



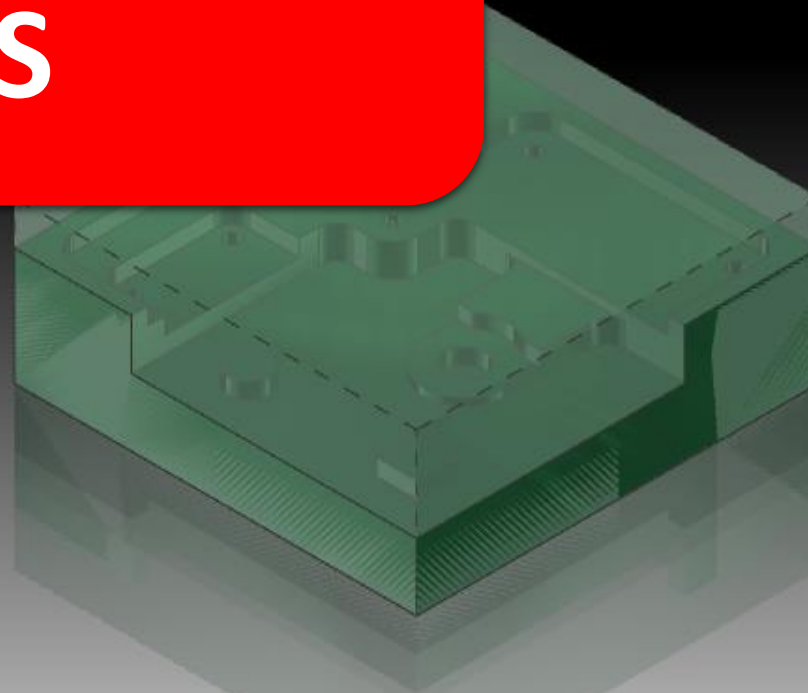
PLM Software

**SIEMENS**

**NX**

# ACABAMENTO DE PAREDES

Edgard Gonçalves Cardoso  
[www.professoredgard.com](http://www.professoredgard.com)



NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

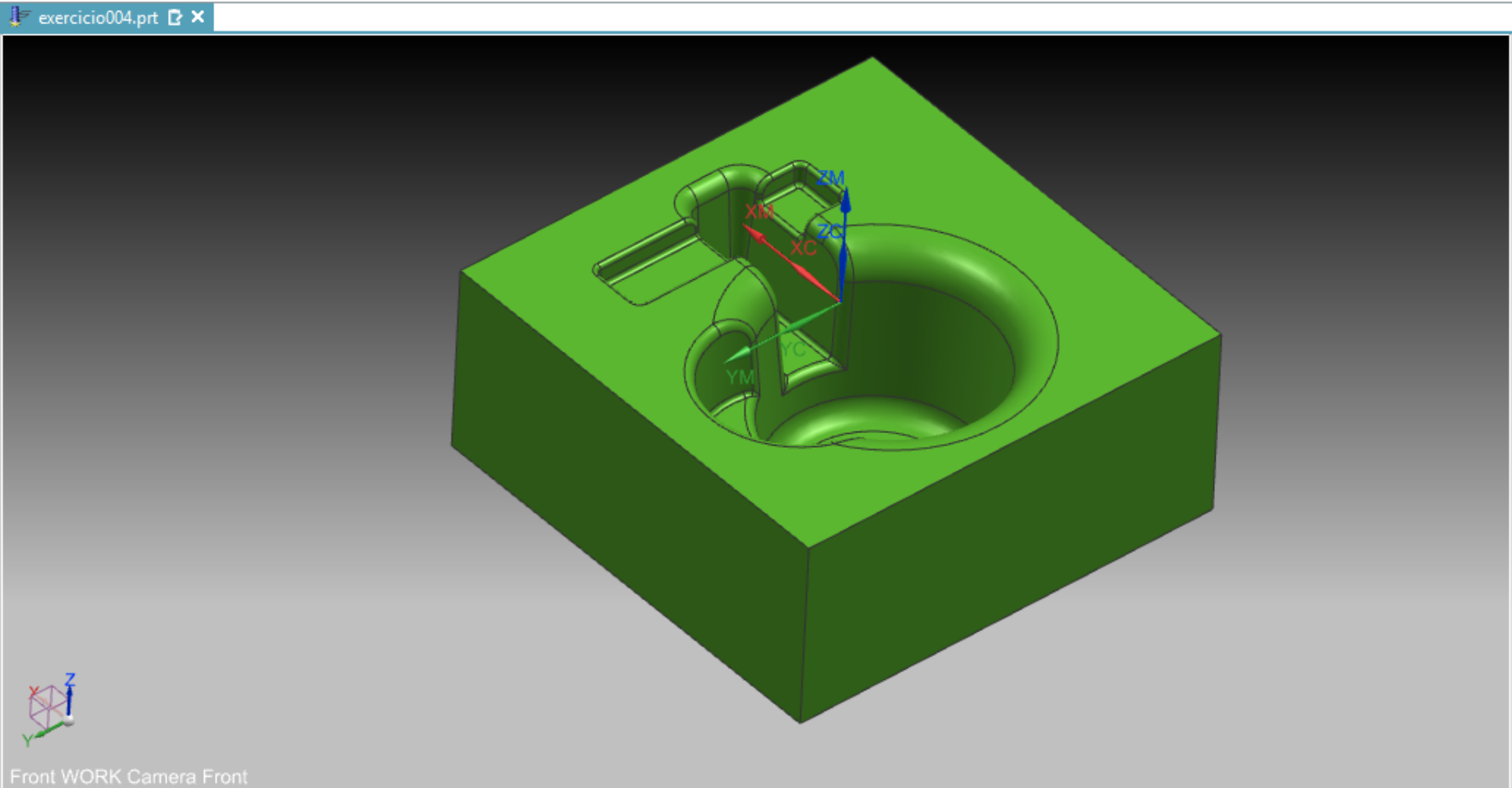
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABAMENTO_PARE	✓	FRESA

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects

Part file saved

SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

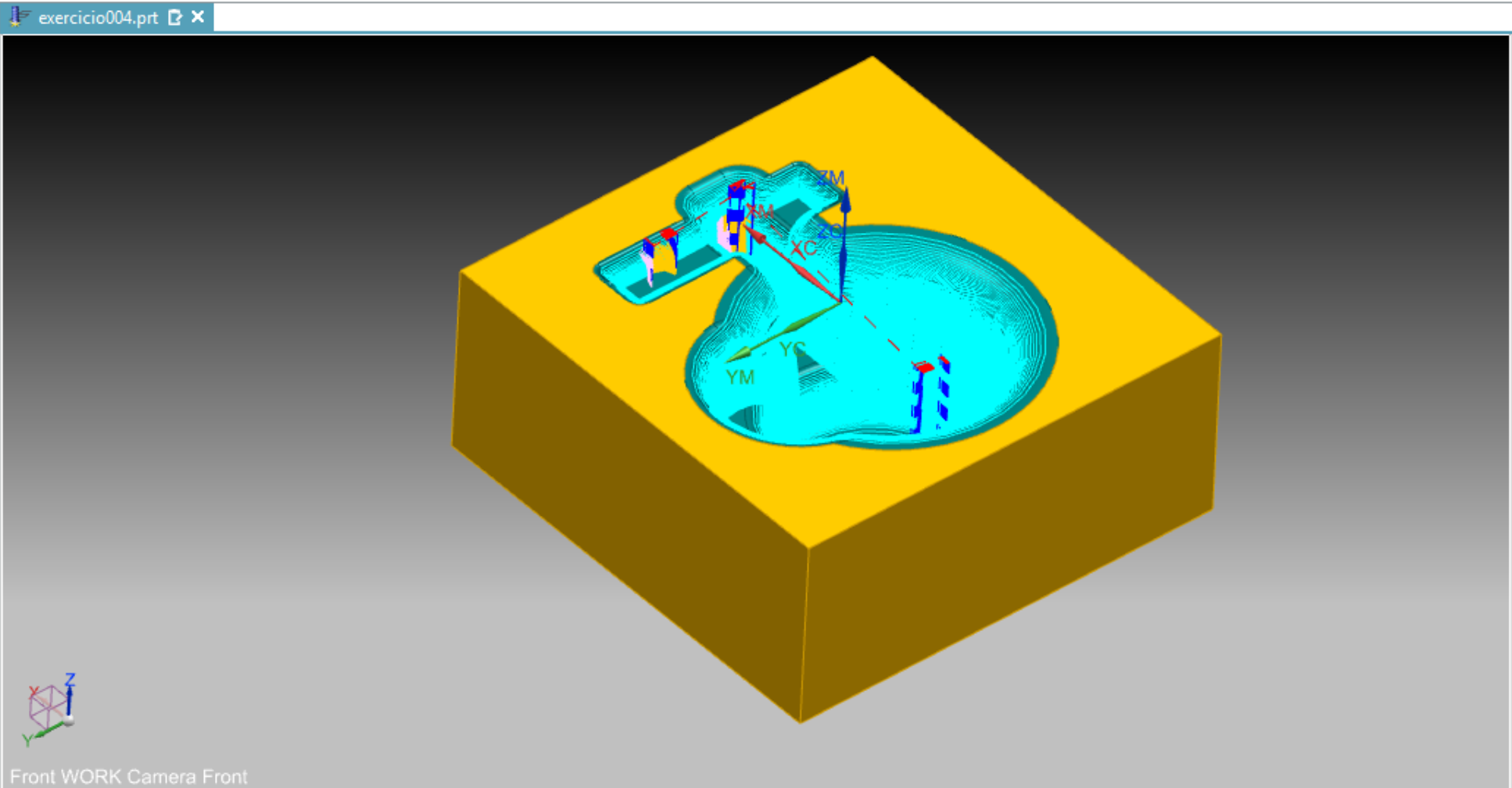
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABAMENTO_PARE	✓	FRESA

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects total 1

SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

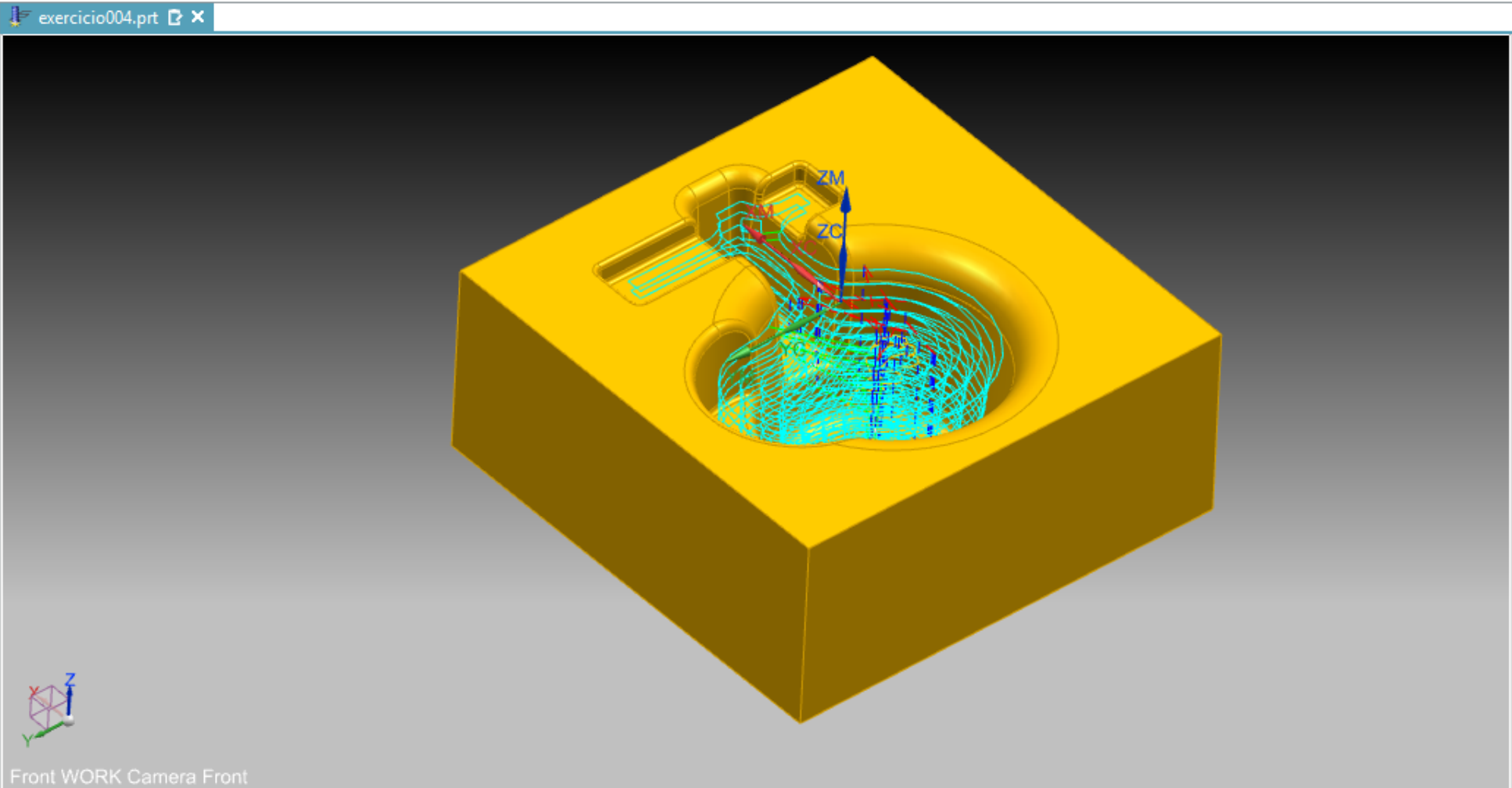
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABAMENTO_PARE	✓	FRESA

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects total 1

SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

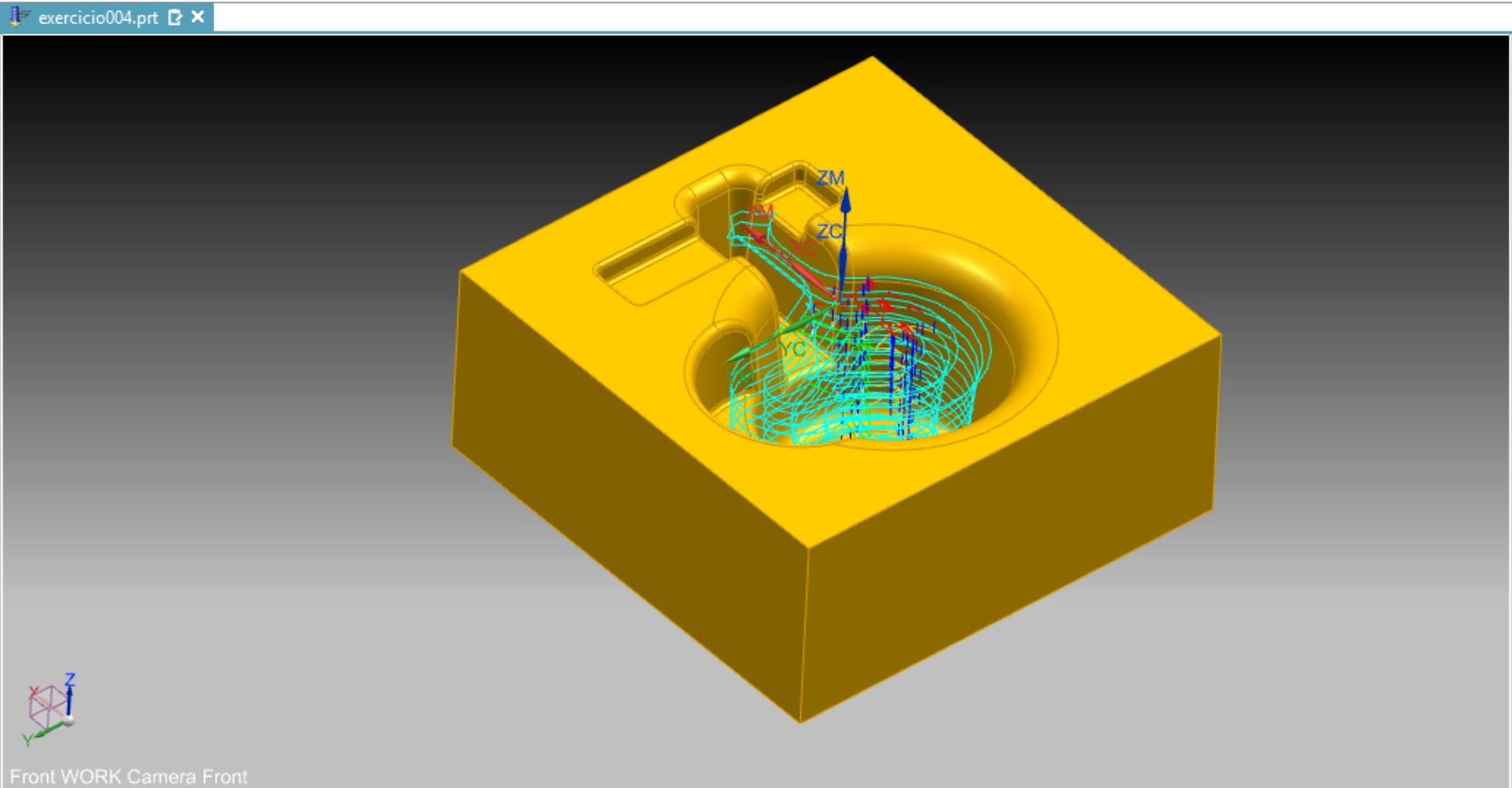
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABAMENTO_PARE	✓	FRESA

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects total 1

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Connections Containment More

Strategy Stock Corners

Cutting

Cut Direction: Climb Cut

Cut Order: Depth First

Extend Path

- Extend at Edges
- Roll Tool Over Edges
- Continue Cutting Below Tool Contact

OK Cancel

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
! DESBASTE	✓	FRESA
FRESA_16		
! REDESBASTE	✓	FRESA
FRESA_12		
! ACABAMENTO_PARE	✓	FRESA

Dependencies Details

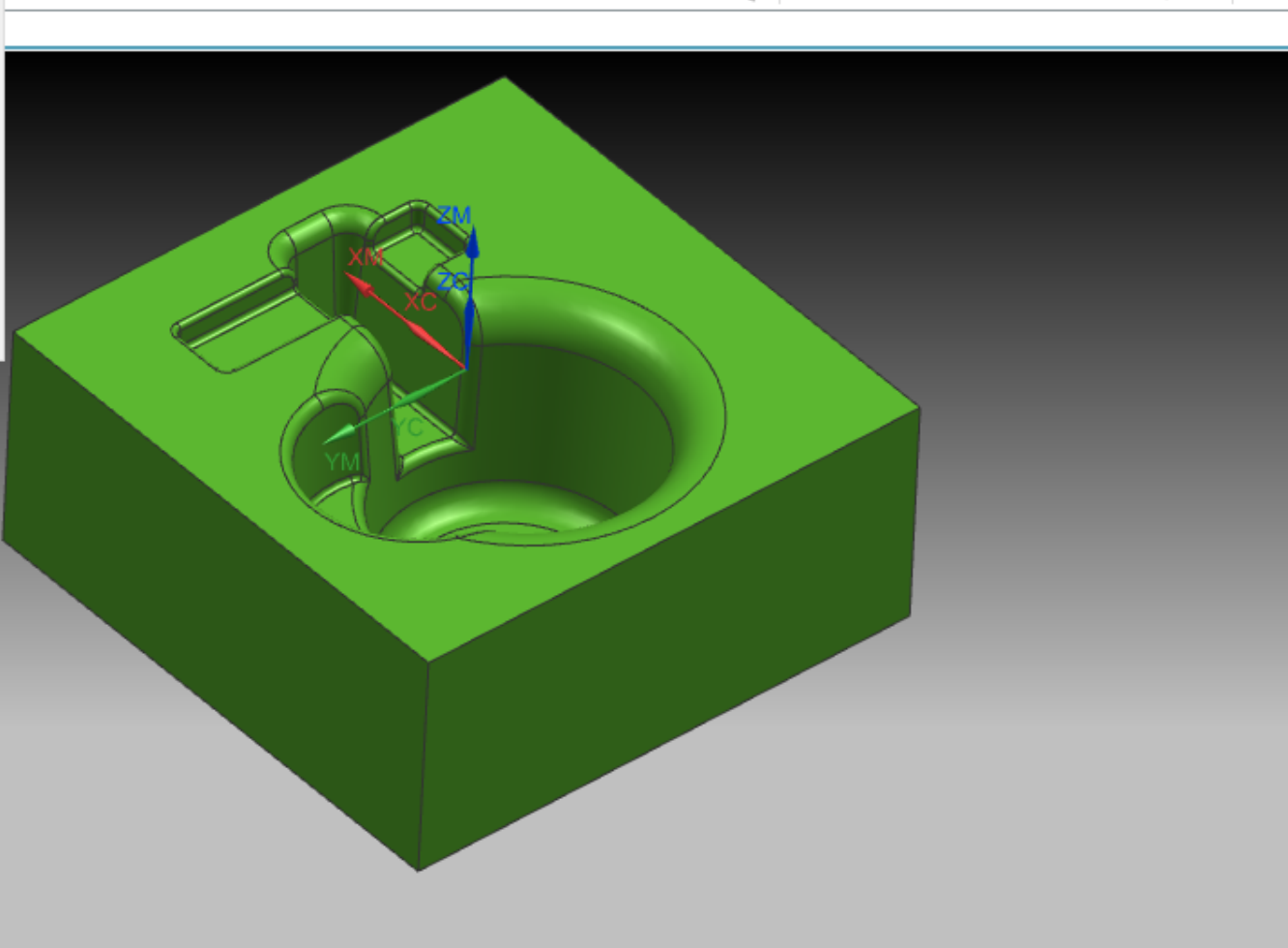
Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESABASTE	✓	FRESA
FRESA_16		
REDESABASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Specify Cut Area

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Step Containment: None

Merge Distance: Steep Only

Minimum Cut Length: 1.0000 mm

Common Depth per Cut: Constant

Maximum Distance: 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

Actions

OK Cancel

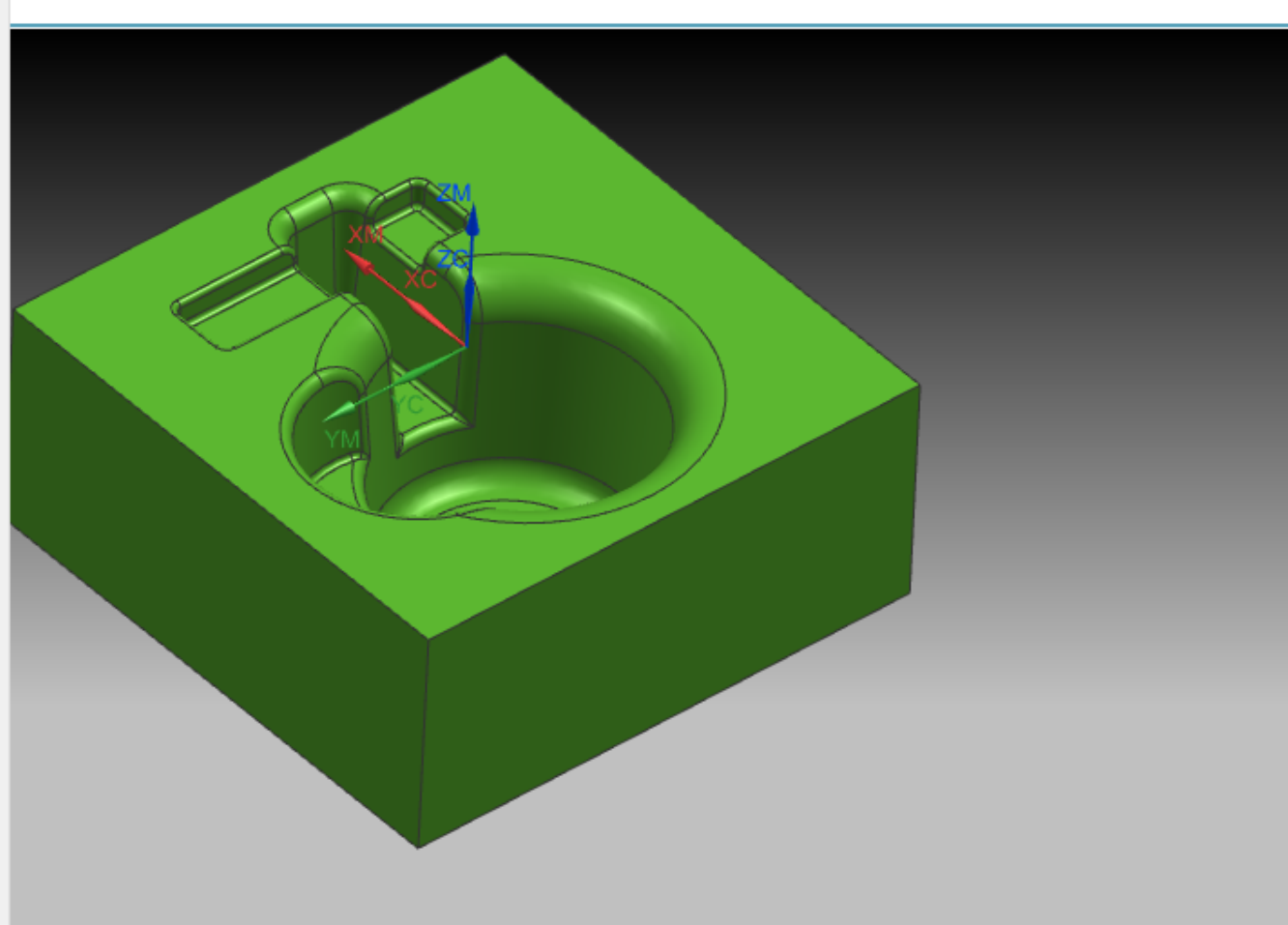
Find a Command

Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify parameters

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESABASTE	✓	FRESA
FRESA_16		
REDESABASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Specify Cut Area

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Steep Containment: Steep Only

