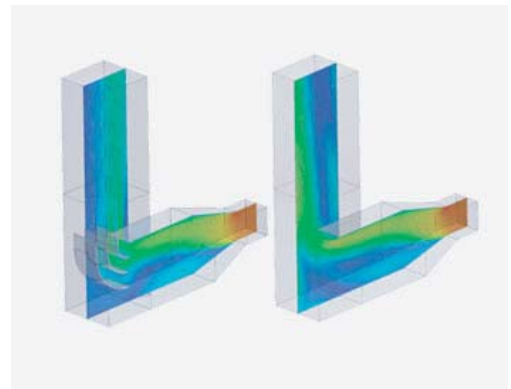


# Increase your product and service quality with computer-aided-engineering (CAE)

3D QuickTools promotes local tech companies to use CAE to improve their product and service quality. Three main categories we are now supporting: Fluid Dynamics, Solid Mechanics and Thermal Analysis. The use of our CAE services may reduce and eliminate your physical tryouts. The cost benefits and time saving will give designers and innovators positive impact.

## Fluid Dynamics

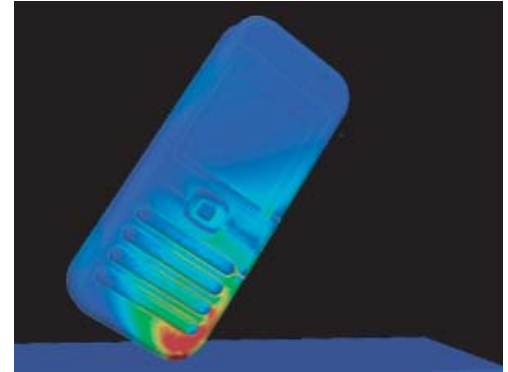
- Locate flow separations
- Investigate transient effect
- Identify physical interactions
- Validate experimental results
- Run parametric studies
- Couple with structural simulations
- Reduce pressure drops
- Homogenize flow
- Improve laminar and turbulent mixing



Velocity distribution optimization of a duct

## Solid Mechanics

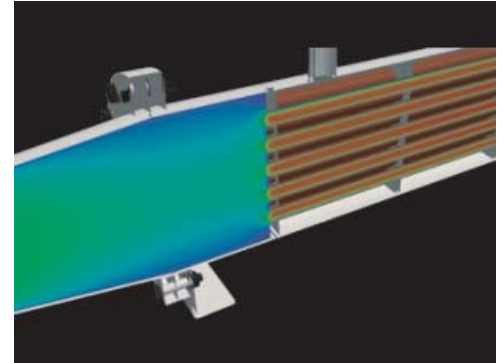
- Investigate force fluxes
- Figure out critical features and reduce complexity
- Identify fundamental eigenmodes
- Validate experimental results
- Compare design variations
- Conduct parametric studies
- Reduce wall thickness
- Prevent stress peaks and material failures
- Predict displacements and dynamic behaviors



Cell phone drop test

## Thermal Analysis

- Investigate temperature distribution
- Thermomechanical coupling
- Track heat flux
- Validate experimental results
- Compare steady-state and transient effects
- Investigate energy loss
- Improve cooling effects
- Identify optimal materials



Solid-Fluid interaction in a heat exchanger

3D QuickTools have flexible service price structure with the objective to promote more tech companies to apply advanced CAE. Don't hesitate to contact us now. We shall work together with you to increase your product and service quality.