# Test Constructor

# Individual Test Execution

Create directory

* directory name
* workspace directory

Modify template input file

* template input file file path
* specific input file file path
* parameter dictionary
  + simulation parameters
* Magstrom configuration files

Modify template model file

Modify geometry file

Shell Magstrom

* Magstrom path
* input file filepath

# Required Classes, Modules, Functions, and Configuration Files

Datafile Decoders (returns dictionary with numpy arrays

* Magstrom output files
  + Magnetization probe outputs

N-dimensional Loss calculator

* reference data preprocessor
* test data preprocessor
* point interpolation
* regional weights
* point density compensator
  + adjust point density of certain regions
  + weight regions based on number of points in that region (integration?)

Data manipulation

* parameterization
* filtering
* density interpolation
* calculus
* scaling (linear, non-linear; unit conversion, normalization, etc.)
* regional weighting
* manipulation toolchain container

Data visualization

* plot generator

Optimizers

* Gradient descent
  + parameter space constructor

Input file interface

Input file contents

* output
* units
* mesh
* basis order
* floating-point output format
* material
* background
* source signatures
* excitation
* probe
* simulation groups
* boundary condition
* analysis type
* non-linear solver
* control flags