Angle: 65.0000

Merge Distance: 3.0000 mm

Minimum Cut Length: 1.0000 mm

Common Depth per Cut: Constant

Maximum Distance: 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

Actions

OK Cancel

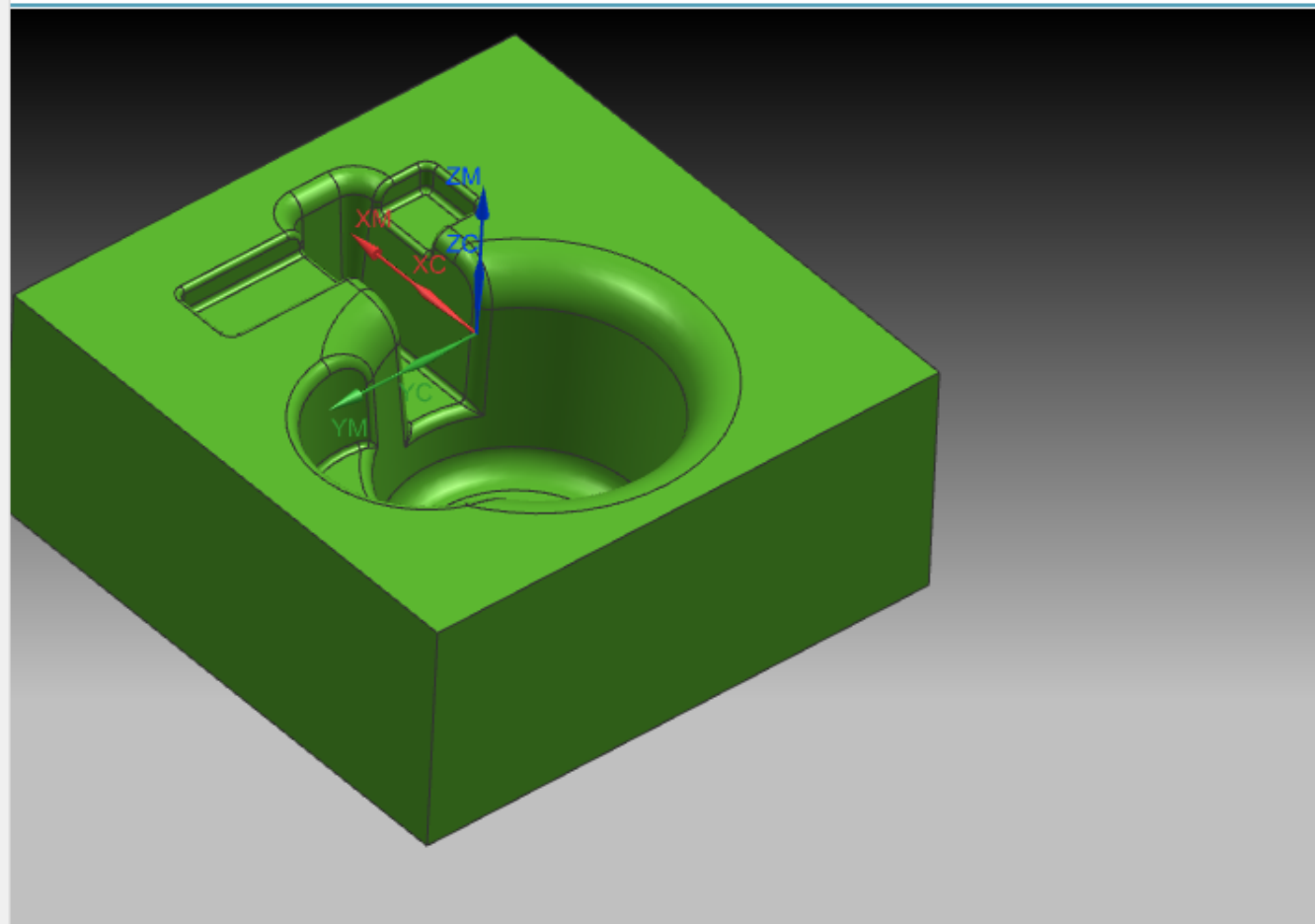
Find a Command

Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify parameters



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESABASTE	✓	FRESA
FRESA_16		
REDESABASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Specify Cut Area

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Steep Containment: Steep Only

Angle: 35.0000

Merge Distance: 50.0000 %Tool

Minimum Cut Length: 50.0000 %Tool

Common Depth per Cut: Constant

Maximum Distance: 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

Actions

OK Cancel

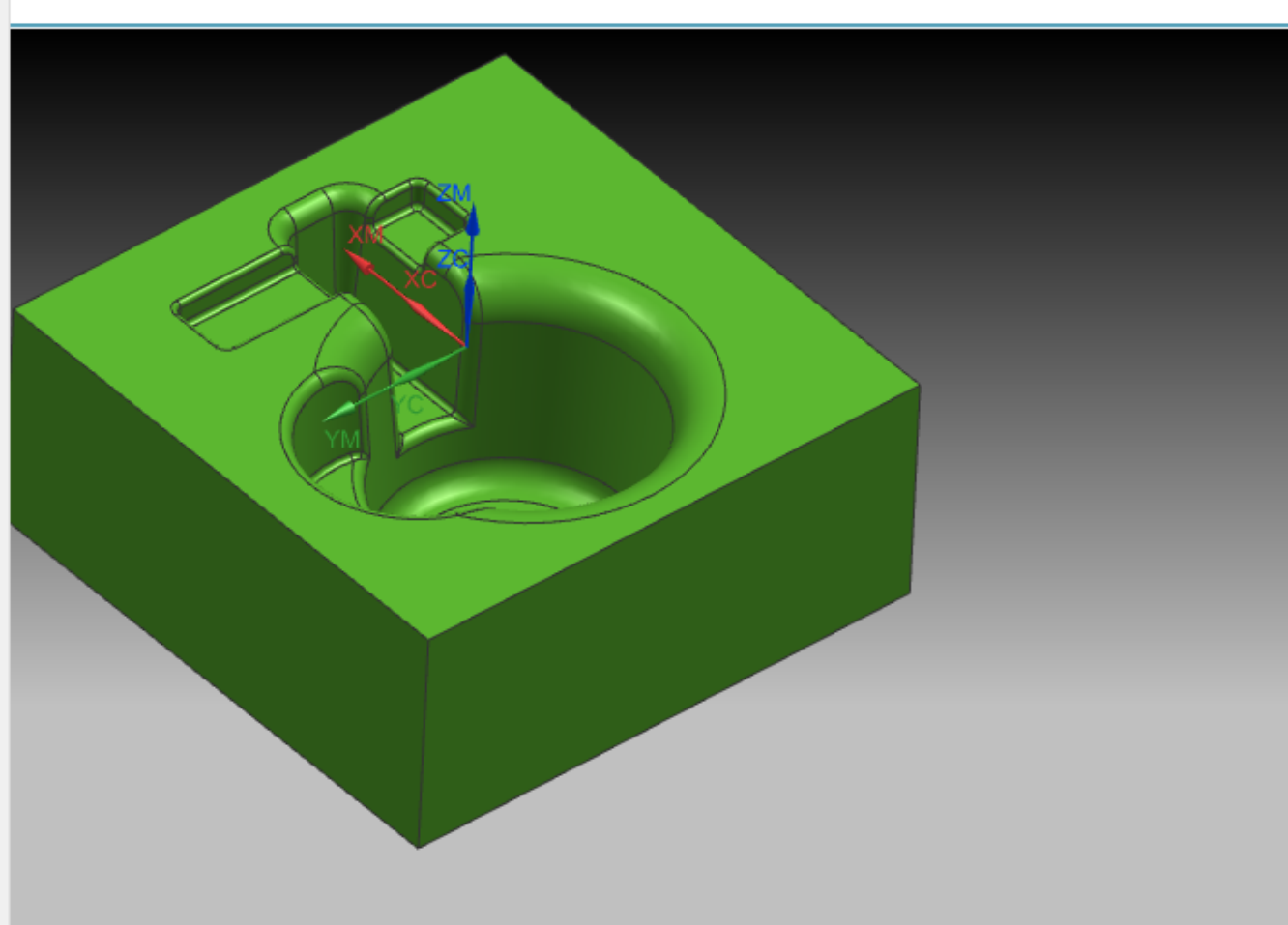
Find a Command

Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify parameters

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
! DESBASTE	✓	FRESA
FRESA_16		
! REDESBASTE	✓	FRESA
FRESA_12		
! ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Steep Containment Steep Only

Angle 35.0000

Merge Distance 50.0000 %Tool

Minimum Cut Length 50.0000 %Tool

Common Depth per Cut Constant

Maximum Distance 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

OK Cancel

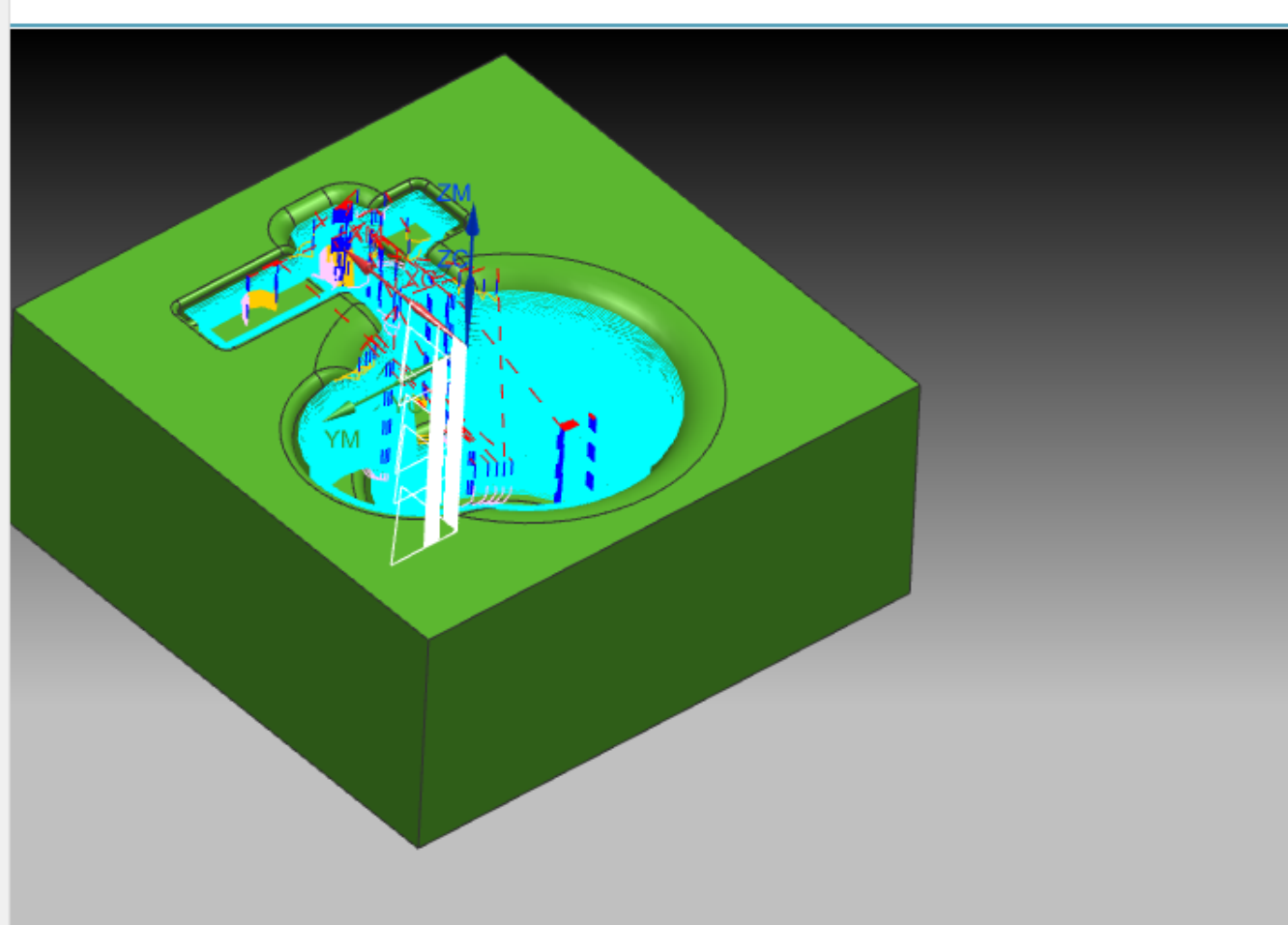
Find a Command

Display Animation Workpiece

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



urrent: ACABEMENTO\_PAREDES

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Trim Boundaries

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESABASTE	✓	FRESA
FRESA_16		
REDESABASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Steep Containment Steep Only

Angle 35.0000

Merge Distance 50.0000 %Tool

Minimum Cut Length 50.0000 %Tool

Common Depth per Cut Constant

Maximum Distance 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

OK Cancel

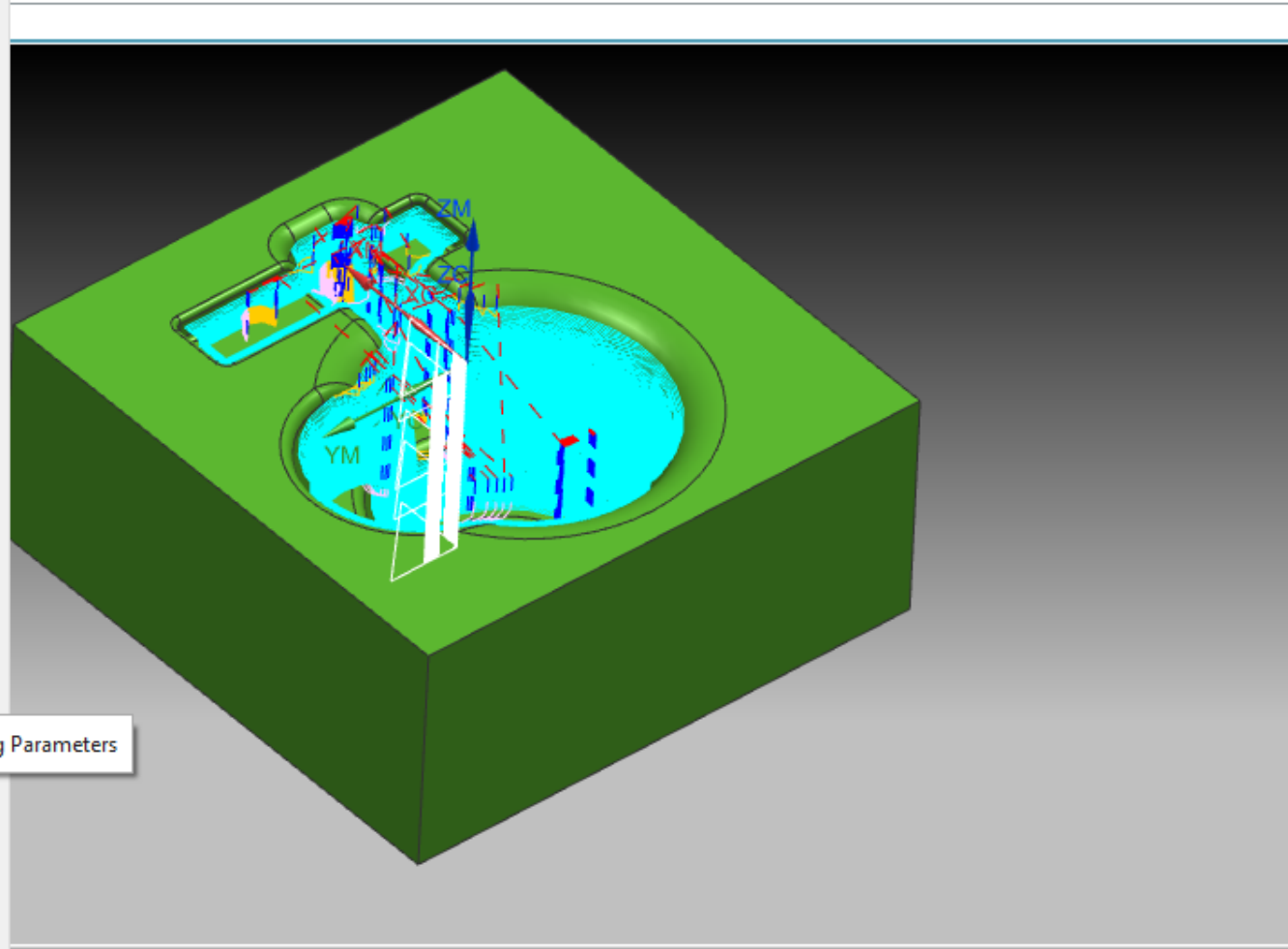
Find a Command

Display Animation Workpiece

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Cutting Parameters

Strategy Stock Corners

Connections Containment More

Between Levels

Level to Level Use Transfer Method

Cut Between Levels

Stepover Use Depth of Cut

Feed on Short Moves

OK Cancel

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
! DESBASTE	✓	FRESA
FRESA_16		
! REDESBASTE	✓	FRESA
FRESA_12		
! ACABAMENTO_PARE	✓	FRESA

Dependencies Details

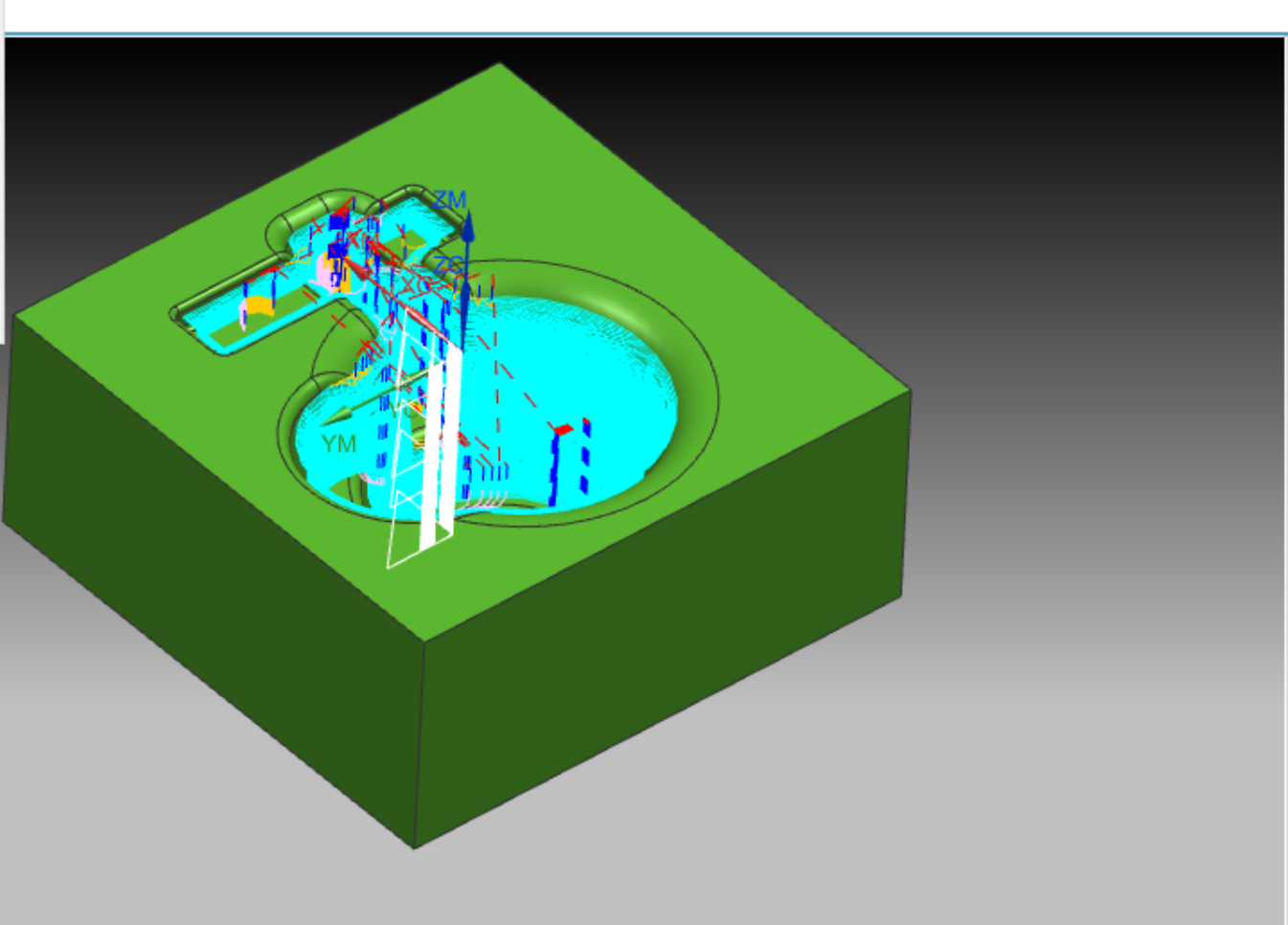
NX 12 - Manufacturing

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify Cutting Parameters Current: ACABAMENTO\_PAREDES

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Strategy Stock Corners

Connections Containment More

Between Levels

Level to Level Stagger Ramp on Part

Ramp Angle 30.0000

Cut Between Levels

OK Cancel

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
! DESBASTE	✓	FRESA
FRESA_16		
! REDESBASTE	✓	FRESA
FRESA_12		
! ACABAMENTO_PARE	✓	FRESA

Dependencies

Details

Find a Command

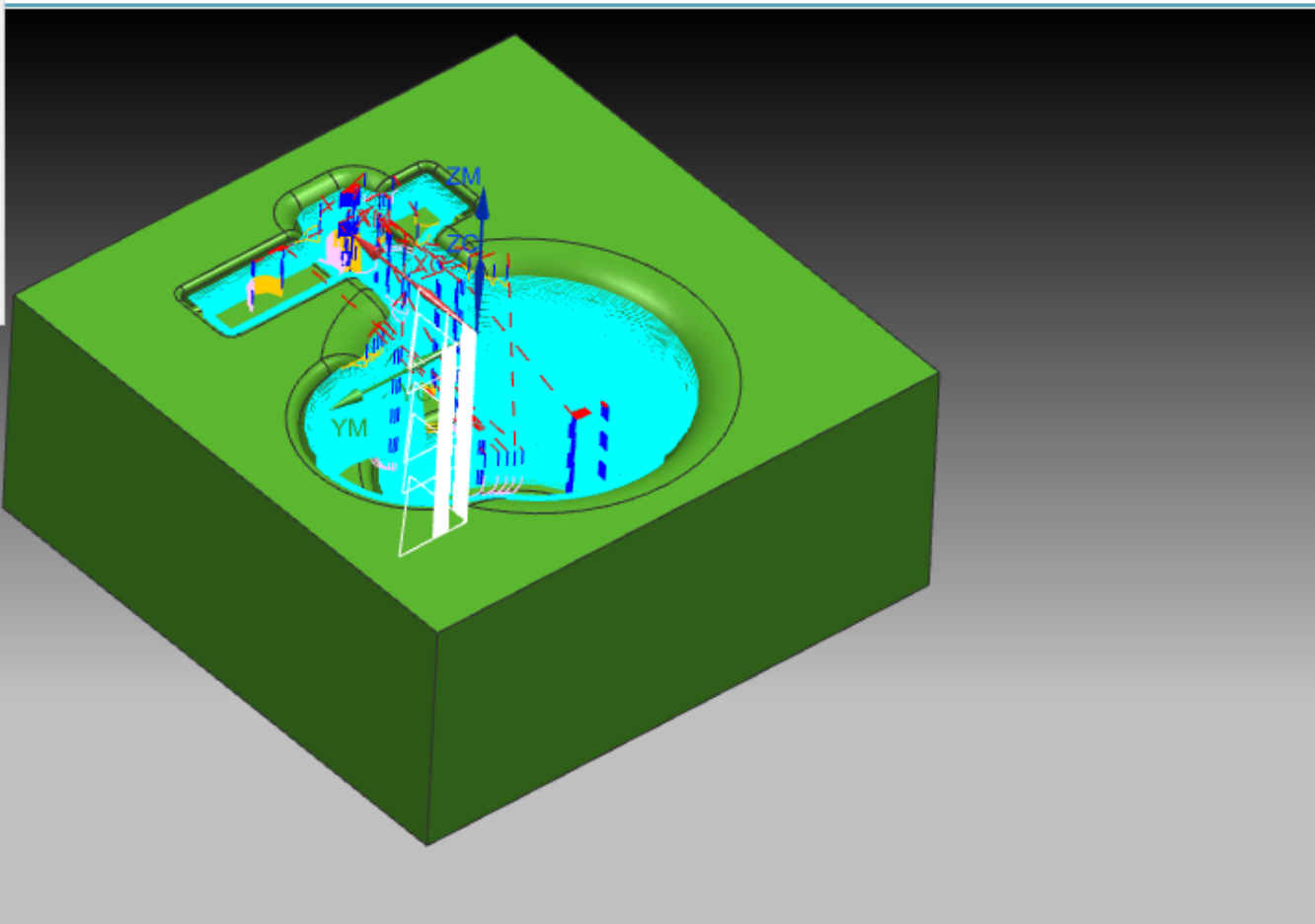
Speed 5

Animation

Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify Cutting Parameters

Current: ACABAMENTO\_PAREDES

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Strategy Stock Corners

Connections Containment More

Between Levels

Level to Level Stagger Ramp on Part

Ramp Angle 5

Cut Between Levels

OK Cancel

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
! DESBASTE	✓	FRESA
FRESA_16		
! REDESBASTE	✓	FRESA
FRESA_12		
! ACABAMENTO_PARE	✓	FRESA

Dependencies Details

Find a Command

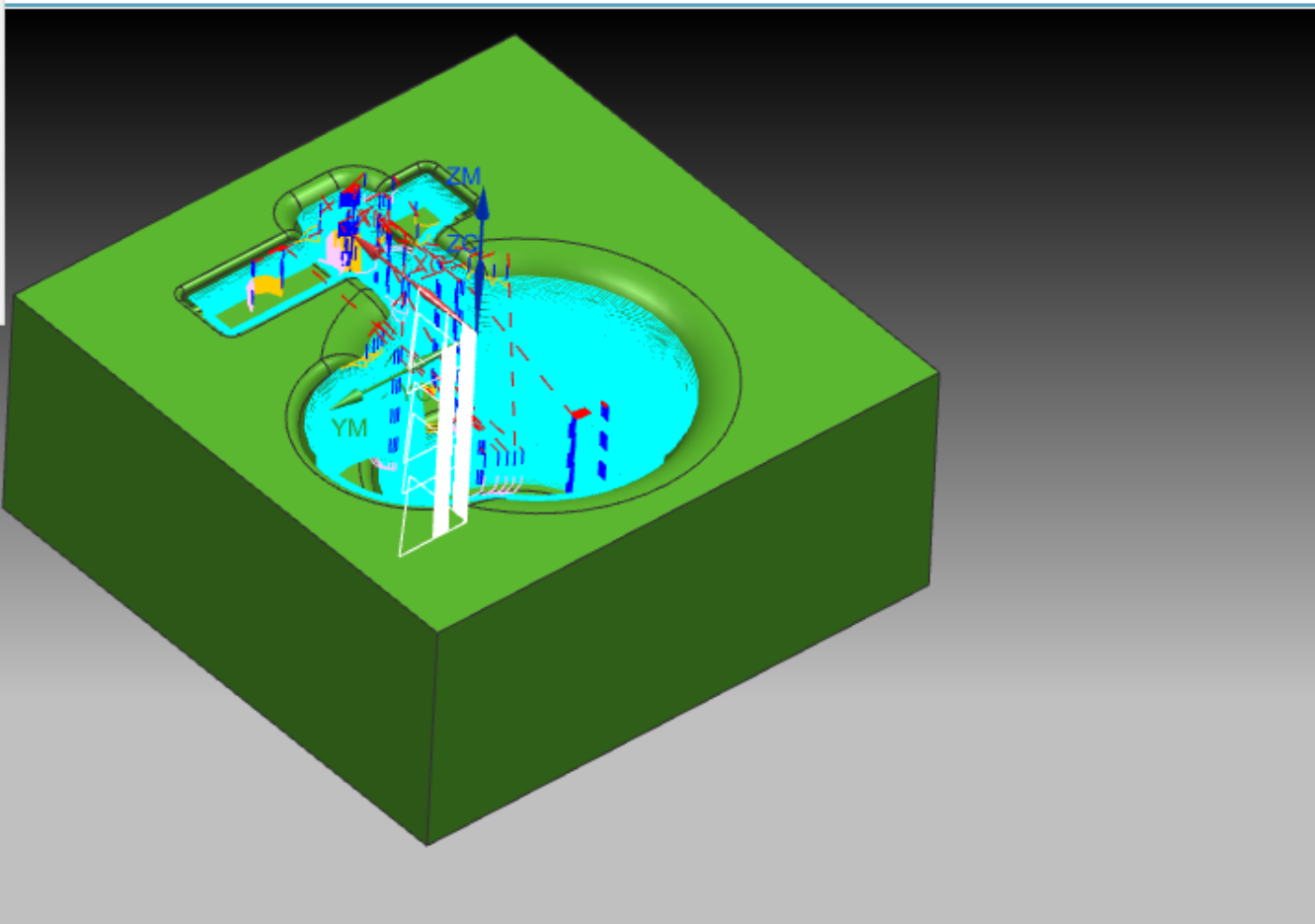
Speed 5

Animation

Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Step Containment: Step Only

Angle: 35.0000

Merge Distance: 50.0000 %Tool

Minimum Cut Length: 50.0000 %Tool

Common Depth per Cut

Maximum Distance

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

Actions

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies

Details

Operation Edit

✗ Ramp to level not allowed.  
Transfer Method was used between levels of open regions.

