

## CAD Model with Features

### Defeating

Calculate Part BB, diagonal Size

Get User Input for Threshold

For each Feature

Fillet: Add if  $2 * \text{Radius} < \text{Threshold}$

Chamfer: Add if  $\text{Size} < \text{Threshold}$

Hole: Add if  $\text{Diameter} < \text{Threshold}$

Mirror/Pattern: Add Master

Any: Decide addition based on Children

Suppress the eligible features

### Midsurface Generation

For each Feature

Primitives: Create Pre-Cooked

Extrude, Revolve, Sweep, Loft

Boolean: Create for Tool Body, Join

App specific features

Validate the model

Thick Profile: Offset Profile Face

Thin Profile: Create Midcurves  
Add them to Profile

Idealized Model

