

# LSDYNA - BASIC

## ANALYSIS

- ▶ Example of Applications
- ▶ Difference-Explicit & Implicit Integration
- ▶ Input Deck Fundamentals
- ▶ How to define a problem in LS DYNA?
- ▶ Time Step
- ▶ Mass Scaling
- ▶ Hour Glass
- ▶ Rigid Bodies

## OVERVIEW ON CONTACTS

- ▶ Constrained rigid Body
- ▶ Xtra nodes
- ▶ Automatic single surface
- ▶ Automatic General
- ▶ Force transducer
- ▶ Rigid Wall

## OVERVIEW ON MATERIAL MODELS

- ▶ Elastic, Plastic Models
- ▶ Material Rigid

## LOADS AND BOUNDARY CONDITIONS

- ▶ Constraining the model
- ▶ Defining Initial velocities and acceleration
- ▶ Boundary prescribed motion
- ▶ Concentrated loads
- ▶ Abnormal Terminations and Assessment of Results

## EXERCISES:

- ▶ Drop
- ▶ Crash and Impact

## POST PROCESSING : HYPERVIEW/LS-PREPOST

- ▶ Basic interaction with HyperView/LS-PREPOST
- ▶ Results visualization: contour, deformed and iso surface
- ▶ Animating results in the animation window

## PRESENTING RESULTS :

- ▶ Creating BMP, JPEG, TIF, AVI files and HTML files
- ▶ Converting AVI files for use in the video window

## HOW TO VALIDATE YOUR ANALYSIS RESULTS?

- ▶ Is your Analysis results are good?
- ▶ Using Engineering judgments to understand spurious stress
- ▶ How do we choose mesh size?