OK

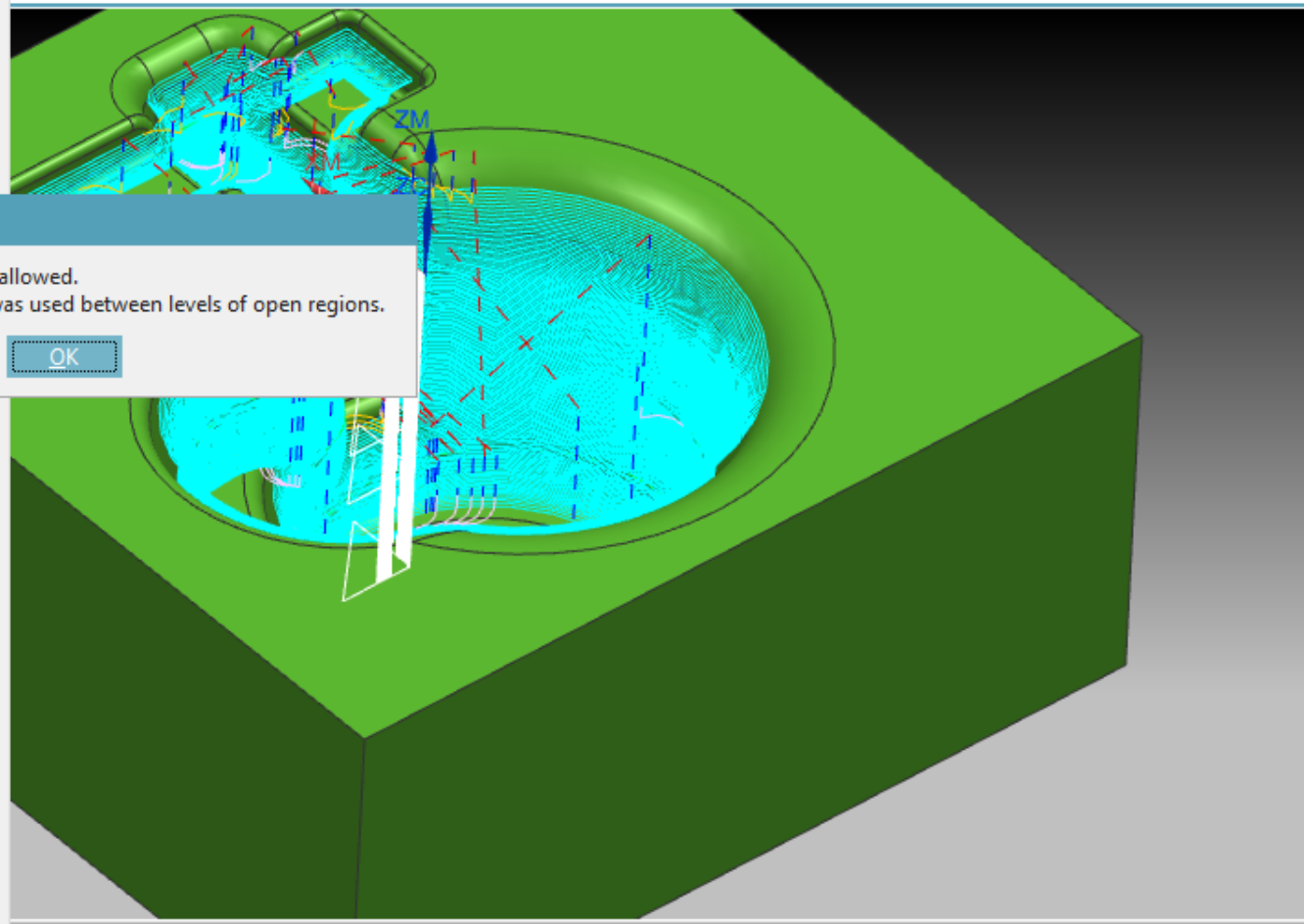
Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools



Specify parameters

OK Cancel

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESABASTE	✓	FRESA
FRESA_16		
REDESABASTE	✓	FRESA
FRESA_12		
ACABEMENTO_PARE	✓	FRESA

Dependencies Details

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Steep Containment Steep Only

Angle 35.0000

Merge Distance 50.0000 %Tool

Minimum Cut Length 50.0000 %Tool

Common Depth per Cut Constant

Maximum Distance 0.5000 mm

Cut Levels

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Find a Command

Speed 5

Animation

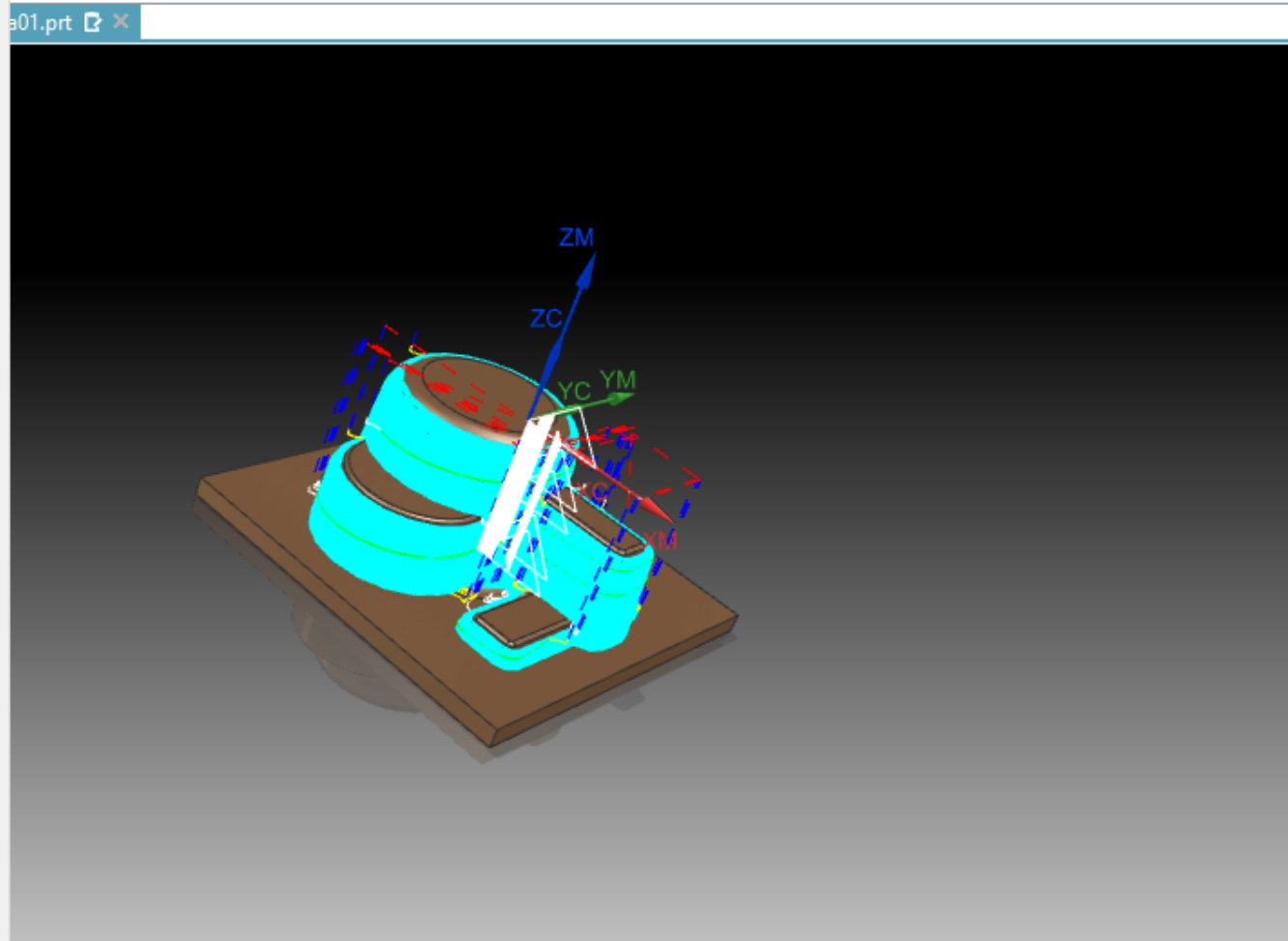
Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Display

Single Face Single Body



Specify parameters

OK Cancel

Current: ACABEMENTO\_PAREDES



SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

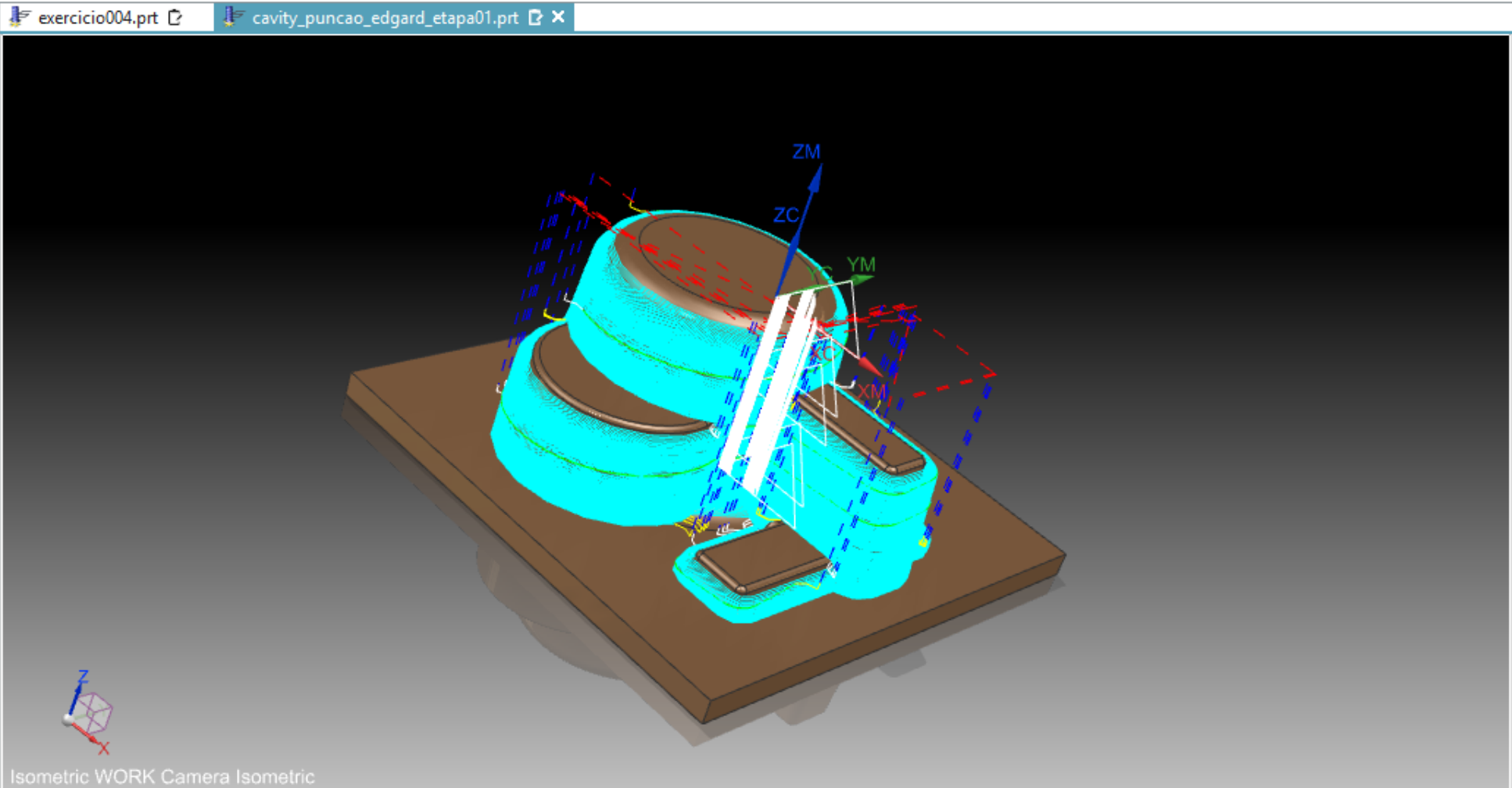
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path	Tool
GENERIC_MACHINE		
Unused Items		
FRESA_25		
DESBASTE	✓	FRESA
FRESA_16		
REDESBASTE	✓	FRESA
FRESA_12		
ACABAMENTO_PARE	✓	FRESA

Dependencies

Details



MB2 to browse objects and MB1 to select object total 1 1 nova notificação

Windows taskbar: Digite aqui para pesquisar, 09:11, 23/05/2018

NX 12 - Modeling

SIEMENS

File Home Assemblies Curve Surface Analysis View Render Tools Application

Find a Command

Sketch: Sketch, Direct Sketch

Feature: Datum Plane, Extrude, Hole, Unite, Shell, Chamfer, Edge Blend, Trim Body, Draft, More

Synchronous Modeling: Move Face, Offset Region, Replace Face, Delete Face, More

Surface: Through Curve Mesh, Through Curves, Swept, Fill Surface, More

Assemblies: Work on Assembly, Add, Assembly Constraints, Move Component, Pattern Component

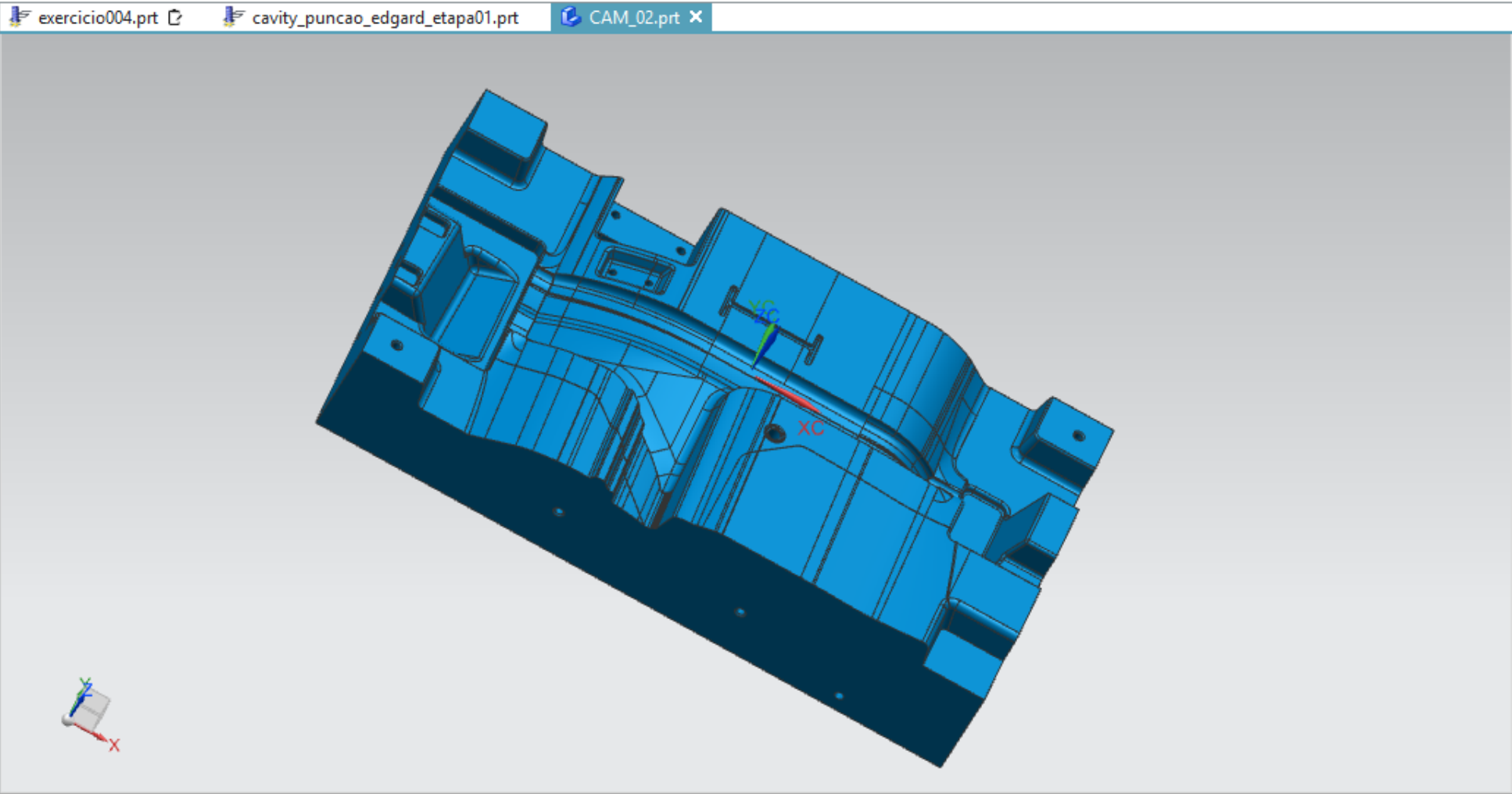
Menu No Selection Filter Entire Assembly

Assembly Navigator

Descriptive Part Name	Info	R.
Sections		
CAM_02		

Preview

Dependencies



Select objects and use MB3, or double-click an object

File Home As

Create Tool Create Geometry Create Operat

Insert

Menu

Operation Navigator

Name

NC\_PROGRAM

Unused Items

PROGRAM

DESBA

REDESE

ACABE

Dependencies

Details

Choose Step or Play to start

### Tool Path Visualization

5649

1 5649

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

Tools Application

Shop Documentation More

Display

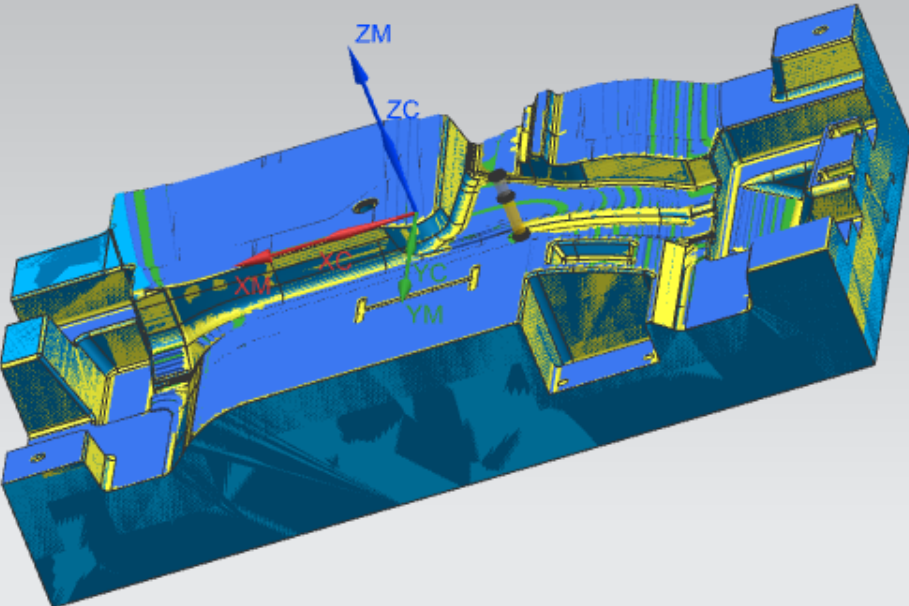
Animation Speed 5

Workpiece Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Find a Command

cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



feed = 0.000, x = -128.07, y = 153.96, z = 10.00

Mostrar ícones ocultos

09:56

23/05/2018

File Home As

Create Tool Create Geometry Create Operation

Insert

Menu

Geometry

Geometry **WORKPIECE**

Specify Part

Specify Check

Specify Cut Area

Specify Trim Boundaries

Cut Regions

Operation Navigator

Name

NC\_PROGRAM

Unused Items

PROGRAM

DESBA

REDESE

ACABE

Dependencies

Details

Drive Method

Method **Area Milling**

Tool

Tool Axis

Path Settings

Method **MILL\_ROUGH**

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

OK Cancel

Tools Application

Find a Command

Shop Documentation More

Display Animation

Speed 5

Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body

cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt

Front

Current: ACABAMENTO\_SUPERFICIE

File Home As

Create Tool Create Geometry Create Operat

Insert

Step Containment

Method: None

Create Separate Regions For Flat Areas

Overlap Regions: None

Drive Settings

Non-step Cutting

Non-step Cut Patte: Zig Zag

Cut Direction: Climb Cut

Stepover: % Tool Flat

Percent of Flat Diameter: 50.0000

Stepover Applied: On Plane

Cut Angle: Automatic

Steep Cutting

Steep Cut Pattern: Zlevel Zig

Zlevel Cut Levels: Constant

Cut Direction: Climb Cut

Zlevel Depth per Cu: 50.0000 %Tool

Merge Distance: 50.0000 %Tool

Minimum Cut Leng: 5.0000 %Tool

More

Preview

OK Cancel

Tools Application

Find a Command

Post Process Shop Documentation More

Display Animation Speed: 5

Workpiece Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body

Operation Navigator

Name

NC\_PROGRAM

Unused Items

PROGRAM

DESBA

REDESE

ACABE

Dependencies

Details



File Home As

Step Containment

Method: Non-steep

Step Angle: 40.0000

Create Separate Regions For Flat Areas

Overlap Regions: None

Drive Settings

Non-steep Cutting

Non-steep Cut Patte: Follow Periphery

Pattern Direction: Inward

Cut Direction: Climb Cut

Stepover: % Tool Flat

Percent of Flat Diameter: 10

Stepover Applied: On Plane

Stepover Cleanup

Step Cutting

Step Cut Pattern: Zlevel Zig

Zlevel Cut Levels: Constant

Cut Direction: Climb Cut

Zlevel Depth per Cu: 50.0000 %Tool

Merge Distance: 50.0000 %Tool

Minimum Cut Leng: 5.0000 %Tool

More

Preview

OK Cancel

Tools Application

Find a Command

Post Process Documentation More Display Animation Workpiece

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body

Operation Navigator

Name

NC\_PROGRAM

Unused Items

PROGRAM

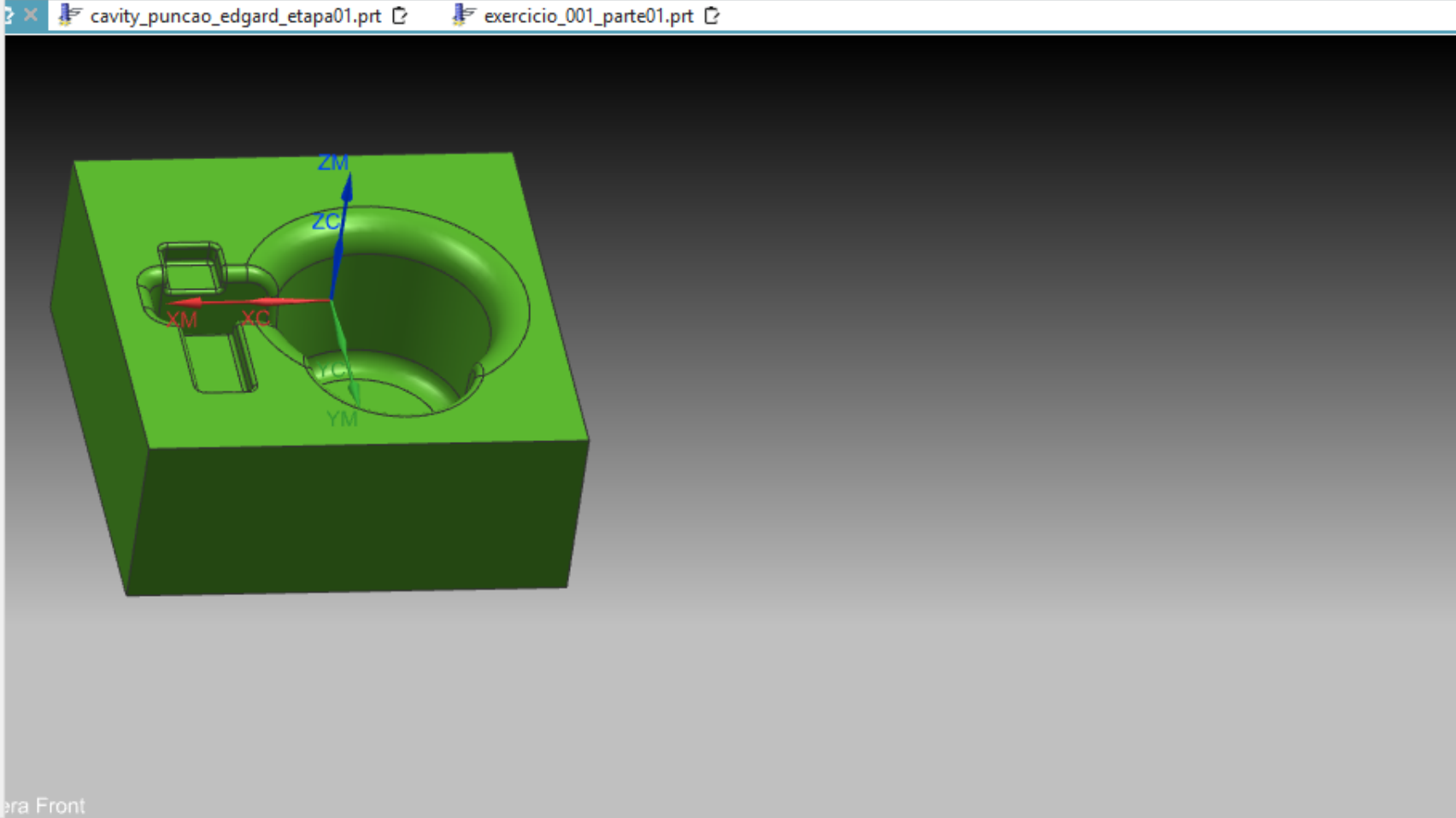
DESBA

REDESE

ACABE

Dependencies

Details



Specify Area Milling Drive parameters

SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

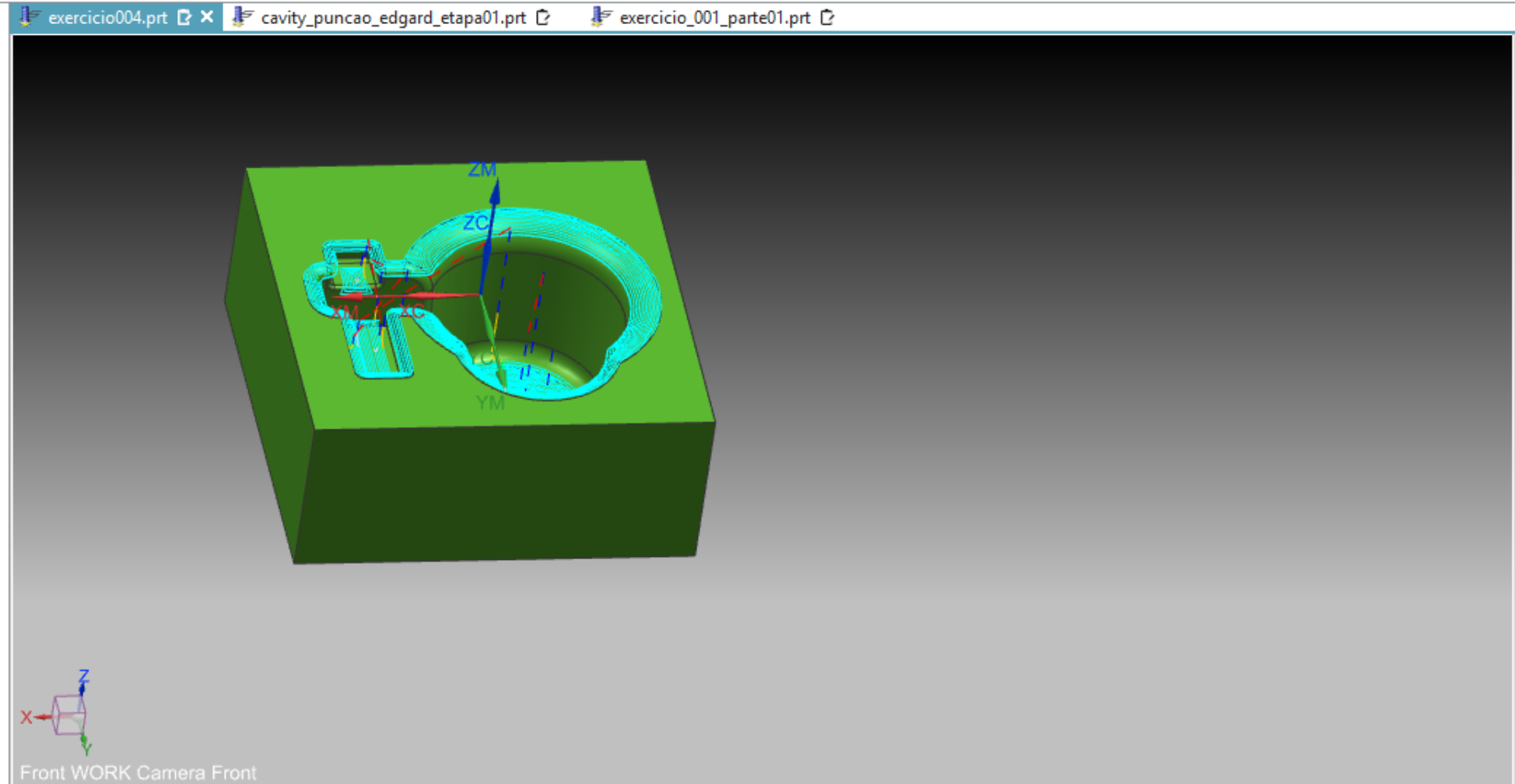
Menu No Selection Filter Entire Assembly

Operation Navigator - Program Order

Name	Toolchange
NC_PROGRAM	
Unused Items	
PROGRAM	
DESBASTE	
REDESBASTE	
ACABAMENTO_PARE	
ACABAMENTO_SUPE...	

Dependencies

Details



CAM Machining Operation ACABAMENTO\_SUPERFICIE

SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

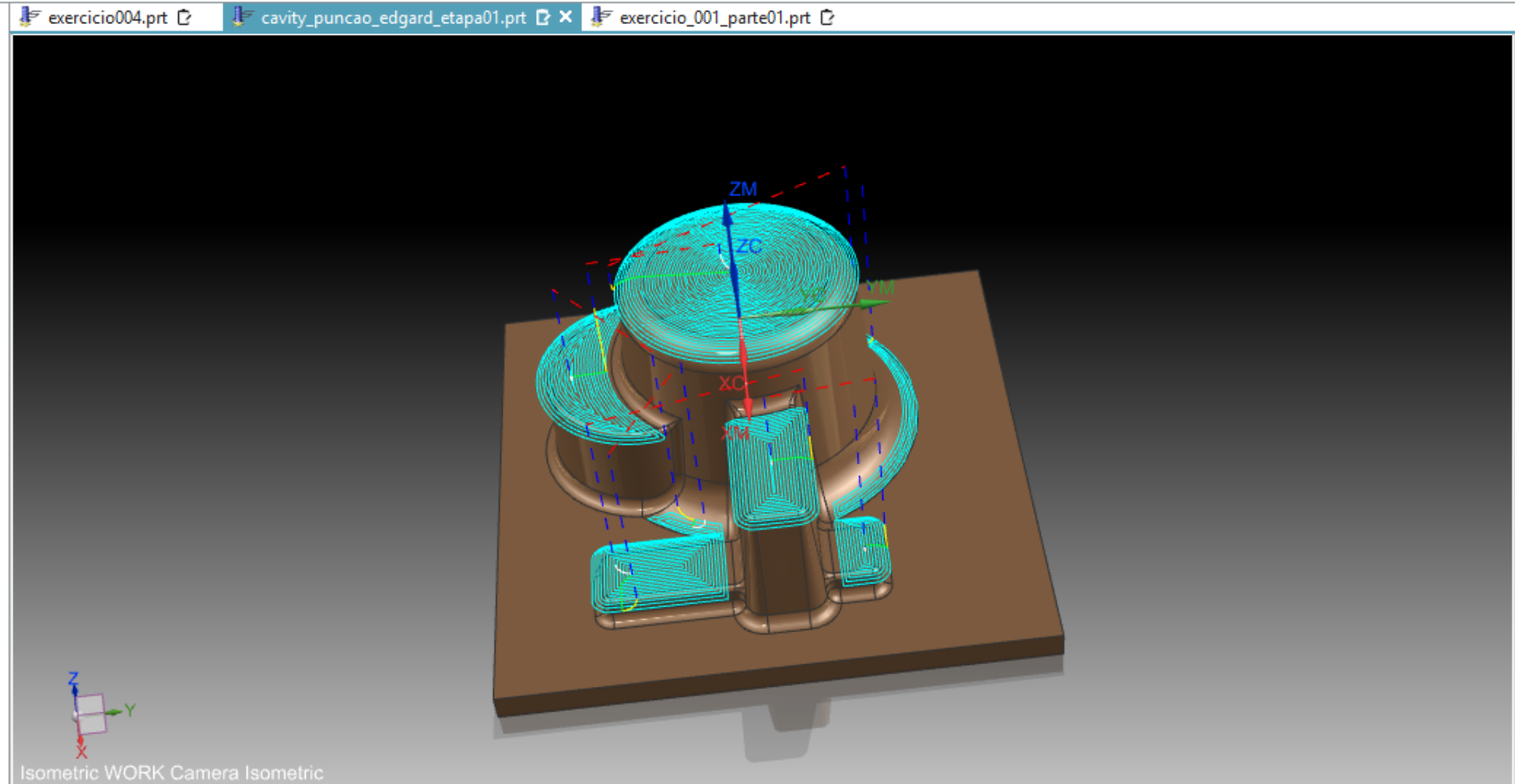
Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More  
 Insert Actions Operations Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Program Order

Name	Toolchange
NC_PROGRAM	
Unused Items	
PROGRAM	
DESBASTE	
REDESBASTE	
ACABAMENTO_PARE	
ACABAMENTO_SUPE...	

Dependencies Details



Edit objects in the Operation Navigator or use Insert to create new objects total 1



SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More Display Animation Speed 5 Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

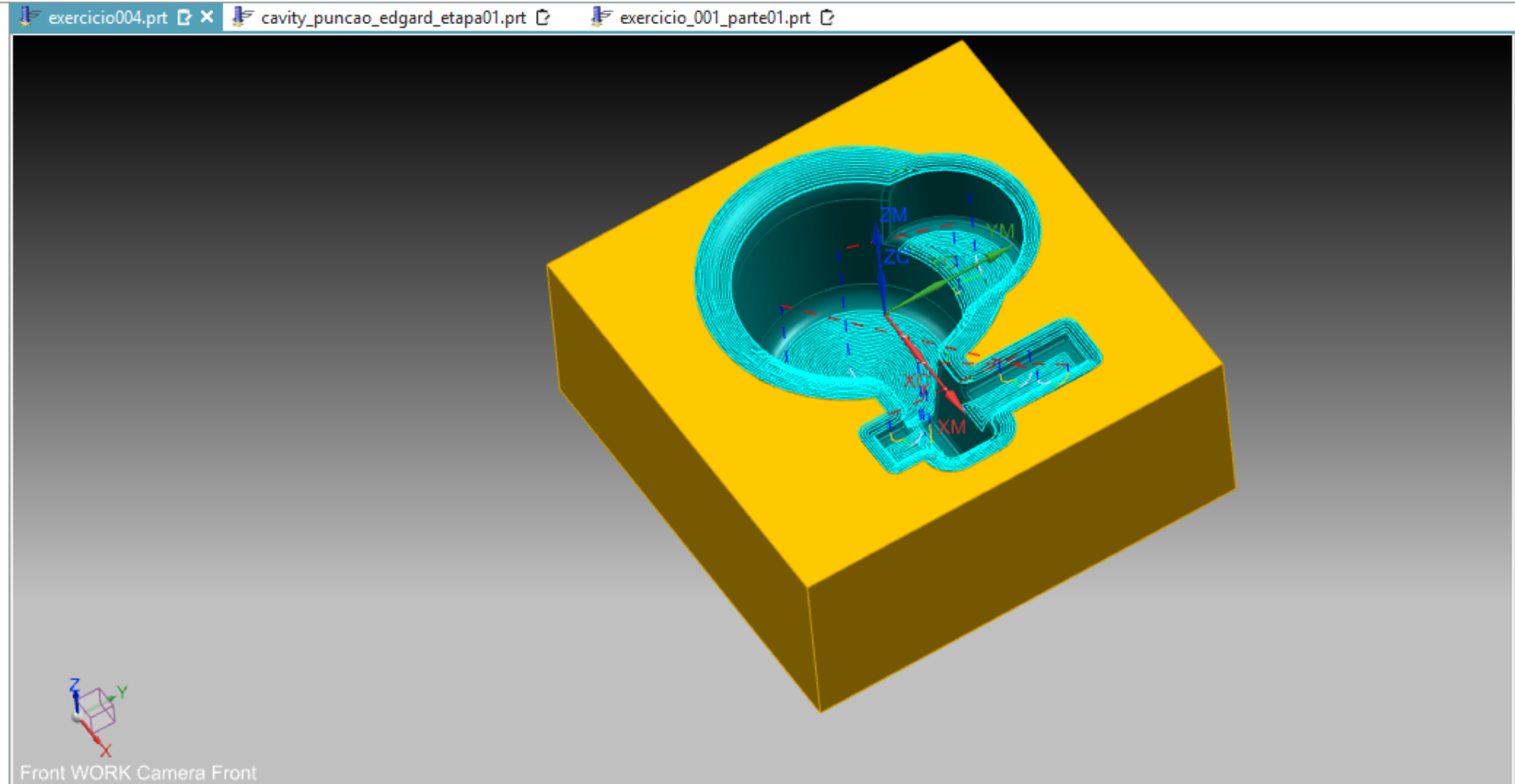
Menu No Selection Filter Entire Assembly

Operation Navigator - Program Order

Name	Toolchange
NC_PROGRAM	
Unused Items	
PROGRAM	
DESBASTE	
REDESBASTE	
ACABAMENTO_PARE	
ACABAMENTO_SUPE...	

Dependencies

Details



File Home As

Create Tool Create Geometry Create Operat

Insert

Menu

Type

mill\_contour

Operation Subtype

Location

Program

Tool

Geometry

Method

Name

STREAMLINE

OK Apply Cancel

Tools Application

Find a Command

Post Process Shop Documentation More

Display Animation

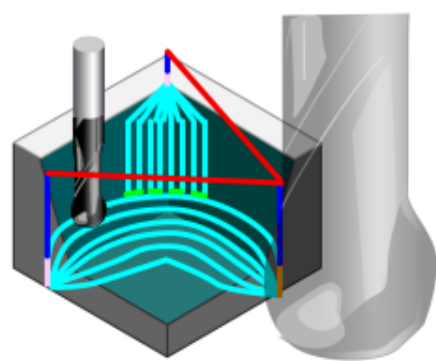
Speed 5

Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt

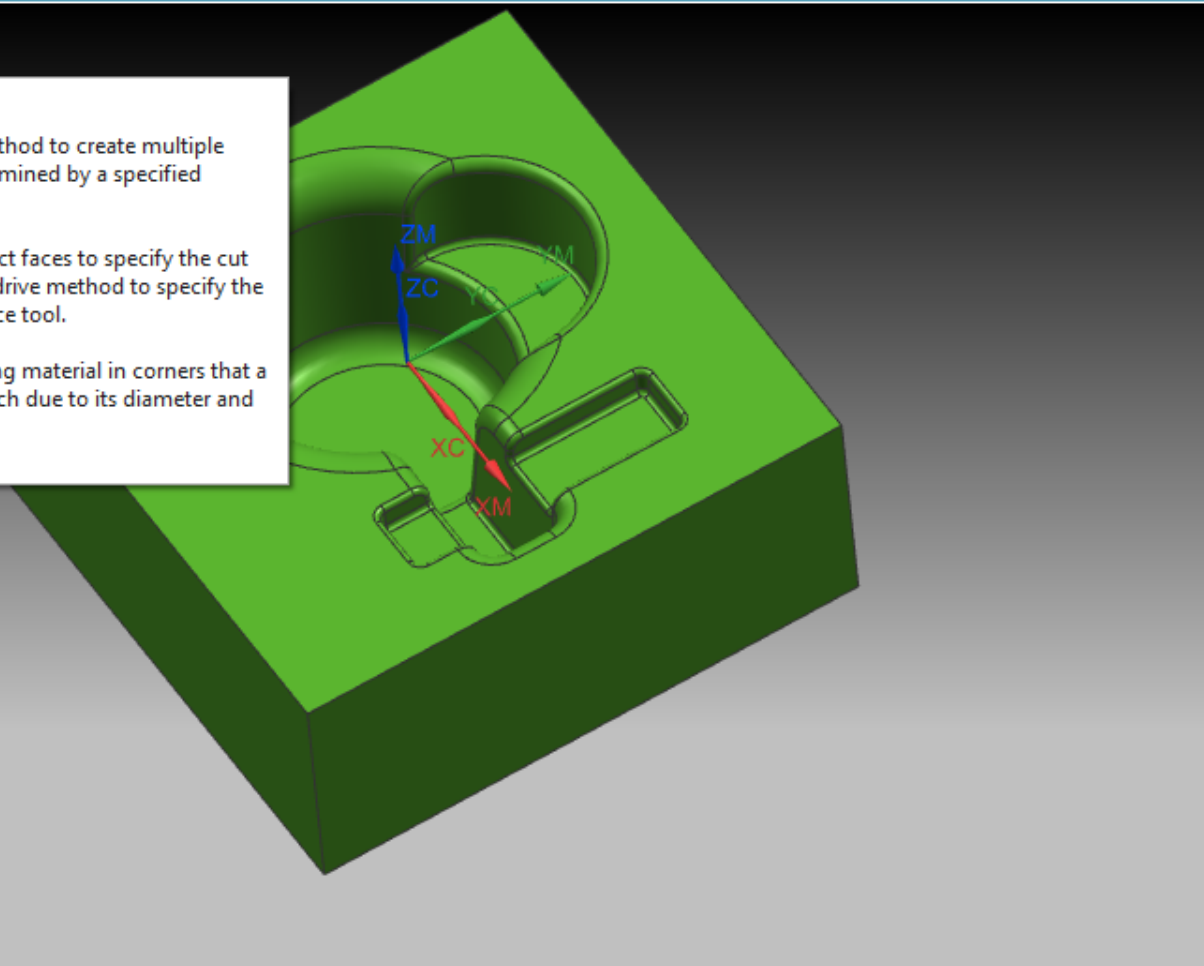


**Flowcut Reference Tool**

Uses the Flow Cut drive method to create multiple passes in a cut region determined by a specified reference tool.

Specify part geometry. Select faces to specify the cut areas if necessary. Edit the drive method to specify the cut pattern and the reference tool.

Recommended for removing material in corners that a previous tool could not reach due to its diameter and corner radius.



Choose type, subtype, location and specify operation name

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu Entire Assem

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
FRESA_6	
FRESA_4	

Dependencies Details

Drive Geometry

Max Concavity 179.0000

Minimum Cut Length 50.0000 %Tool

Merge Distance 50.0000 %Tool

Drive Settings

Flowcut Type Reference Tool Offset:

Steep Containment

Steep Angle 65.0000

Non-steep Cutting

Non-steep Cut Pattern Zig Zag

Cut Direction Mixed

Stepover 10.0000 %Tool

Sequencing Outside-In Alterna

Steep Cutting

Steep Cut Pattern Crosscut Zig

Cut Direction Climb

Steep Cut Direction High to Low

Stepover 10.0000 %Tool

Reference Tool

Reference Tool FRESA\_12 (Milling)

Overlap Distance 1.0000

OK Cancel

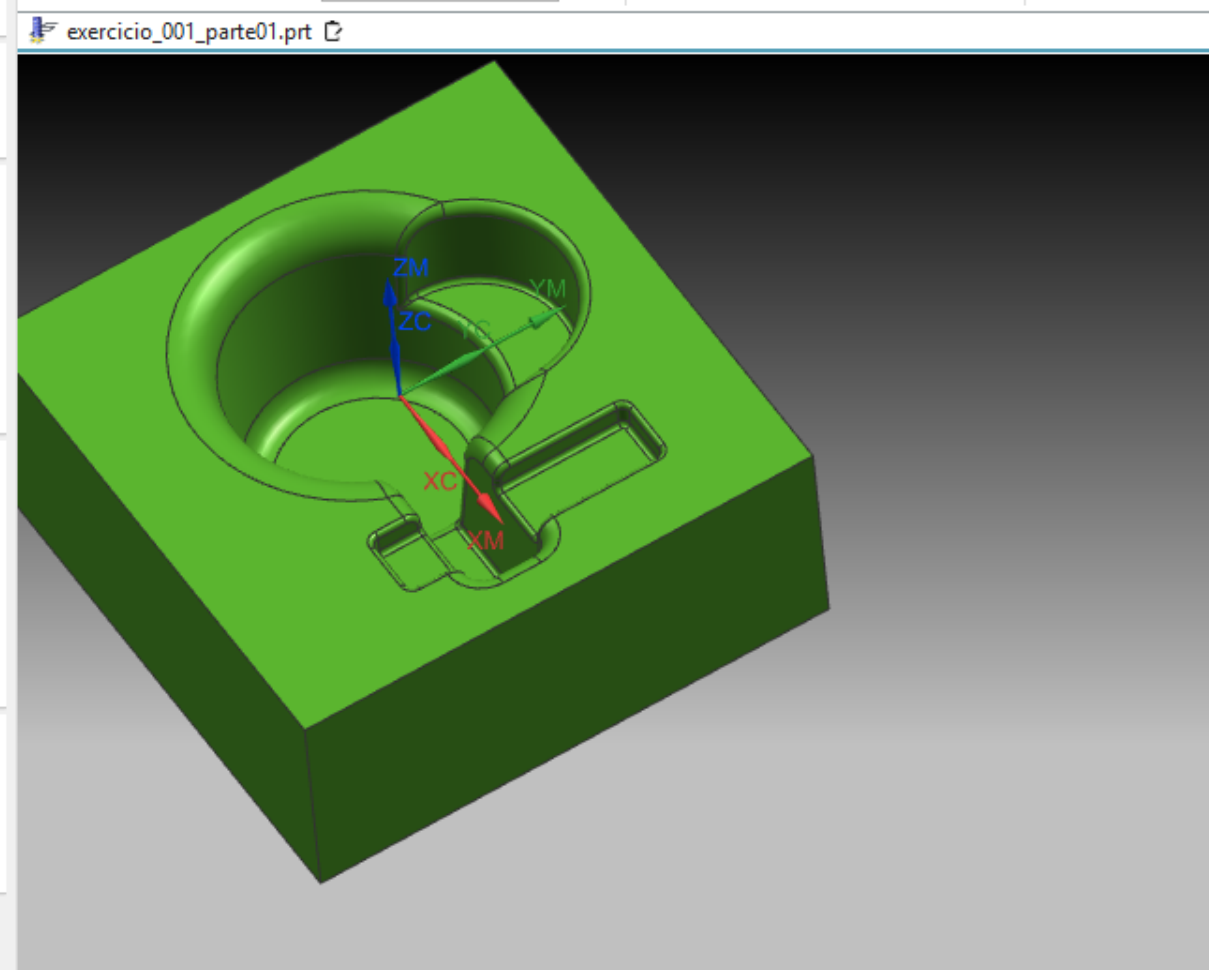
Find a Command

Animation Speed 5

Workpiece Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body



File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

## Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✗
FRESA_6	
ACABAMENTO_RAIO_6MM	✗
FRESA_4	
ACABAMENTO_RAIO_4MM	✗

Dependencies

Details

exercicio004



Front WORK

## Drive Geometry

Max Concavity 179.0000

Minimum Cut Length 50.0000 %Tool

Merge Distance 50.0000 %Tool

## Drive Settings

Flowcut Type Reference Tool Offset:

## Steep Containment

Steep Angle 65.0000

## Non-steep Cutting

Non-steep Cut Pattern Zig Zag

Cut Direction Mixed

Stepover 10.0000 %Tool

Sequencing Outside-In Alterna

## Steep Cutting

Steep Cut Pattern Crosscut Zig

Cut Direction Climb

Steep Cut Direction High to Low

Stepover 10.0000 %Tool

## Reference Tool

Reference Tool FRESA\_8 (Milling)

Overlap Distance 1.0000

OK

Cancel

Find a Command

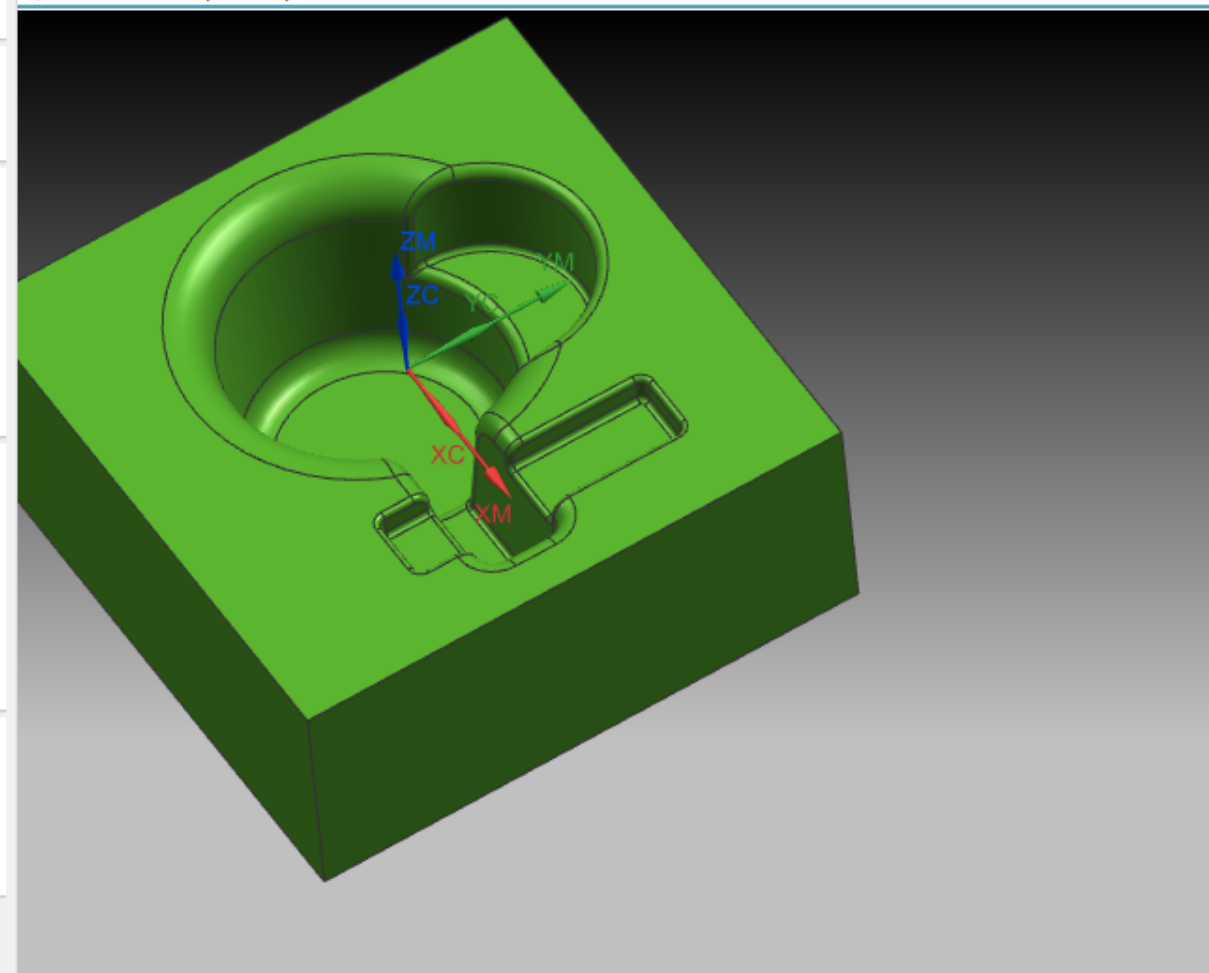
Animation Workpiece

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt



Specify Flow Cut Drive parameters

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu Entire Assem

### Drive Geometry

Max Concavity: 179.0000

Minimum Cut Length: 50.0000 %Tool

Merge Distance: 50.0000 %Tool

### Drive Settings

Flowcut Type: Reference Tool Offset:

### Steep Containment

Steep Angle: 65.0000

### Non-steep Cutting

Non-steep Cut Pattern: Zig Zag

Cut Direction: Mixed

Stepover: 10.0000 %Tool

Sequencing: Outside-In Alterna

### Steep Cutting

Steep Cut Pattern: Crosscut Zig

Cut Direction: Climb

Steep Cut Direction: High to Low

Stepover: 10.0000 %Tool

### Reference Tool

Reference Tool: FRESA\_6 (Milling)

Overlap Distance: 1.0000

OK Cancel

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✗
FRESA_6	
ACABAMENTO_RAIO_6MM	✗
FRESA_4	
ACABAMENTO_RAIO_4MM	✗

Dependencies Details

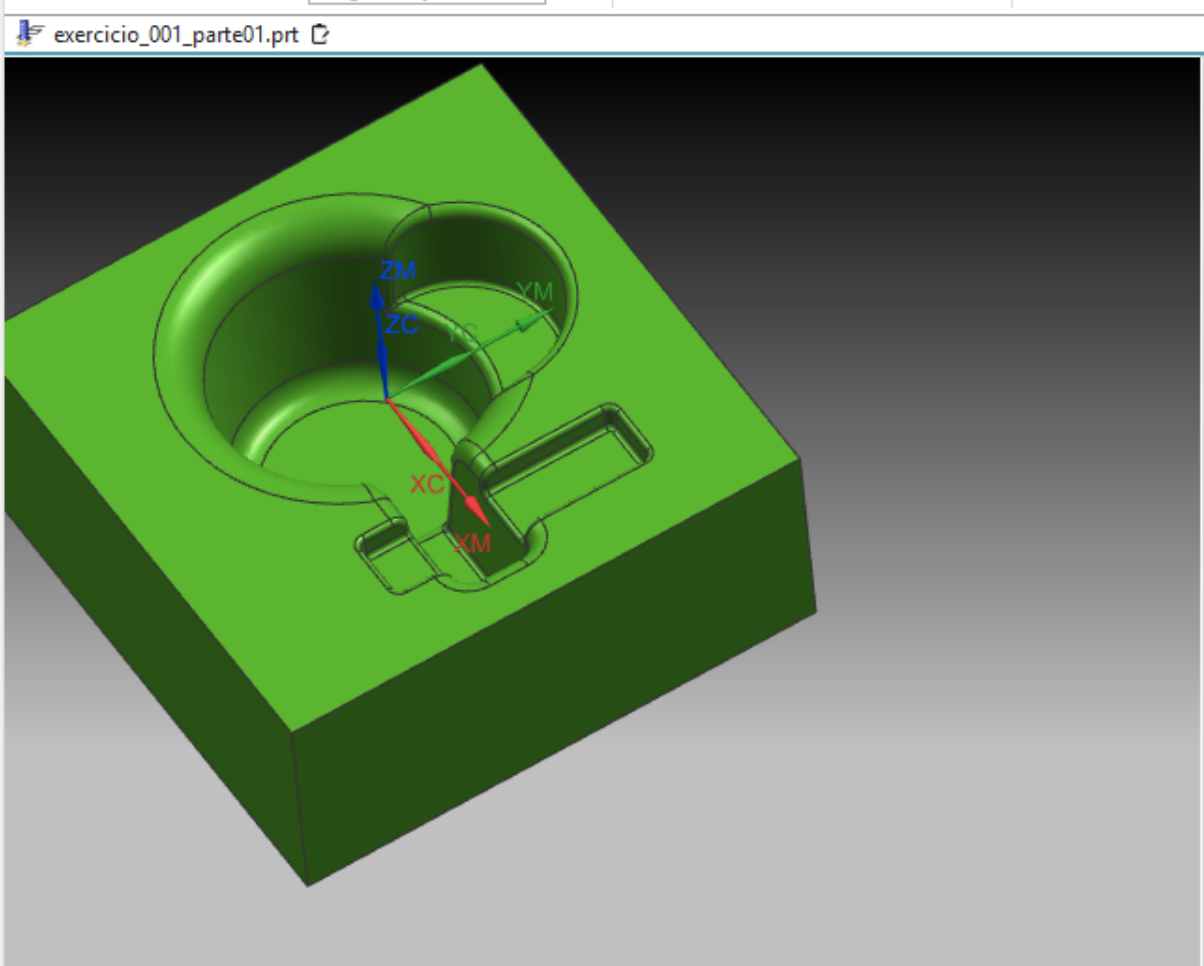
Find a Command

Animation: Speed: 5

Workpiece: Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body



File Home Assemblies Curve Analysis View Render Tools Application

Switch Window Window

Find a Command

SIEMENS

File Home Assemblies Curve Analysis View Render Tools Application

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

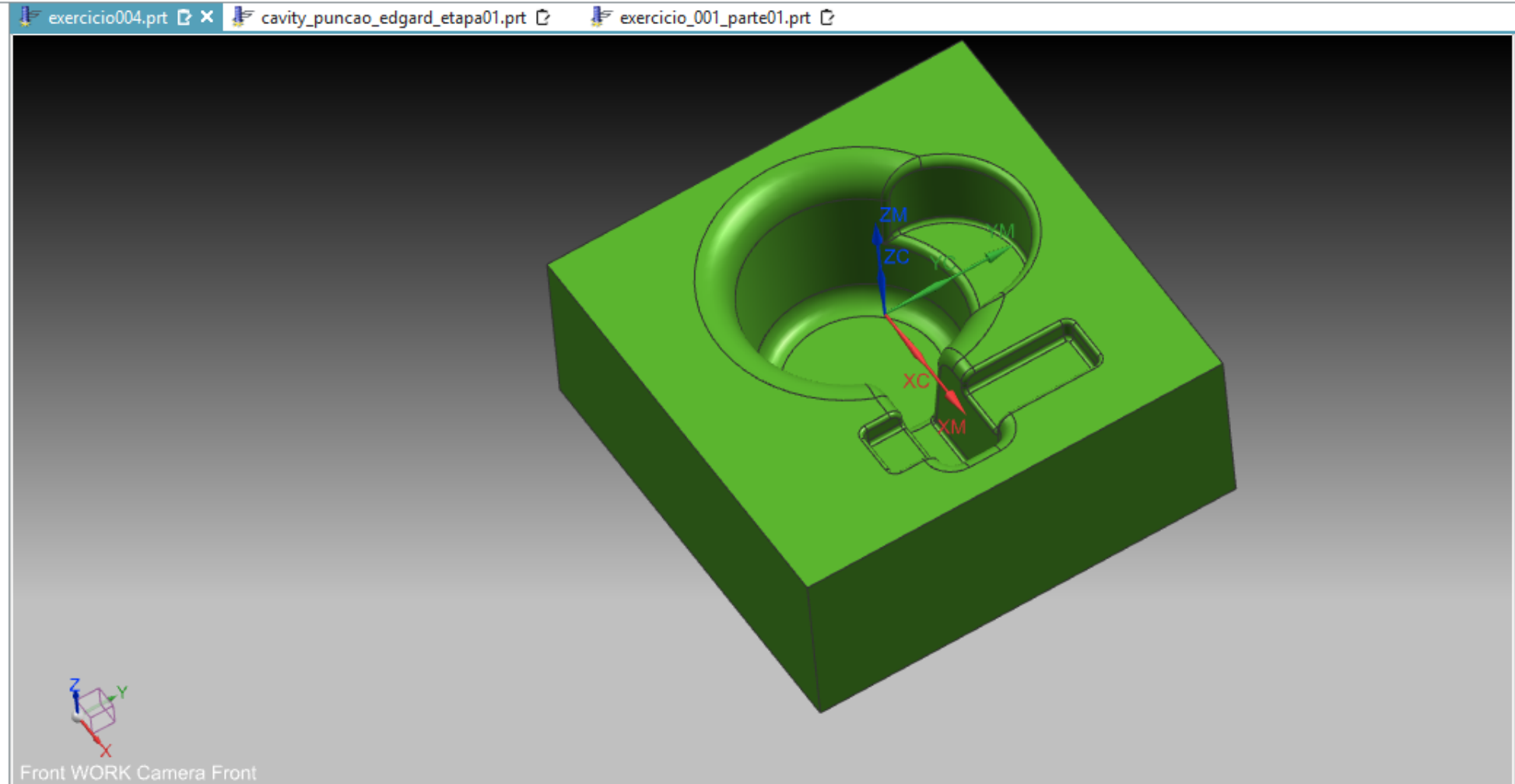
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✗
FRESA_6	
ACABAMENTO_RAIO_6MM	✗
FRESA_4	
ACABAMENTO_RAIO_4MM	✗

Dependencies

Details



SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

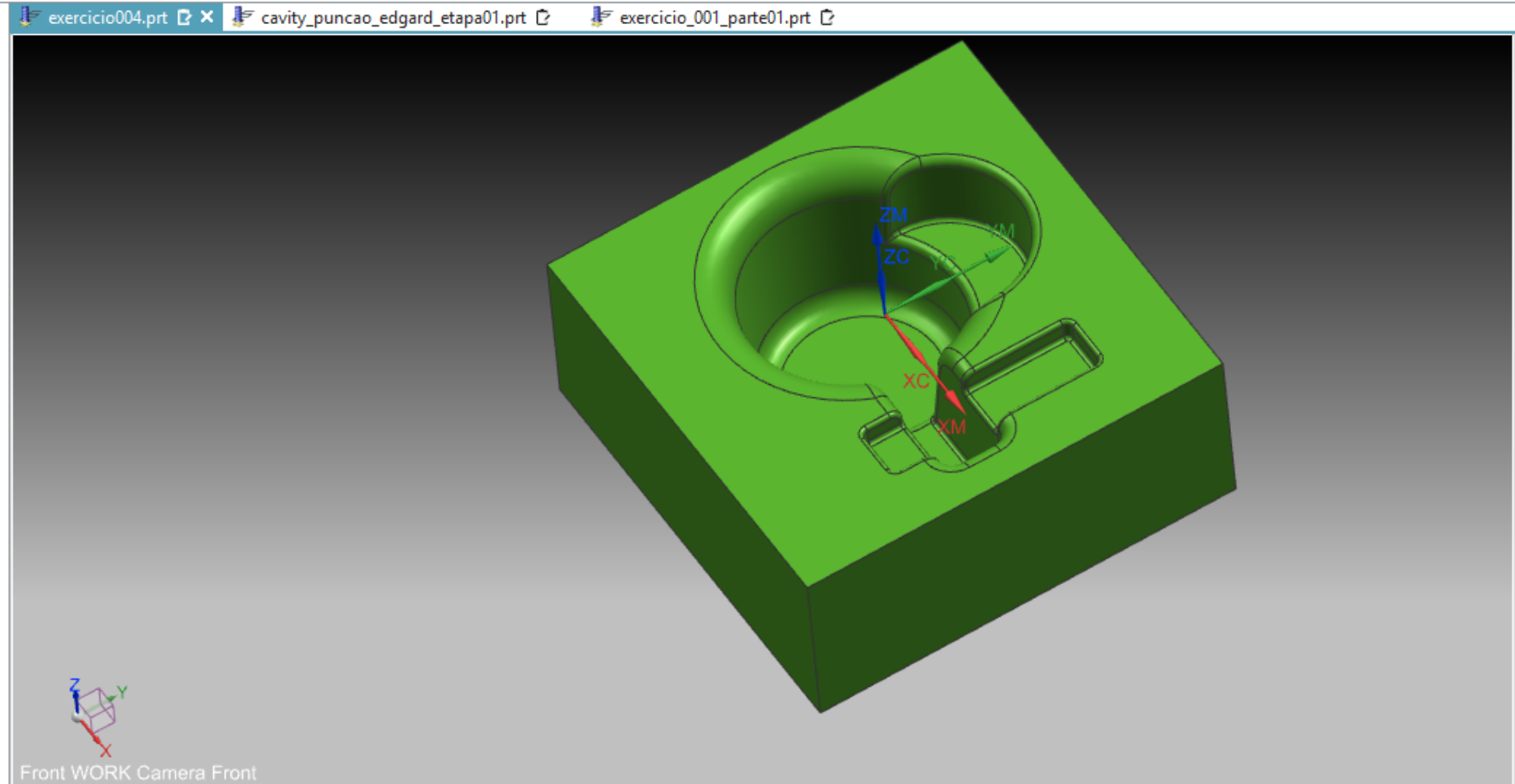
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✗
FRESA_6	
ACABAMENTO_RAIO_6MM	✗
FRESA_4	
ACABAMENTO_RAIO_4MM	✗

Dependencies

Details



File Home Assemblies Curve Analysis View Render Tools Application

Switch Window Window

SIEMENS

Find a Command

Tutorials

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

exercicio004.prt exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt

Generate Tool Path

Paths for the following operations have been generated:

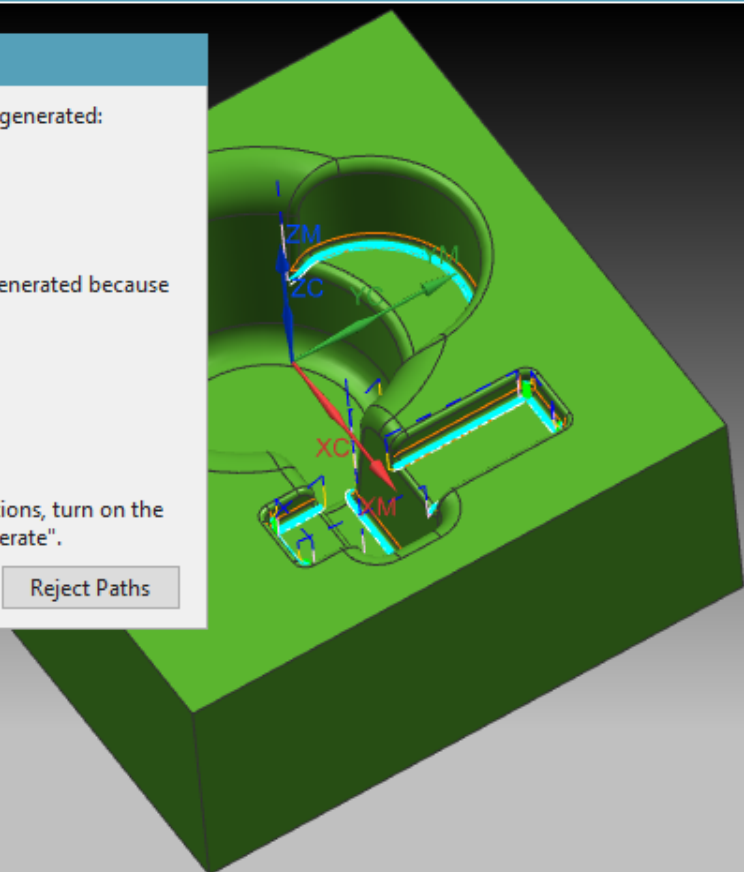
- ACABAMENTO\_RAIO\_8MM
- ACABAMENTO\_RAIO\_6MM
- ACABAMENTO\_RAIO\_4MM

Paths for the following operations were not generated because they are already up to date:

- DESBASTE
- REDESBASTE
- ACABAMENTO\_PAREDES
- ACABAMENTO\_SUPERFICIE

To regenerate tool paths of up-to-date operations, turn on the Customer Default or Preference "Force Regenerate".

Accept Paths Reject Paths



Front WORK Camera Front

CAM Machining Operation ACABAMENTO\_RAIO\_4MM



SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

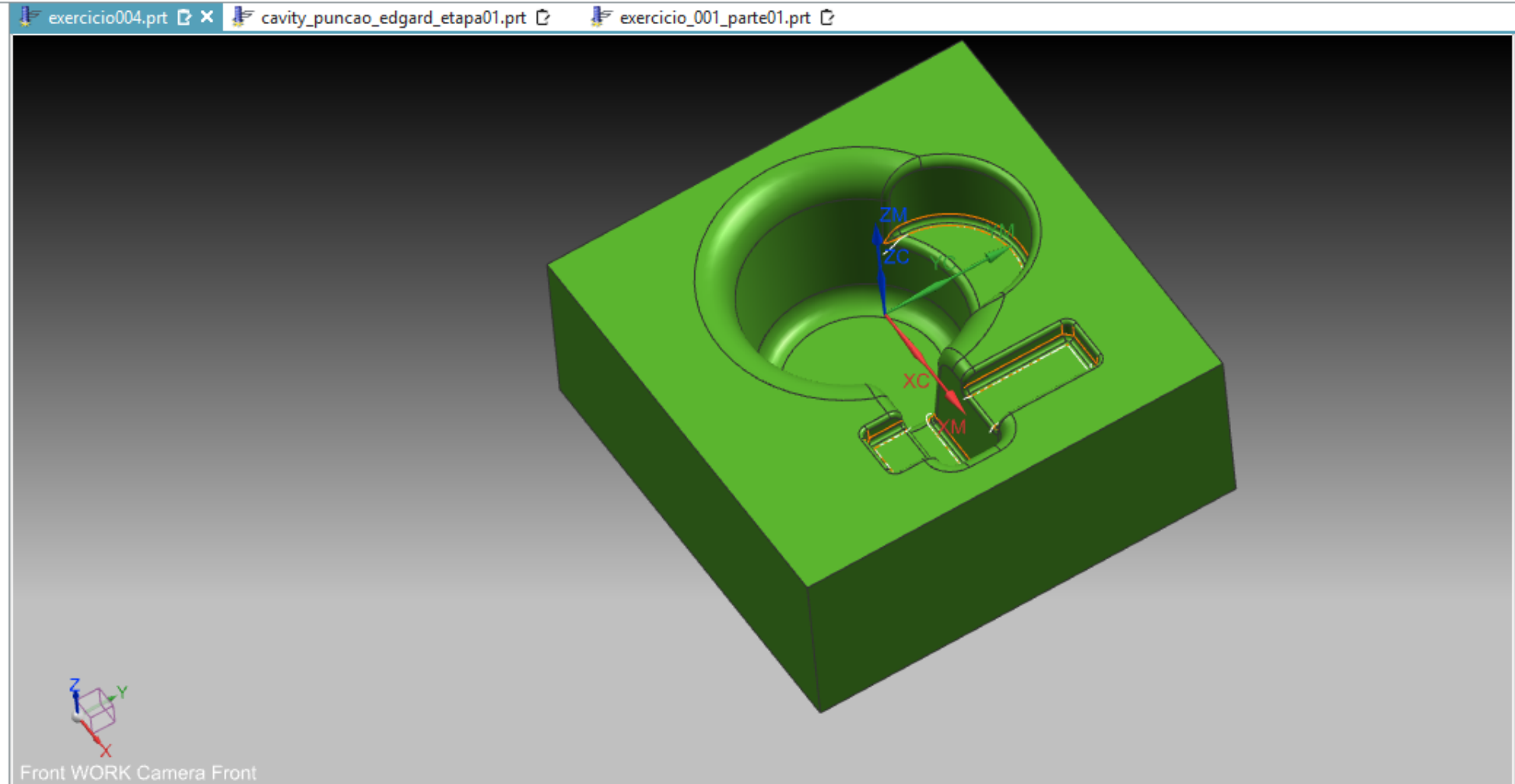
Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓
Dependencies	▼
Details	▼



File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	✓
REDESBASTE	✓
FRESA_12	✓
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	✓
ACABAMENTO_RAIO_8MM	✓
FRESA_6	✓
ACABAMENTO_RAIO_6MM	✓
FRESA_4	✓
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Tool Path Visualization

GOTO/-37.353,-14.136,11.000

1 93

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed 10

OK Cancel

NX 12 - Manufacturing

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Animation Workpiece

exercicio\_001\_parte01.prt

Front WORK

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Tool Path Visualization

1 1 93

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

NX 12 - Manufacturing

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

Front WORK

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

1 1 649

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

NX 12 - Manufacturing

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

ACABAMENTO\_PAREDES

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

1 1 649

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

NX 12 - Manufacturing

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

ACABAMENTO\_PAREDES

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

522

1 522

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

NX 12 - Manufacturing

SIEMENS

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

7.76, y = 31.18, z = 10.00

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

522

1 522

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

NX 12 - Manufacturing

SIEMENS

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

7.76, y = 31.18, z = 10.00

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu Symbol With

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESABASTE	✓
FRESA_16	
REDESABASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies Details

Select object to infer point

Measure Distance

\* Specify Point

Specify Vector

Results

Tool: n.a.  
 Minimal Distance: n.a.  
 Distance along Vector: n.a.  
 Global Thickness: n.a.  
 Air Distance: n.a.

Define Ranges

Number of Ranges: 8

Min/Max Limits: Automatic

Divisions: Automatic

Range Colors and Limits

Maximum	1	0.2384
	2	0.1850
	3	0.1480
	4	0.1110
	5	0.0740
	6	0.0370
	7	0.0000
	8	-0.0370
Minimum		-0.0551

Reset Colors

Settings

OK Apply Cancel

Find a Command

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Animation Workpiece

exercicio\_001\_parte01.prt

0.2385  
 0.1850  
 0.1480  
 0.1110  
 0.07400  
 0.03700  
 0.0  
 -0.03700  
 -0.05514



SIEMENS NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

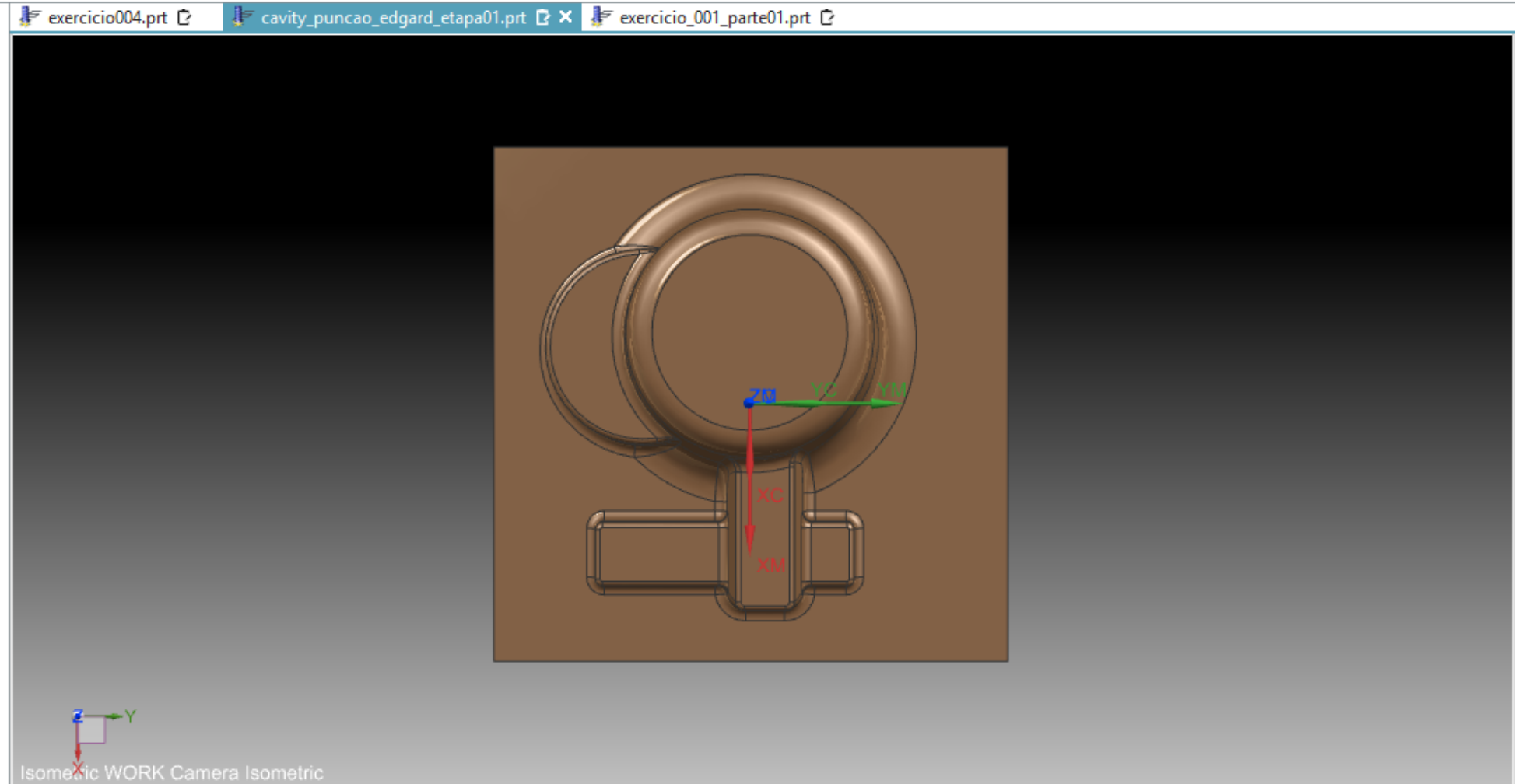
Create Tool   Create Geometry   Create Operation   Properties   Generate Tool Path   Verify Tool Path   Simulate Machine   Post Process   Shop Documentation   More  
 Insert   Actions   Operations   Display   Animation   Workpiece   Analysis   Geometry   Synchronous Modeling   Feature   Tools

Menu   No Selection Filter   Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	□

Dependencies   Details



Edit objects in the Operation Navigator or use Insert to create new objects   CAM Machining Operation ACABAMENTO\_RAIO\_4MM

NX 12 - Manufacturing

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

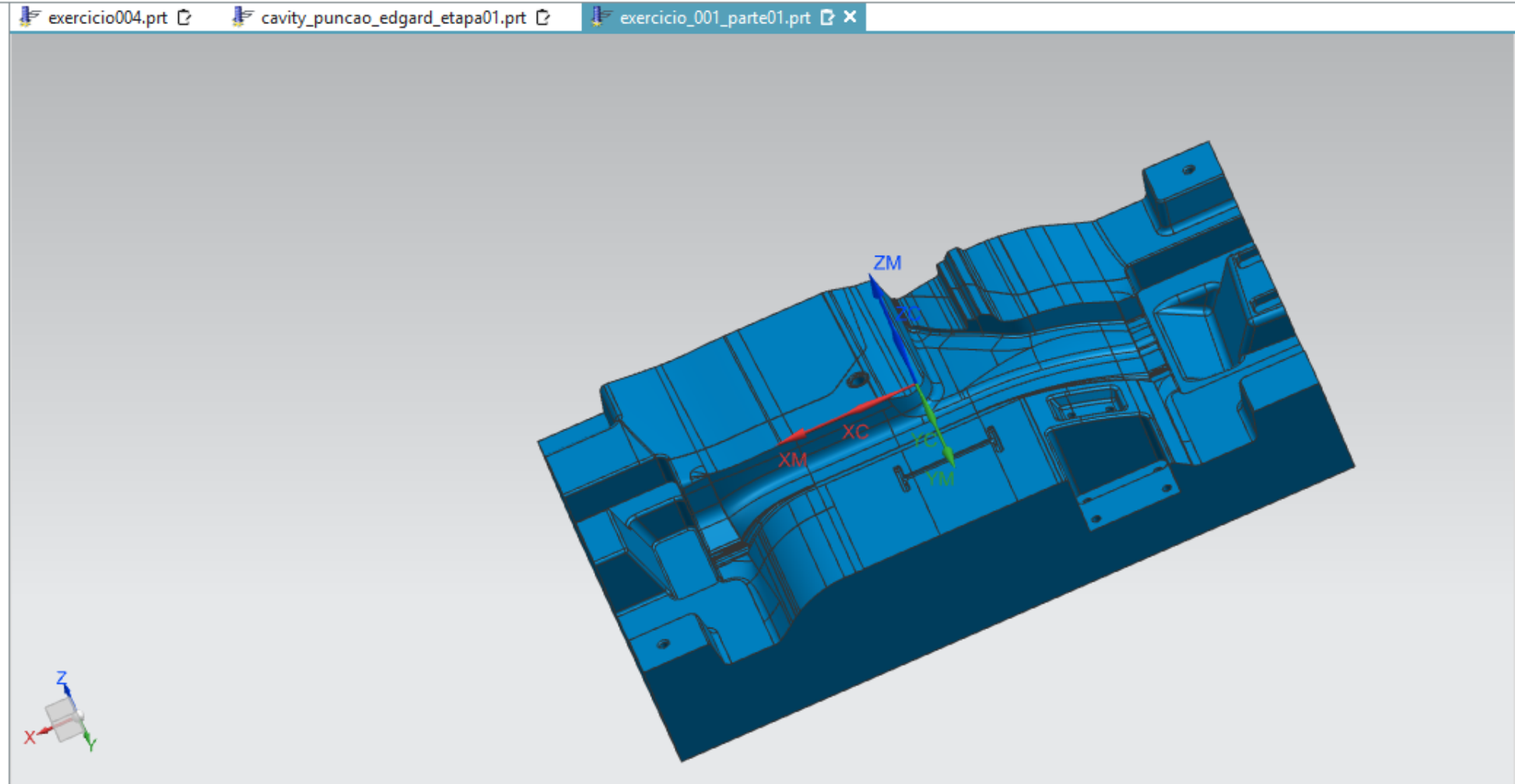
Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
+ FRESA_8	
+ FRESA_6	
+ FRESA_4	
Dependencies	
Details	



Edit objects in the Operation Navigator or use Insert to create new objects

CAM Machining Operation ACABAMENTO\_RAIO\_4MM

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	☐
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

1 1 676

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

NX 12 - Manufacturing

SIEMENS

Find a Command

Speed 5

Animation Workpiece

exercicio\_001\_parte01.prt

13:32 23/05/2018

File Home Assemblies Curve Analysis View Re

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Sim

Insert Actions

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	☐
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓

Dependencies Details

Choose Step or Play to start dynamic material removal

Tool Path Visualization

1 1 676

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

NX 12 - Manufacturing

SIEMENS

Find a Command

Speed 5

Animation Workpiece

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

exercicio\_001\_parte01.prt

ZM ZC YC XC XM

1  
1 676

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

Verify of Path Simulate Machine Post Process Shop Documentation More

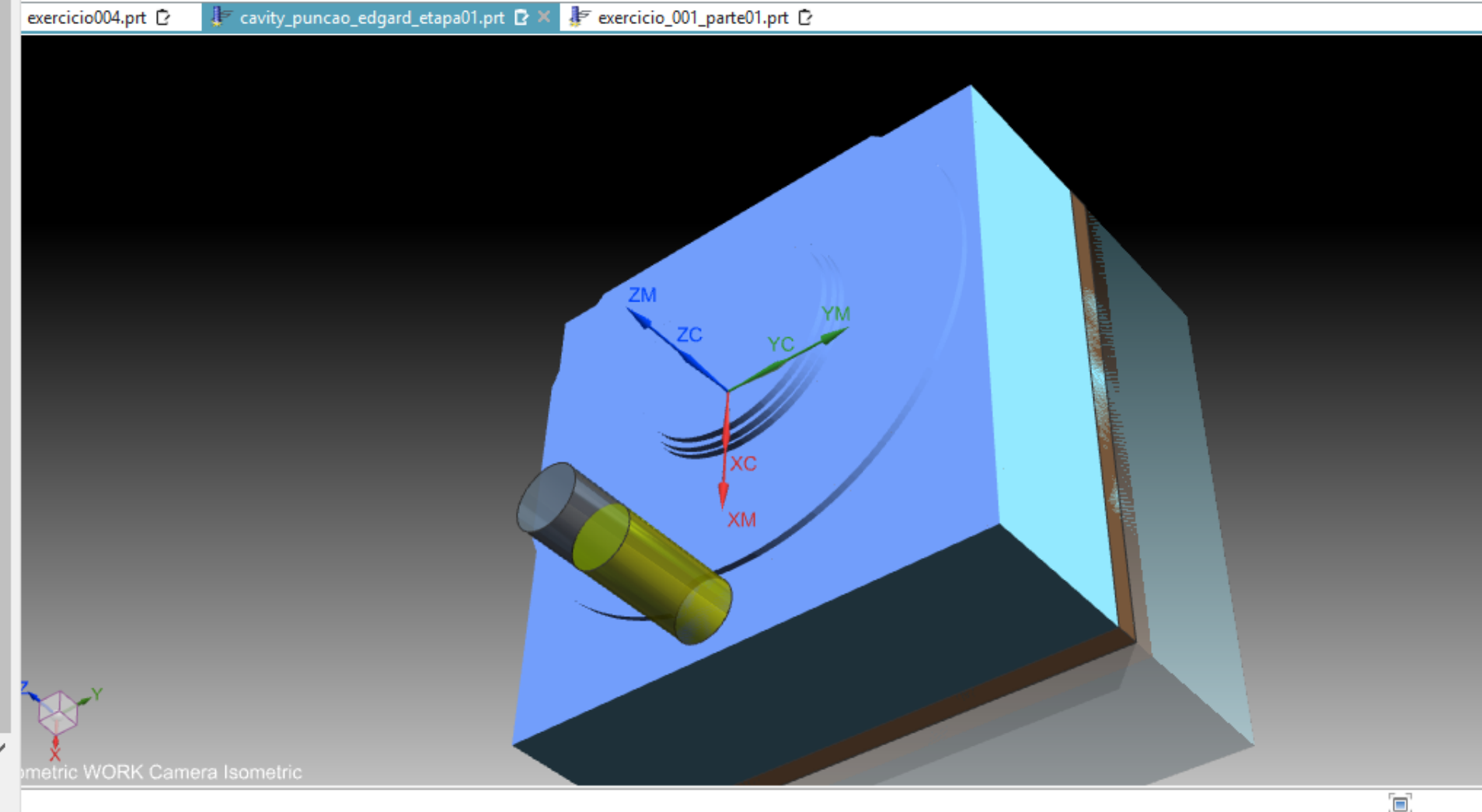
Operations Display Animation Workpiece

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly



1  
1 560

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

Verify of Path Simulate Machine Post Process Shop Documentation More

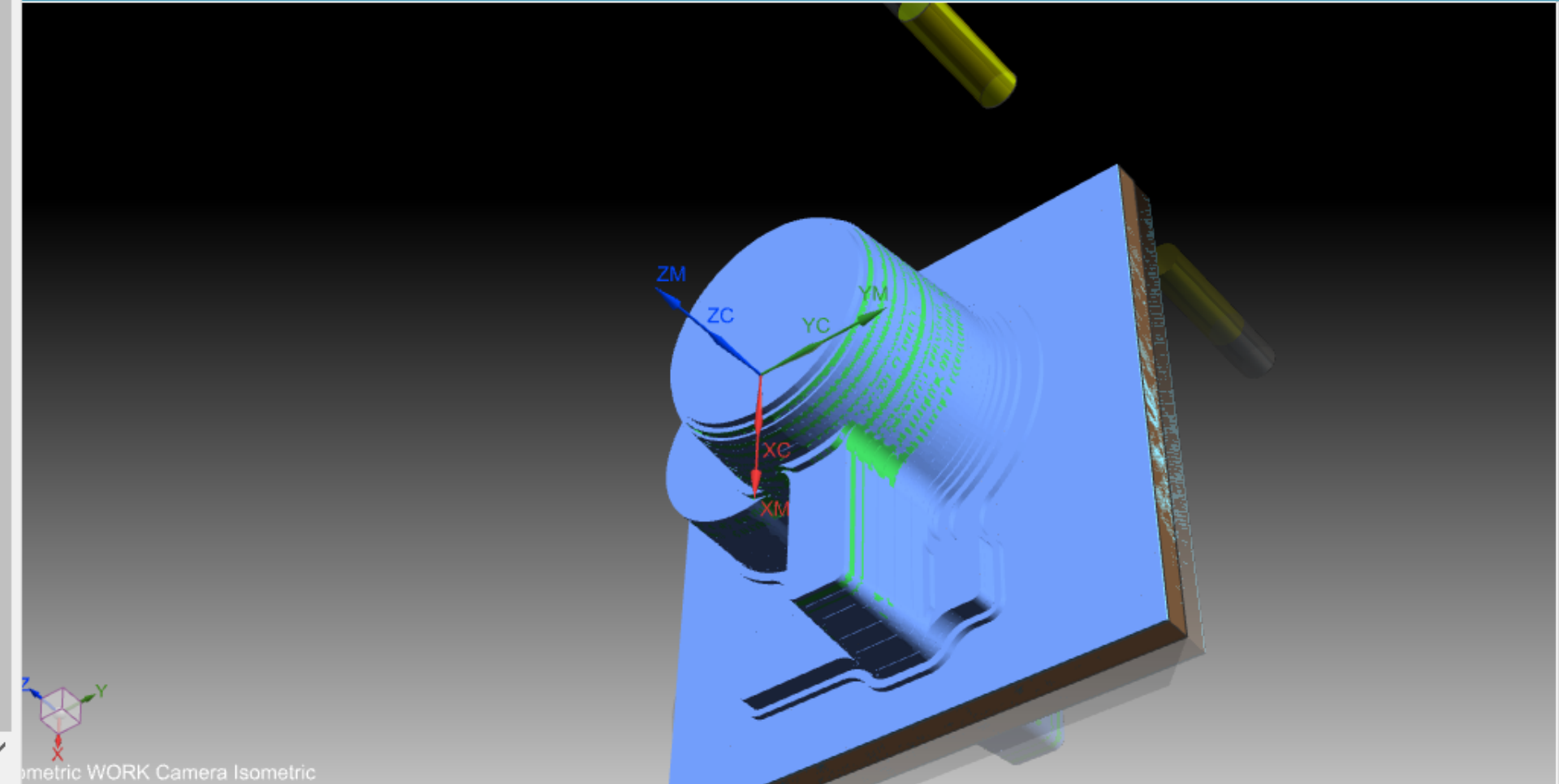
Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



Isometric WORK Camera Isometric

Current operation is REDESABASTE

1  
1 505

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

Verify of Path Simulate Machine Post Process Shop Documentation More

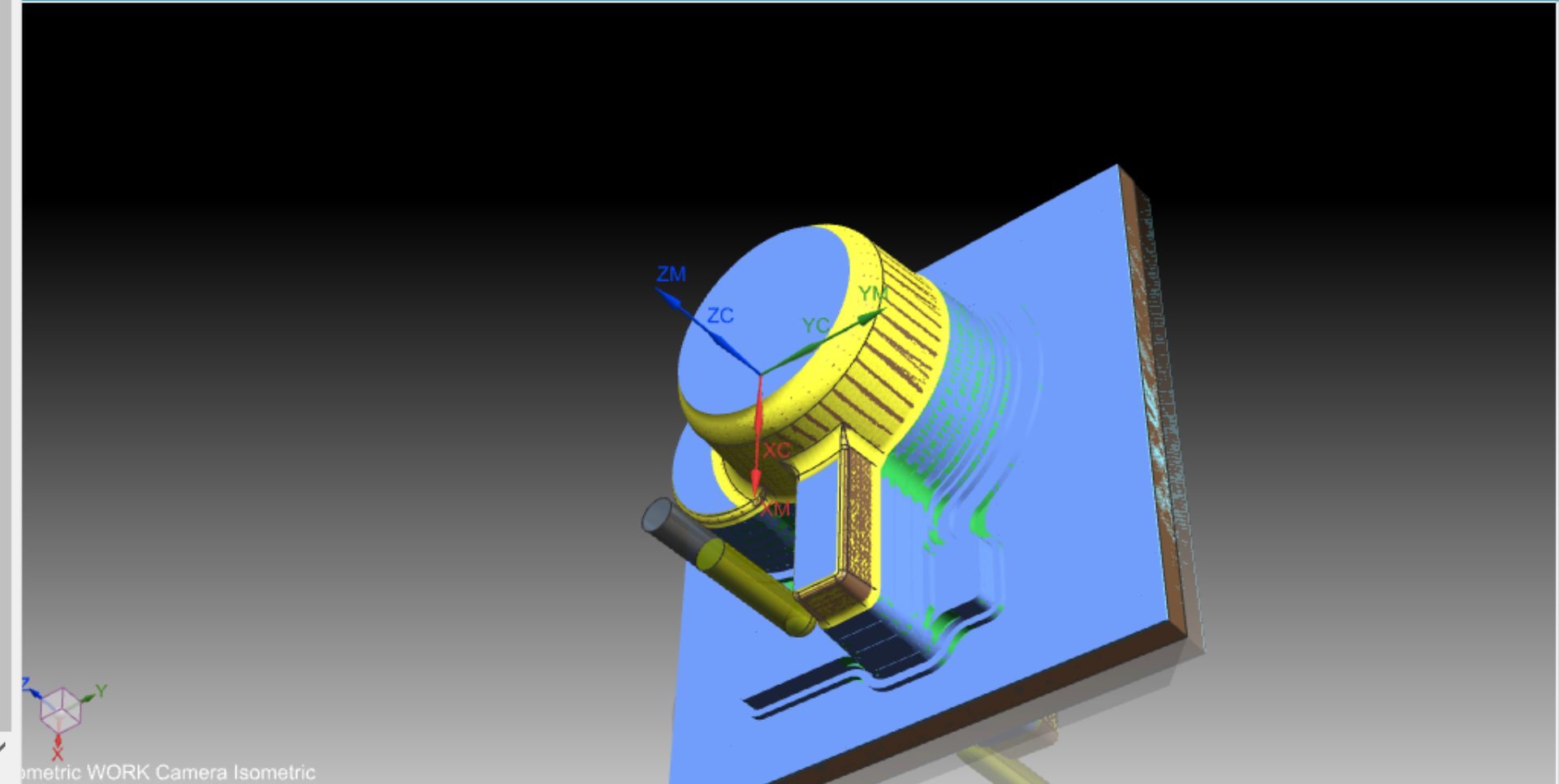
Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



Current operation is ACABAMENTO\_PAREDES

1  
1 1261

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

Verify of Path Simulate Machine Post Process Shop Documentation More

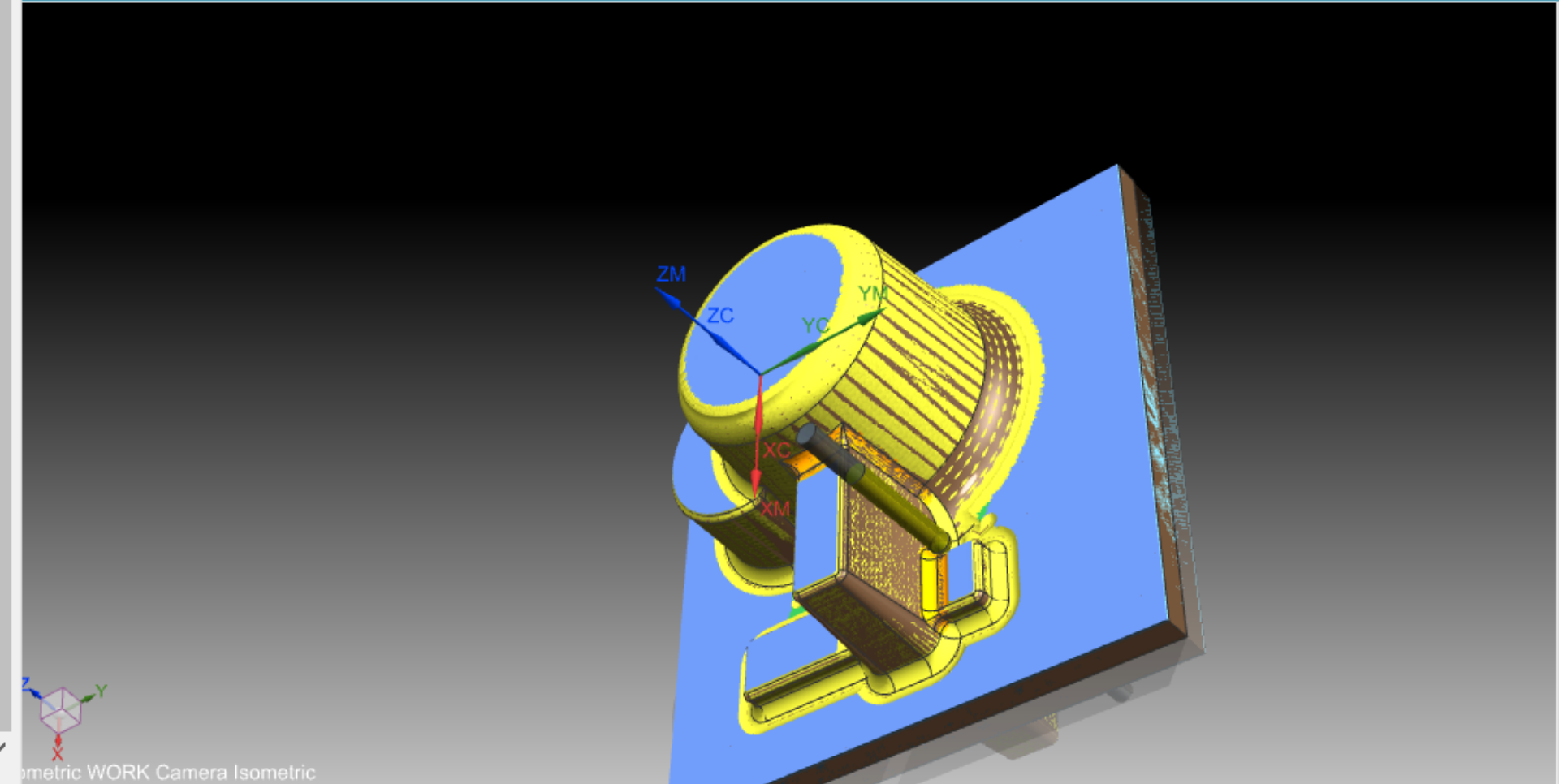
Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



Current operation is ACABAMENTO\_RAIO\_8MM



File 328

1 328

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

Verify of Path Simulate Machine Post Process Shop Documentation More

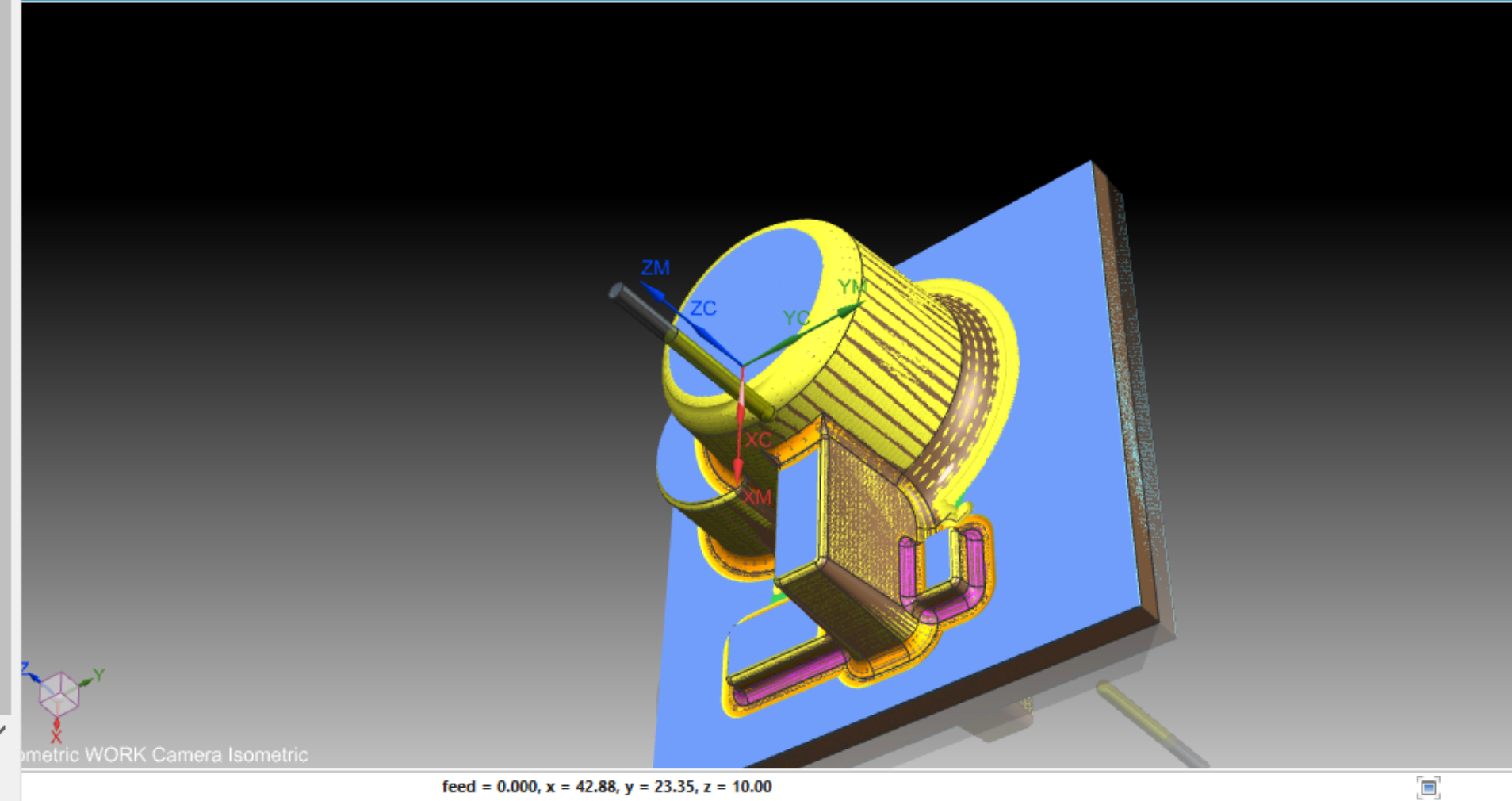
Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



**Measure Distance**

Specify Point

Specify Vector

---

**Results**

Tool: n.a.  
 Minimal Distance: n.a.  
 Distance along Vector: n.a.  
 Global Thickness: n.a.  
 Air Distance: n.a.

---

**Define Ranges**

Number of Ranges:

Min/Max Limits: Automatic

Divisions: Automatic

---

**Range Colors and Limits**

Maximum 1		1.1272
2		0.9000
3		0.7500
4		0.6000
5		0.4500
6		0.3000
7		0.1500
8		0.0000
Minimum		-0.0538

Reset Colors

---

**Settings**

OK Apply Cancel

View Render Tools Application

Find a Command

Verify Tool Path Simulate Machine Post Process Shop Documentation More

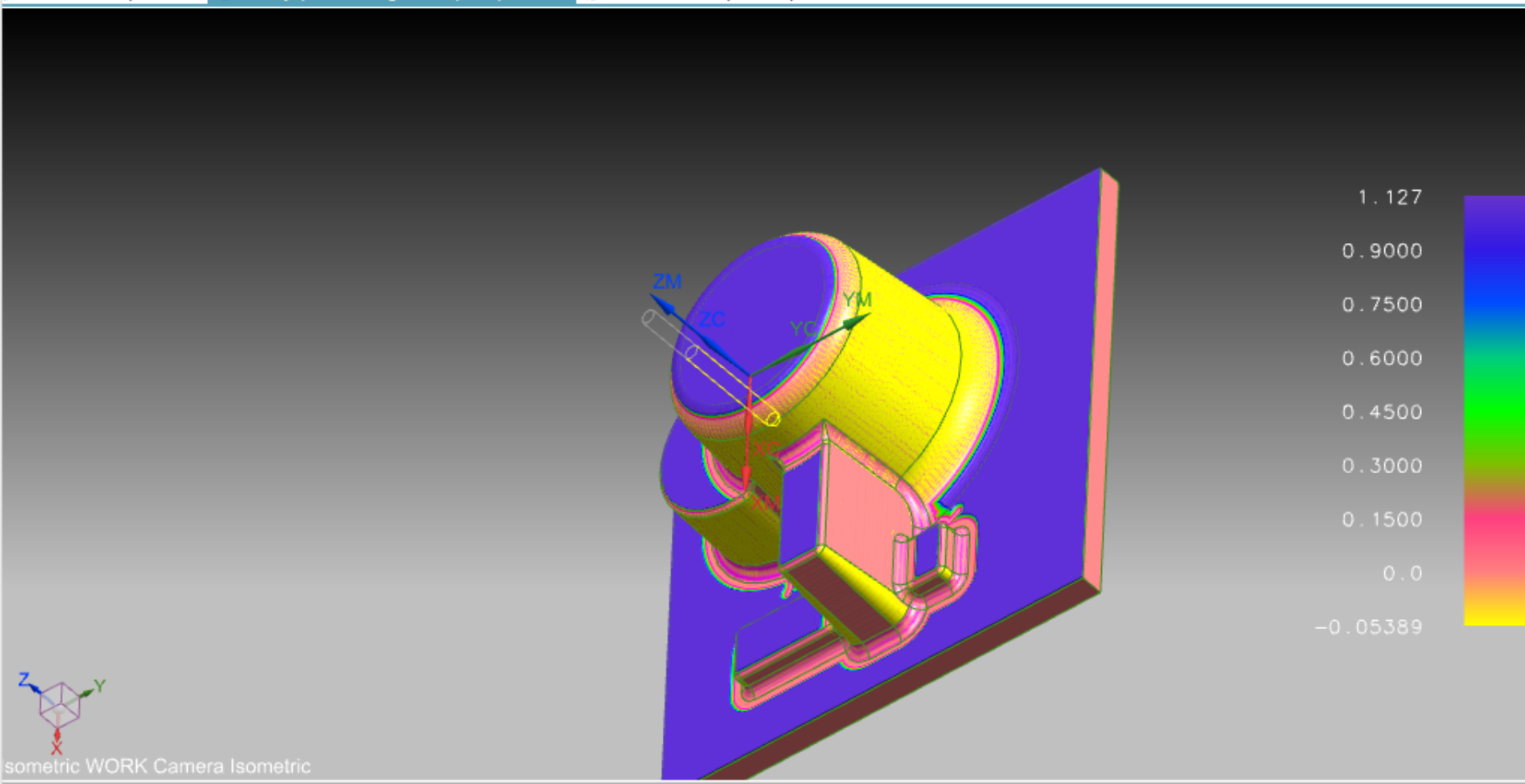
Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Within Work Part O

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



1  
1 4150

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display **Tool**

Tool Path **None**

Number of Motions 10

IPW Resolution **Medium**

Display Options

Enhance IPW Resolution

IPW **None**

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

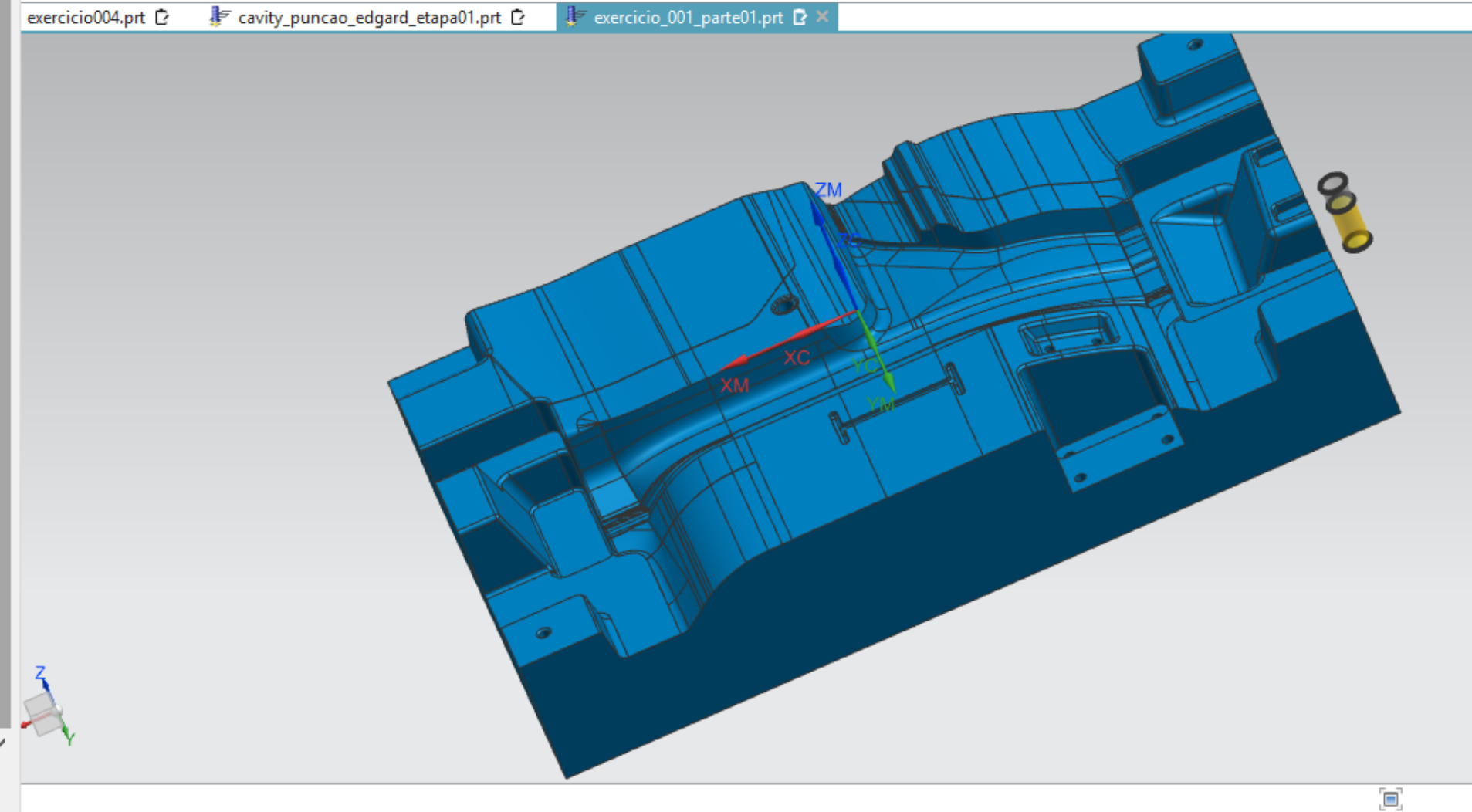
Verify of Path Simulate Machine Post Process Shop Documentation More

Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly



1  
1 4150

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

Render Tools Application

Find a Command

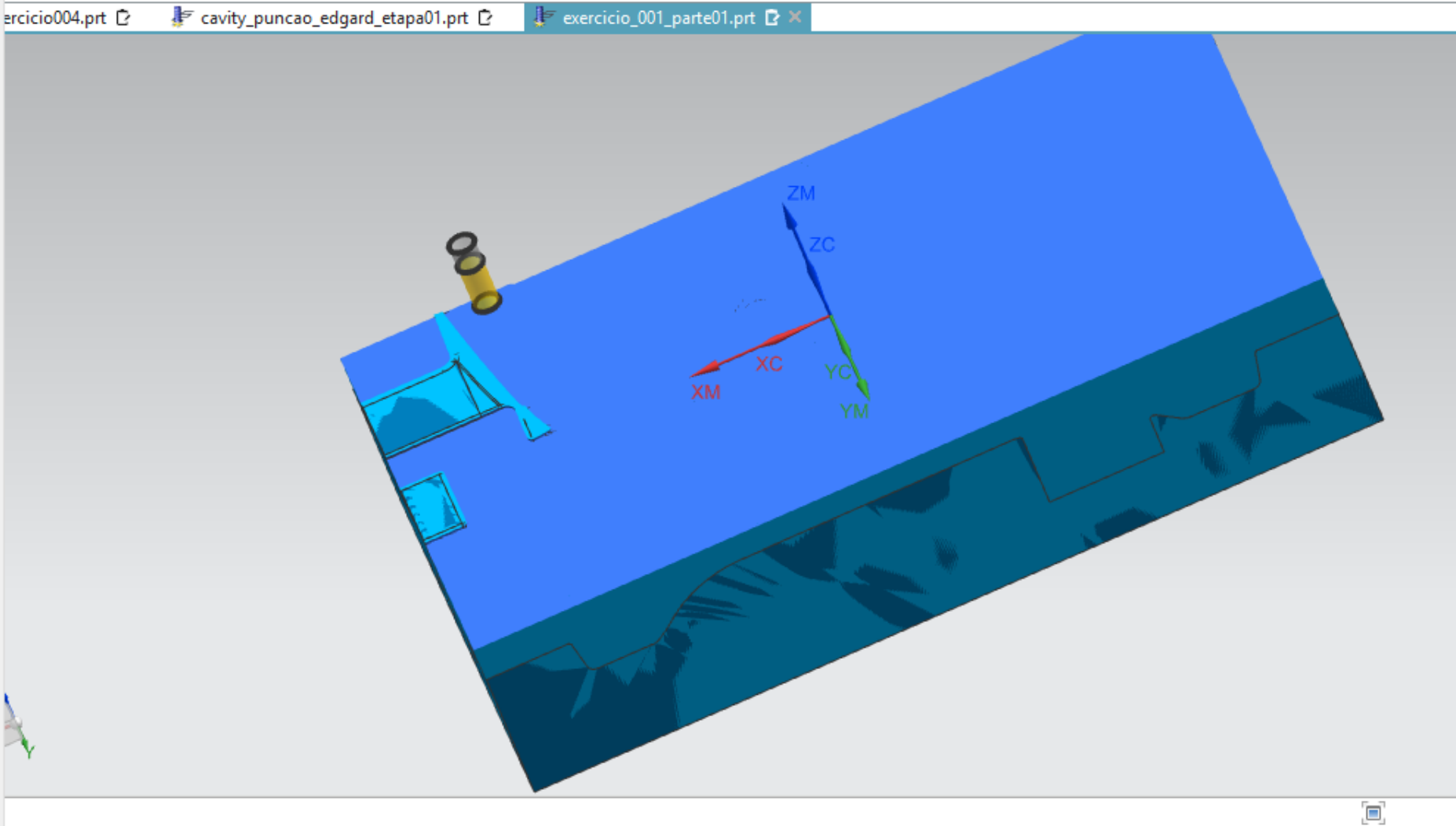
Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Operations Display Animation Workpiece

Within Work Part O



File 3297

1 3297

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

Render Tools Application

Find a Command

Speed 5

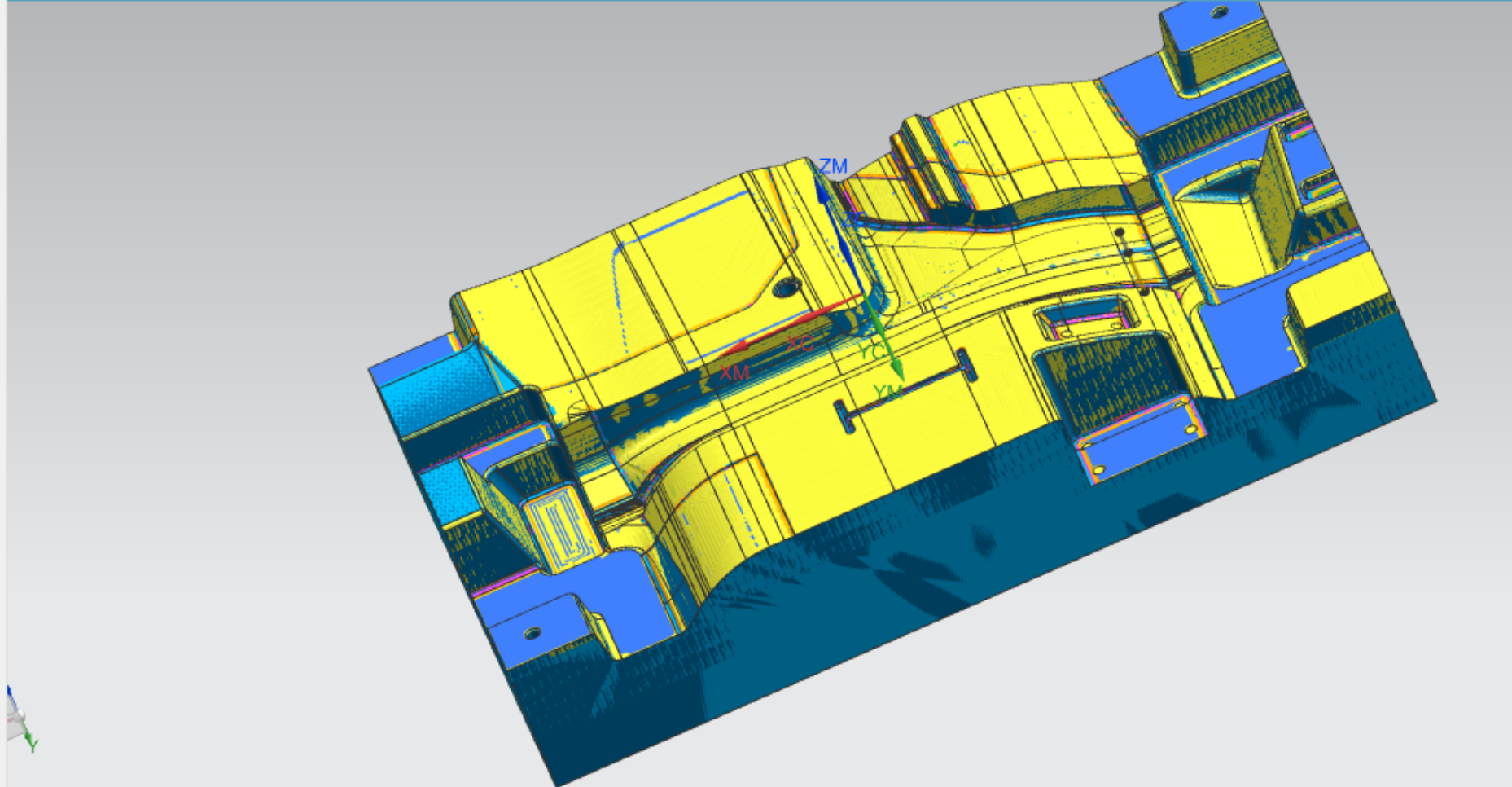
Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Operations Display Animation Workpiece

Within Work Part O

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt



feed = 0.000, x = -229.04, y = 179.79, z = 10.00

**Measure Distance**

\* Specify Point

Specify Vector

---

**Results**

Tool: n.a.  
 Minimal Distance: n.a.  
 Distance along Vector: n.a.  
 Global Thickness: n.a.  
 Air Distance: n.a.

---

**Define Ranges**

Number of Ranges: 8

Min/Max Limits: Automatic

Divisions: Automatic

---

**Range Colors and Limits**

Maximum	1		21.2729
	2		16.2000
	3		13.5000
	4		10.8000
	5		8.1000
	6		5.4000
	7		2.7000
	8		0.0000
Minimum			-0.2895

Reset Colors

---

**Settings**

OK Apply Cancel

View Render Tools Application

Find a Command

Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Within Work Part O

exercicio004.prt cavity\_puncao\_edgard\_etapa01.prt exercicio\_001\_parte01.prt

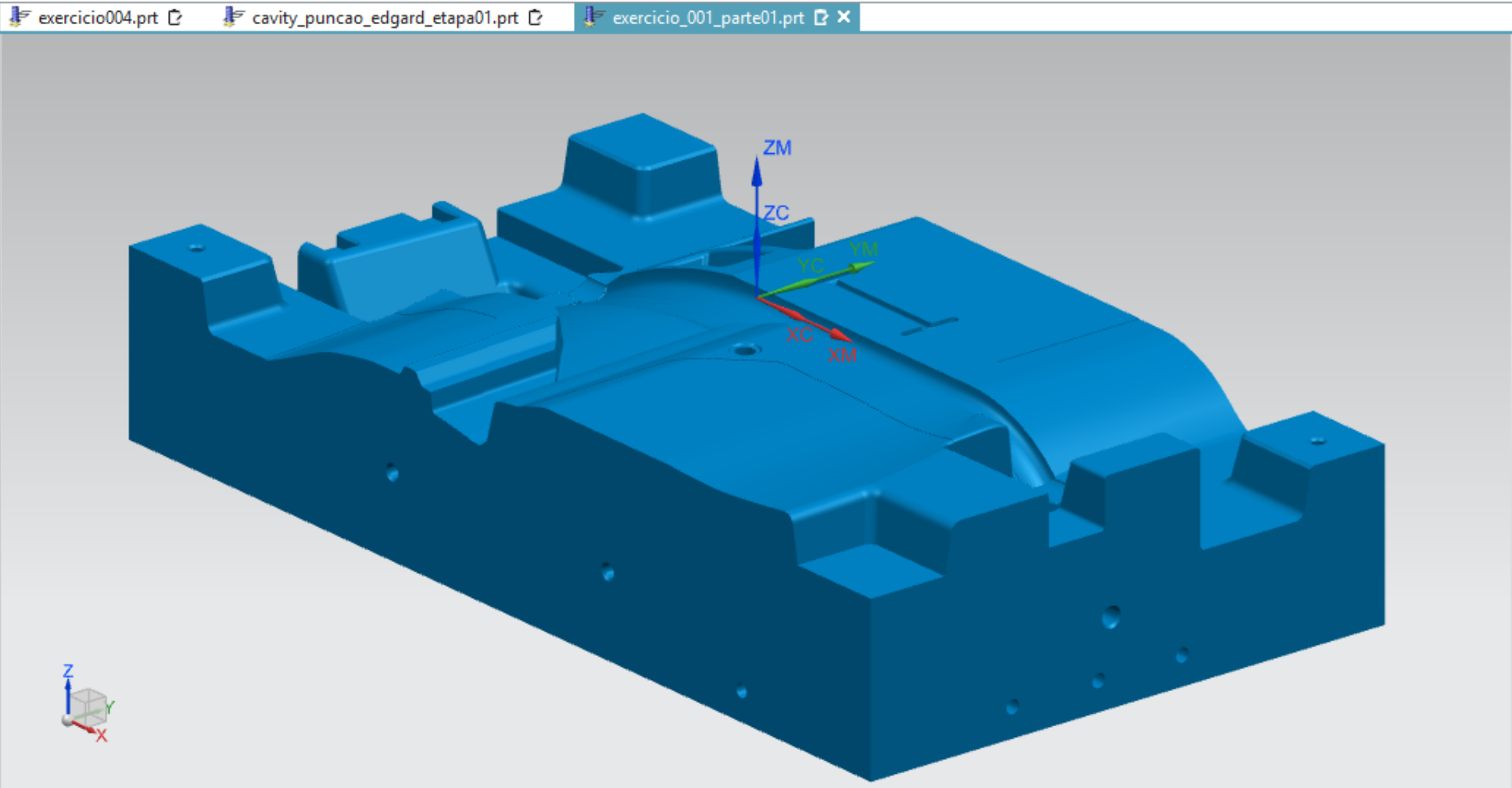
21.27  
16.20  
13.50  
10.80  
8.10  
5.40  
2.70  
0.0  
-0.2895

X Y Z

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓

[Dependencies](#) ▼  
[Details](#) ▼



File Home Assen

Create Tool Create Geometry Create Operation

Insert

Menu

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Drafting Text

Operation Navigator - M

Name

GENERIC\_MACHINE

- Unused Items
- FRESA\_25
- DESBASTE
- FRESA\_16
- REDESBAS
- FRESA\_12
- ACABEME
- ACABAME
- FRESA\_8
- ACABAME
- FRESA\_6
- ACABAME
- FRESA\_4
- ACABAME
- LAPIS

Dependencies

Details

Drive Method

Method Text

Projection Vector

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Text Depth 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

OK Cancel

Application

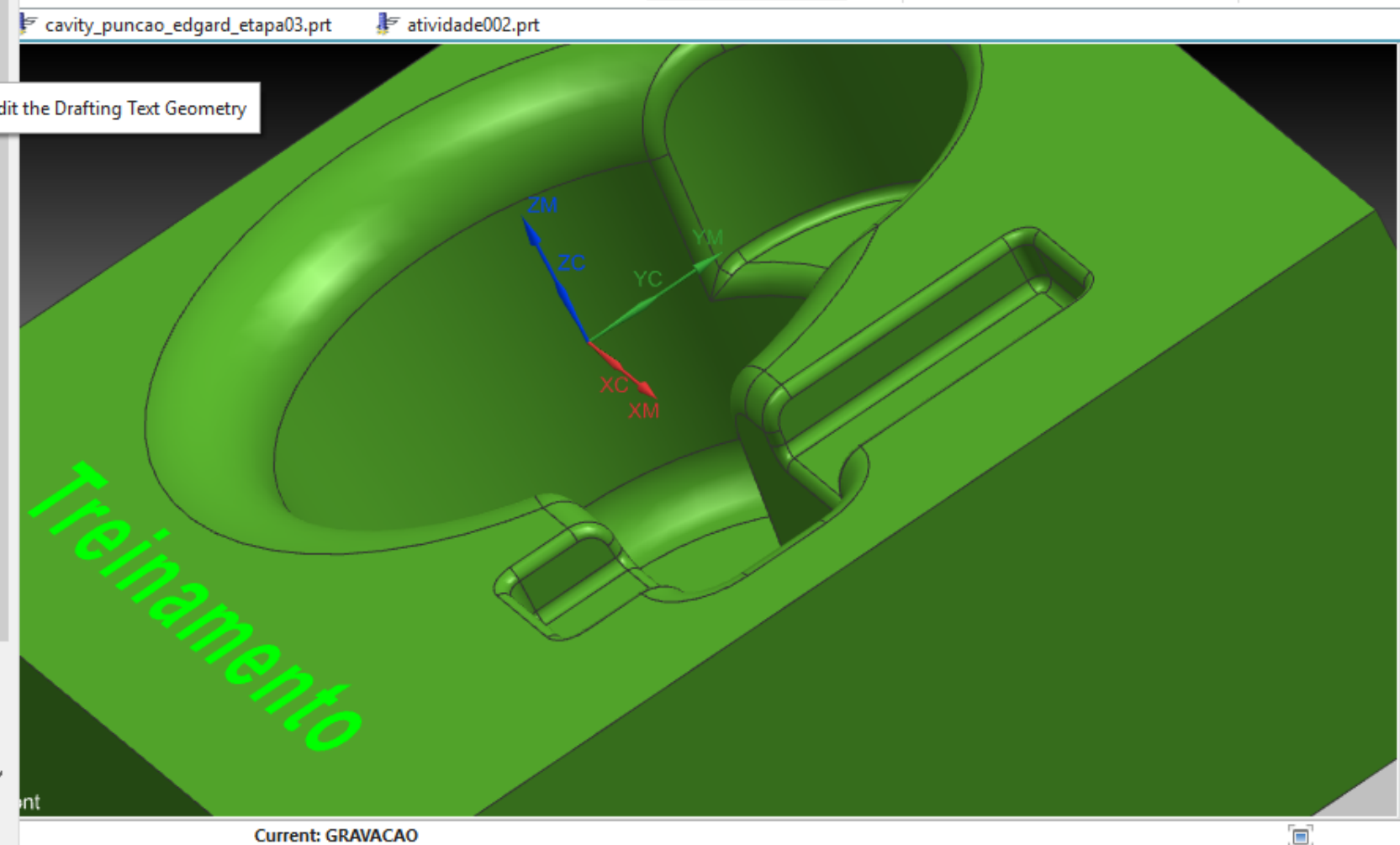
Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed 5

Show 3D IPW

Single Face Single Curve Single Body

cavity\_puncao\_edgard\_etapa03.prt atividade002.prt





File Home Assen

Create Tool Create Geometry Create Operation

Insert

Menu

Remove Append

Information

Reselect All

Current Geometry

OK Back Cancel

Tools Application

Find a Command

Speed 5

Animation

Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body

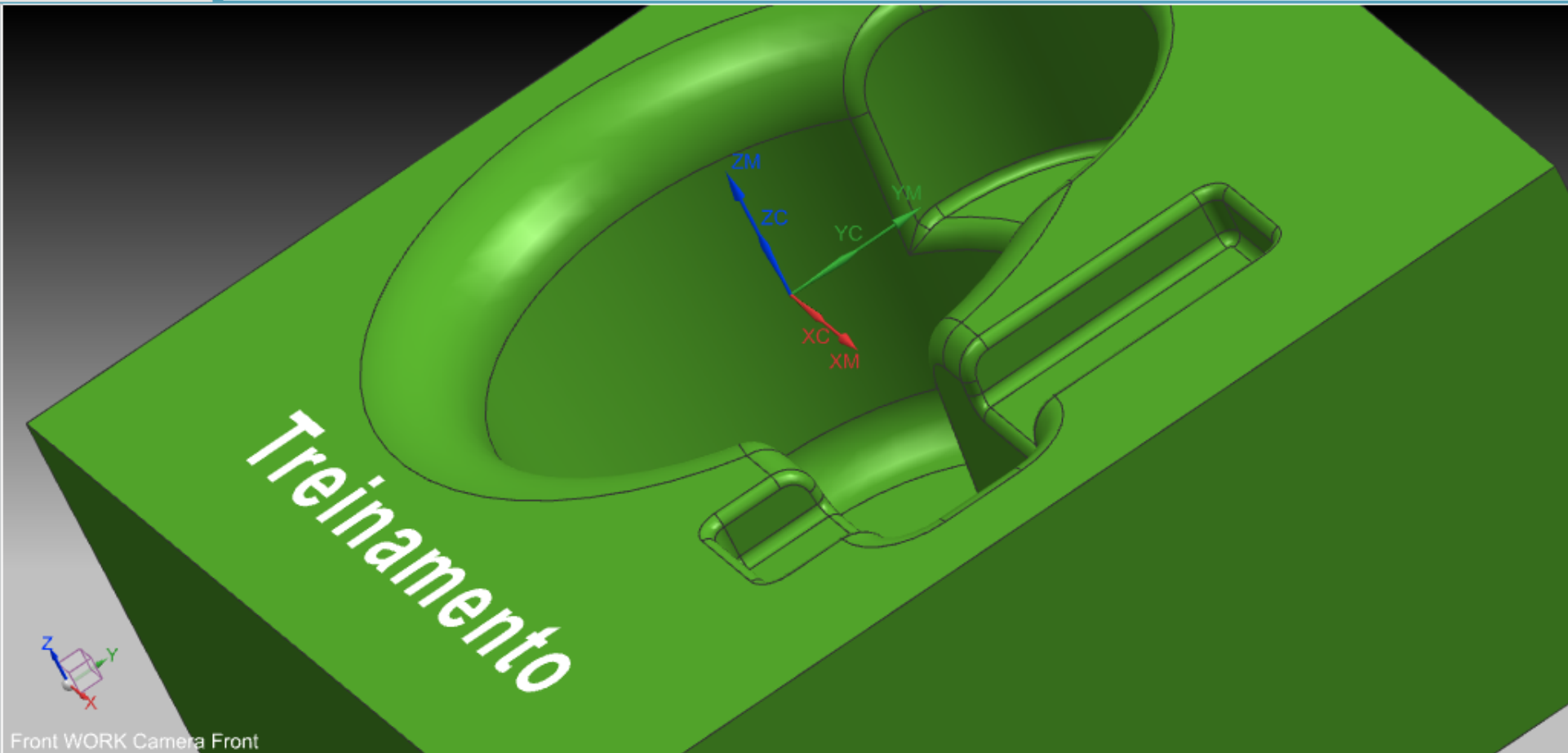
cavity\_puncao\_edgard\_etapa03.prt atividade002.prt

Operation Navigator - M

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
LAPIS	

Dependencies

Details



Edit Text Geometry Current: GRAVACAO

File Home Assen

Create Tool Create Geometry Create Operation

Insert

Menu

Operation Navigator - M

Name

GENERIC\_MACHINE

Unused Items

- FRESA\_25
- DESBASTE
- FRESA\_16
- REDESBAS
- FRESA\_12
- ACABEME
- ACABAME
- FRESA\_8
- ACABAME
- FRESA\_6
- ACABAME
- FRESA\_4
- ACABAME
- LAPIS

Dependencies

Details

Specify parameters

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Drafting Text

Drive Method

Method Text

Projection Vector

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Text Depth 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

OK Cancel

Application

Find a Command

Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed 5

Show 3D IPW

Single Face Single Curve Single Body

cavity\_puncao\_edgard\_etapa03.prt atividade002.prt

Treinamento

Current: GRAVACAO

File Home Assen

Create Tool Create Geometry Create Operation

Insert

Menu

Operation Navigator - M

Name

- GENERIC\_MACHINE
- Unused Items
- FRESA\_25
- DESBASTE
- FRESA\_16
- REDESBAS
- FRESA\_12
- ACABAME
- ACABAME
- FRESA\_8
- ACABAME
- FRESA\_6
- ACABAME
- FRESA\_4
- ACABAME
- LAPIS
- GRAVACAC

Dependencies

Details

Specify Check

Specify Cut Area

Specify Drafting Text

Drive Method

Method: Text

Projection Vector

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Text Depth: 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

Actions

Generate OK Cancel

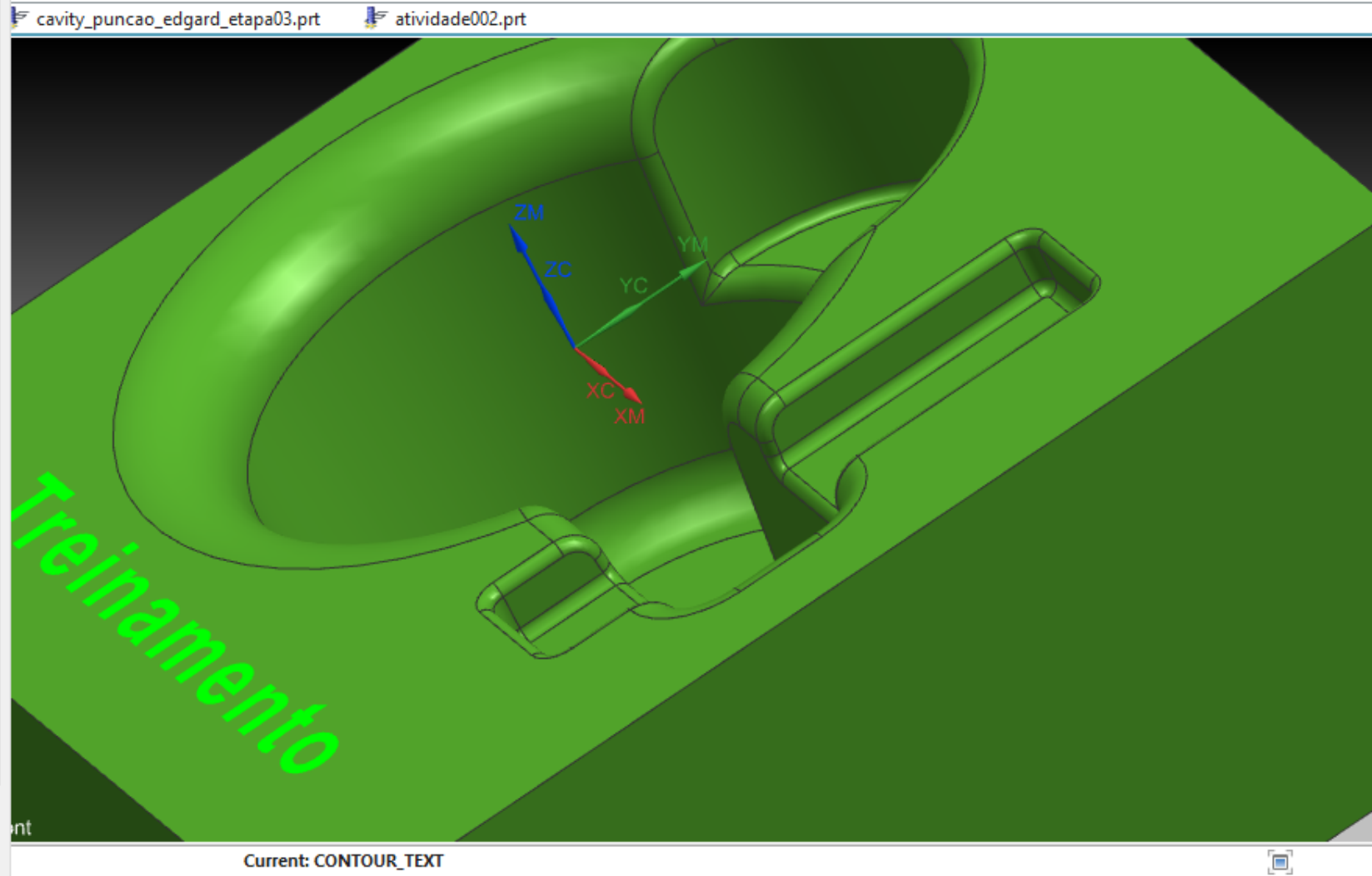
Tools Application

Find a Command

Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed: 5

Show 3D IPW



File Home Assen

Create Tool Create Geometry Create Operation

Insert

Menu

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Drafting Text

Operation Navigator - M

Name

GENERIC\_MACHINE

- Unused Items
- FRESA\_25
- DESBASTE
- FRESA\_16
- REDESBAS
- FRESA\_12
- ACABEME
- ACABAME
- FRESA\_8
- ACABAME
- FRESA\_6
- ACABAME
- FRESA\_4
- ACABAME
- LAPIS
- GRAVACAC
- CONTOUR

Dependencies

Details

Drive Method

Method Text

Projection Vector

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Text Depth 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

OK Cancel

Tools Application

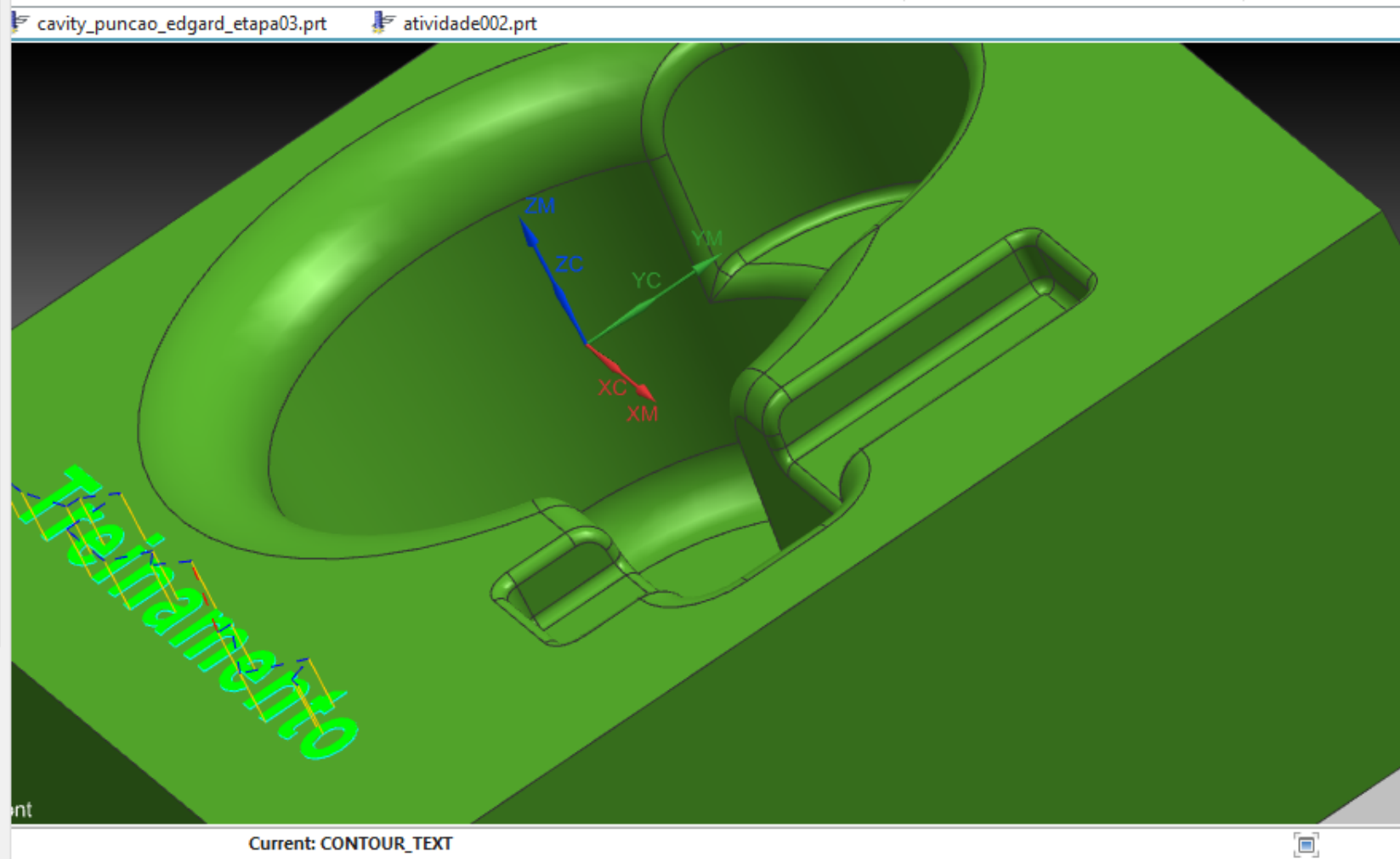
Find a Command

Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed 5

Show 3D IPW

Single Face Single Curve Single Body



File Home Assemblies Curve Analysis View Render Tools Application

Switch Window Window

SIEMENS

Find a Command

Tutorials

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

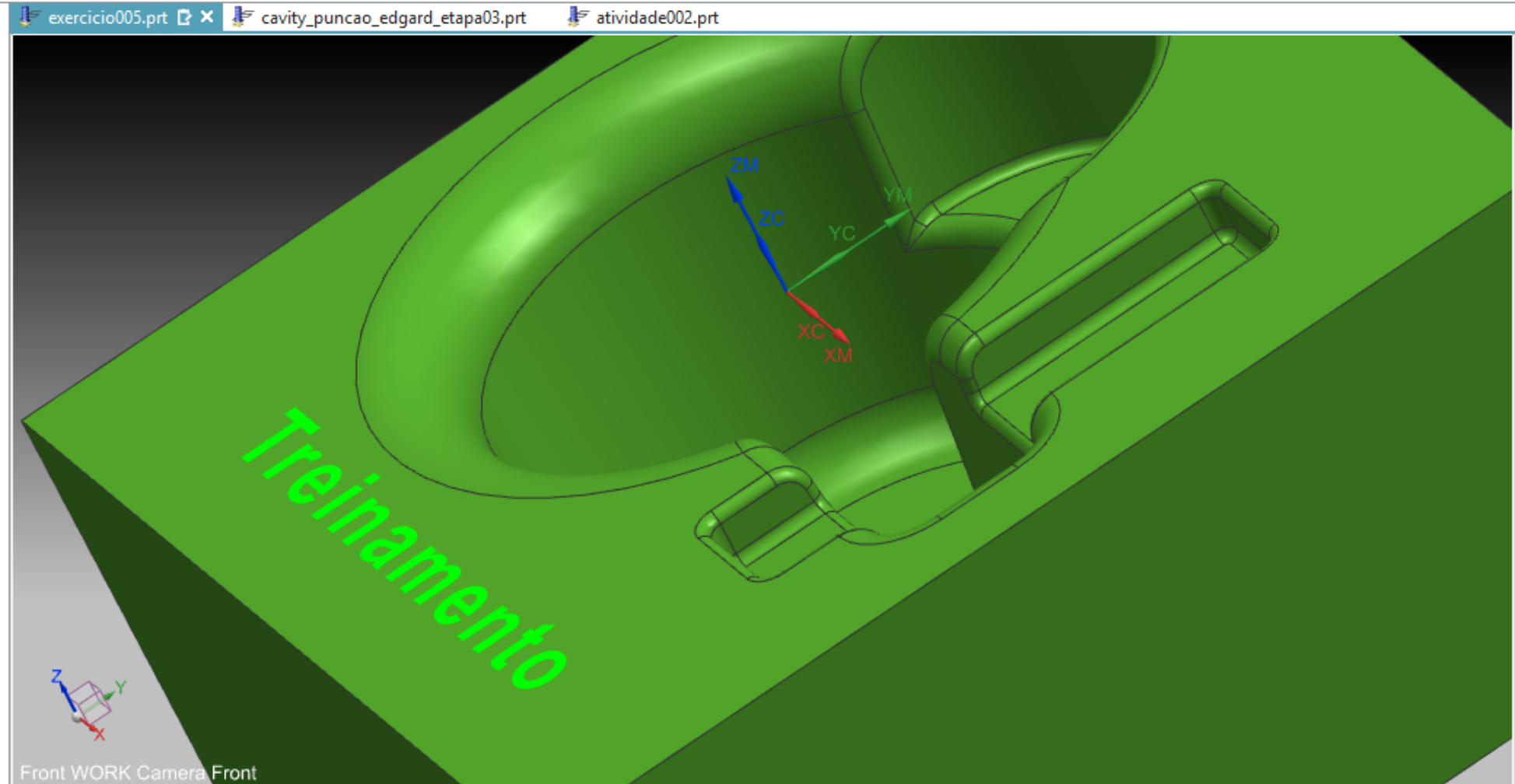
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESABASTE	✓
FRESA_16	
REDESABASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
LAPIS	
GRAVACAO	✓

Dependencies

Details



1  
1  
40

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

7

1 10

OK Cancel

View Render Tools Application

Find a Command

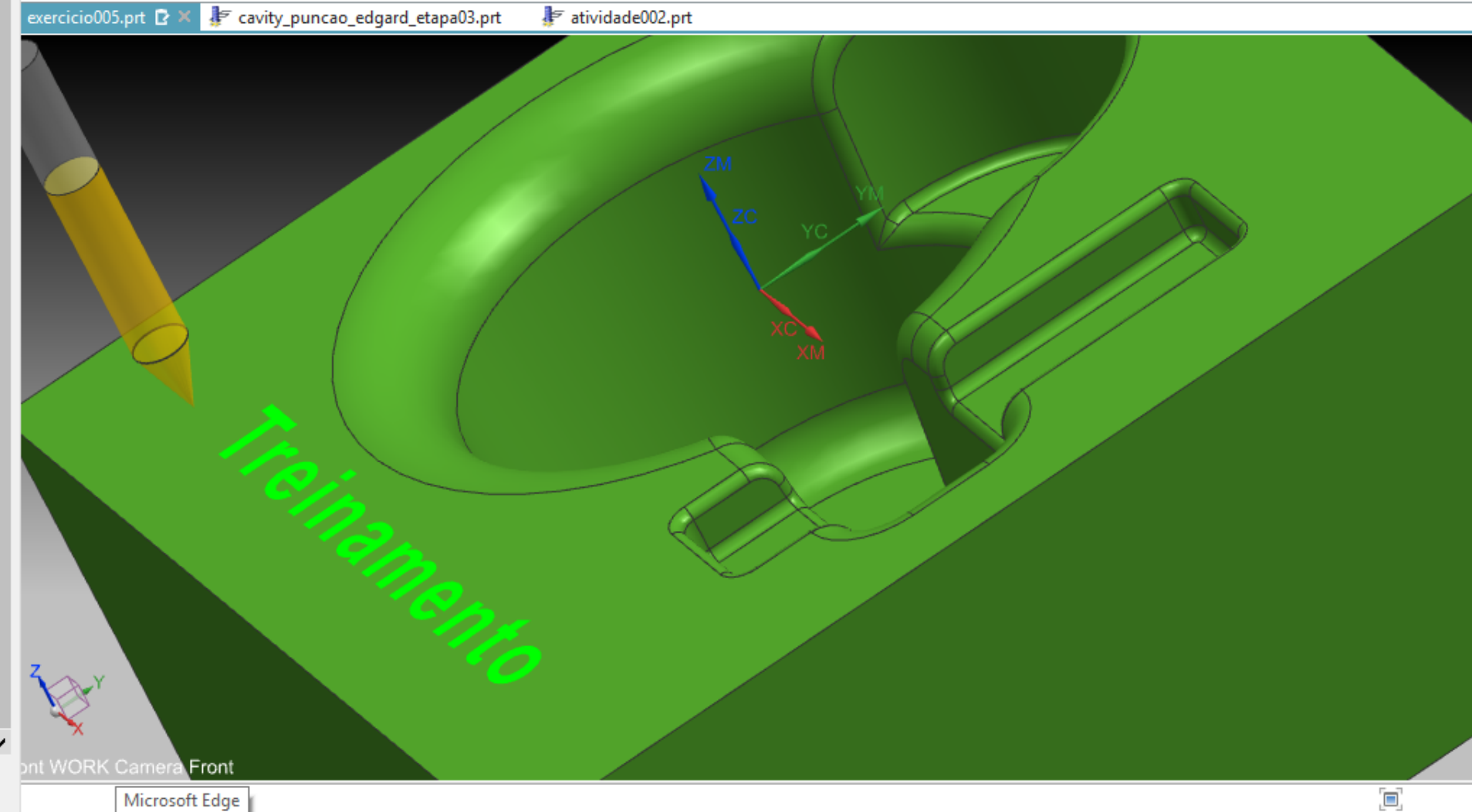
Verify of Path Simulate Machine Post Process Shop Documentation More

Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly



1  
1  
40

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

1 7 10

OK Cancel

View Render Tools Application

Find a Command

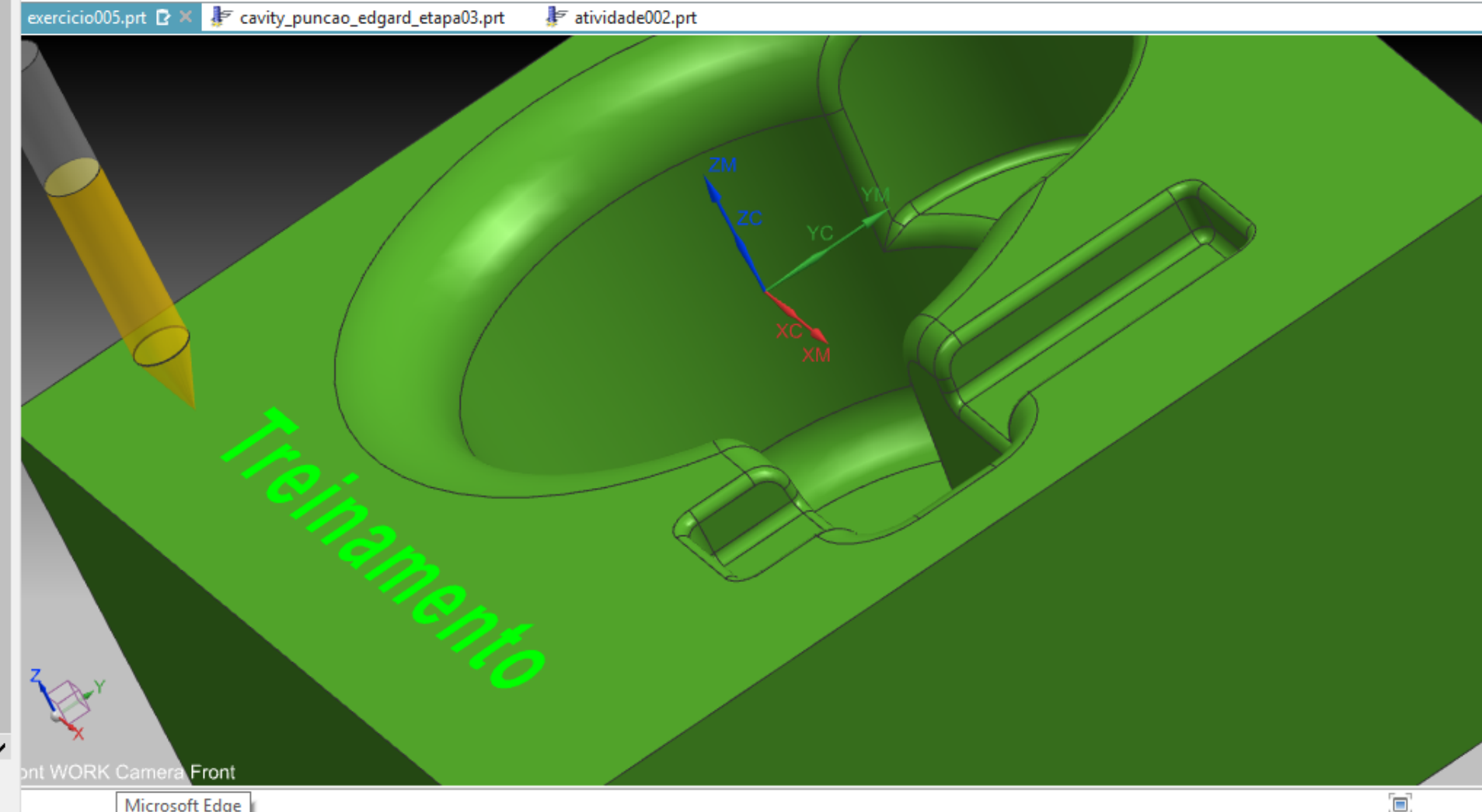
Verify of Path Simulate Machine Post Process Shop Documentation More

Operations Display Animation Workpiece

Speed 5

Show 3D IPW Analysis Geometry Synchronous Modeling Feature Tools

Entire Assembly



File Edit View

1

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

View Render Tools Application

Find a Command

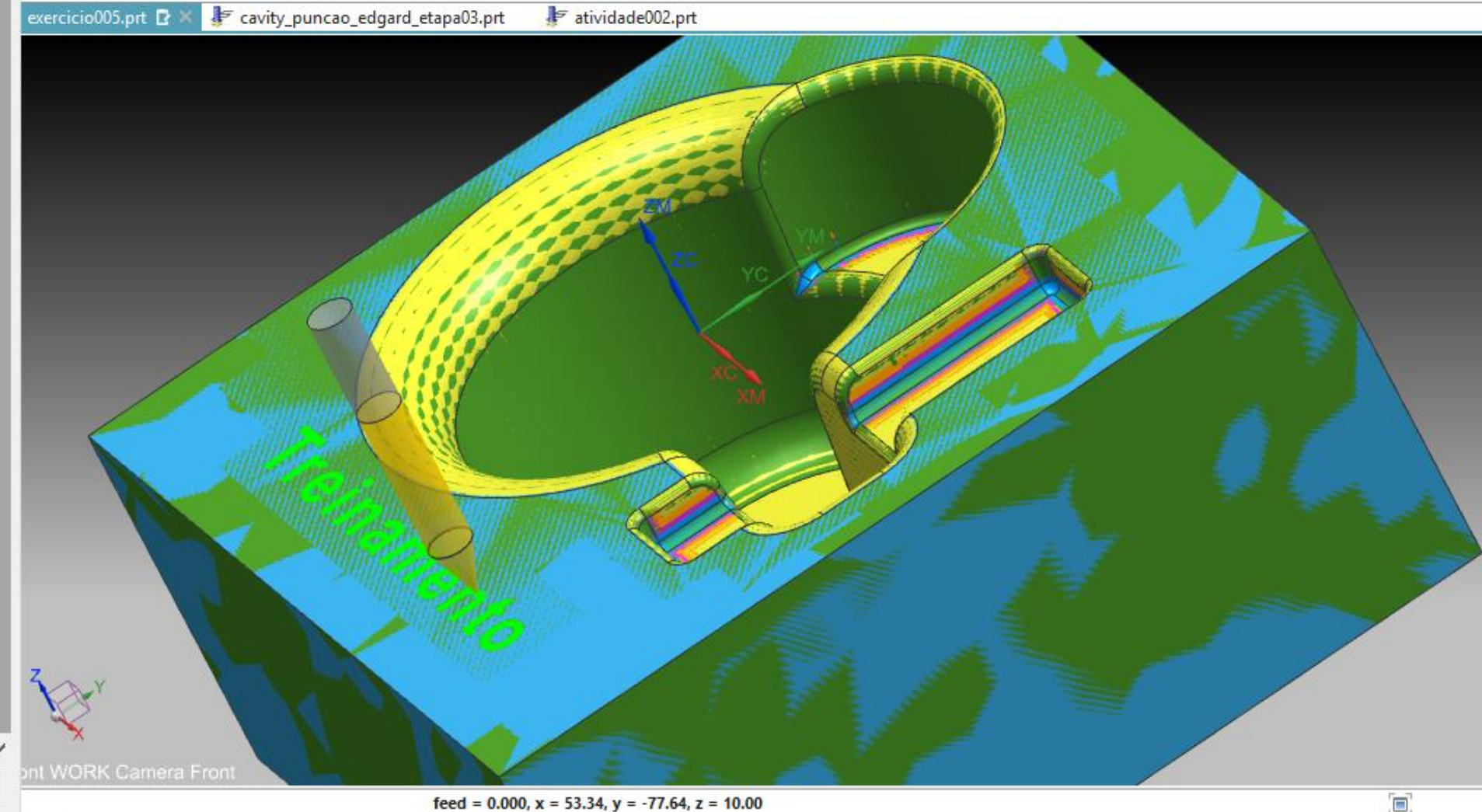
Verify of Path Simulate Machine Post Process Shop Documentation More

Operations Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed 5

Show 3D IPW

Entire Assembly





Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

[Dependencies](#) [Details](#)

housing\_cover.prt cavity\_puncao\_edgard\_etapa03.prt atividade002.prt exercicio005.prt

Create Operation

Type: mill\_planar

Operation Subtype

Location

Program

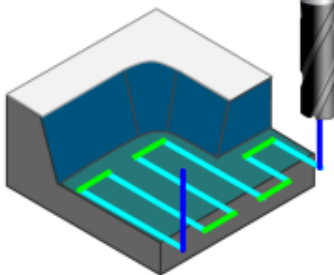
Tool

Geometry

Method

Name: FLOOR\_WALL

OK Apply Cancel



**Floor and Wall**  
Cuts Floors and Walls.

Select floor and/or wall geometry. The material to be removed is determined by the cut area floor and the blank thickness.

Recommended for basic face milling of planar faces on prismatic parts. This operation replaces the FACE\_MILLING\_AREA operation found in previous releases.



Choose type, subtype, location and specify operation name

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More

Insert Actions Operations Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

housing\_cover.prt cavity\_puncao\_edgard\_etapa03.prt atividade002.prt exercicio005.prt

Create Operation

Type: mill\_planar

Operation Subtype

Location

Program: PROGRAM

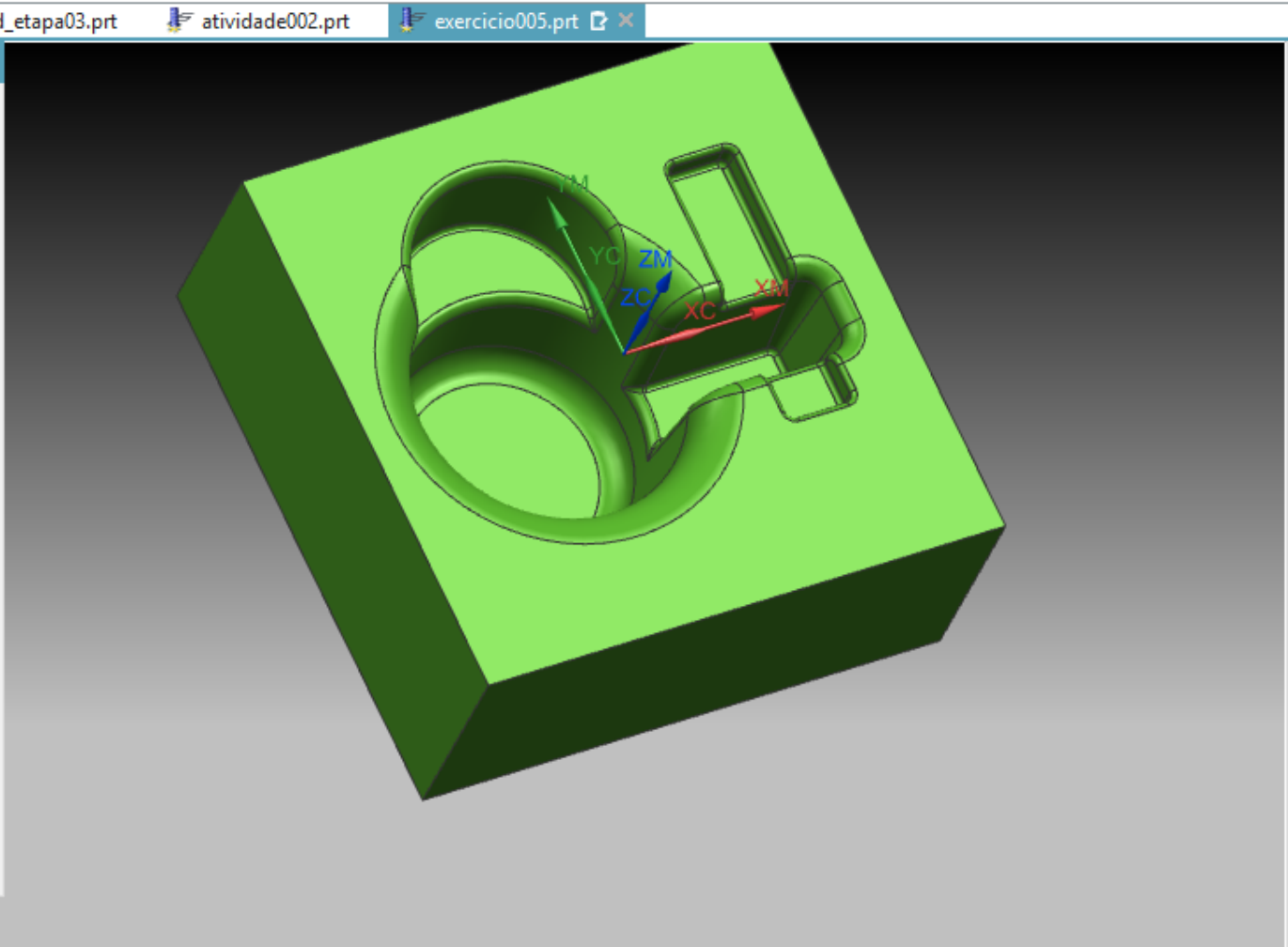
Tool: FRESA\_25 (Milling Toc)

Geometry: WORKPIECE

Method: MILL\_FINISH

Name: faceamento

OK Apply Cancel



Choose type, subtype, location and specify operation name

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu Face

Cut Area

Geometry

Select Object (1)

Add New Set

List

OK Cancel

Speed 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

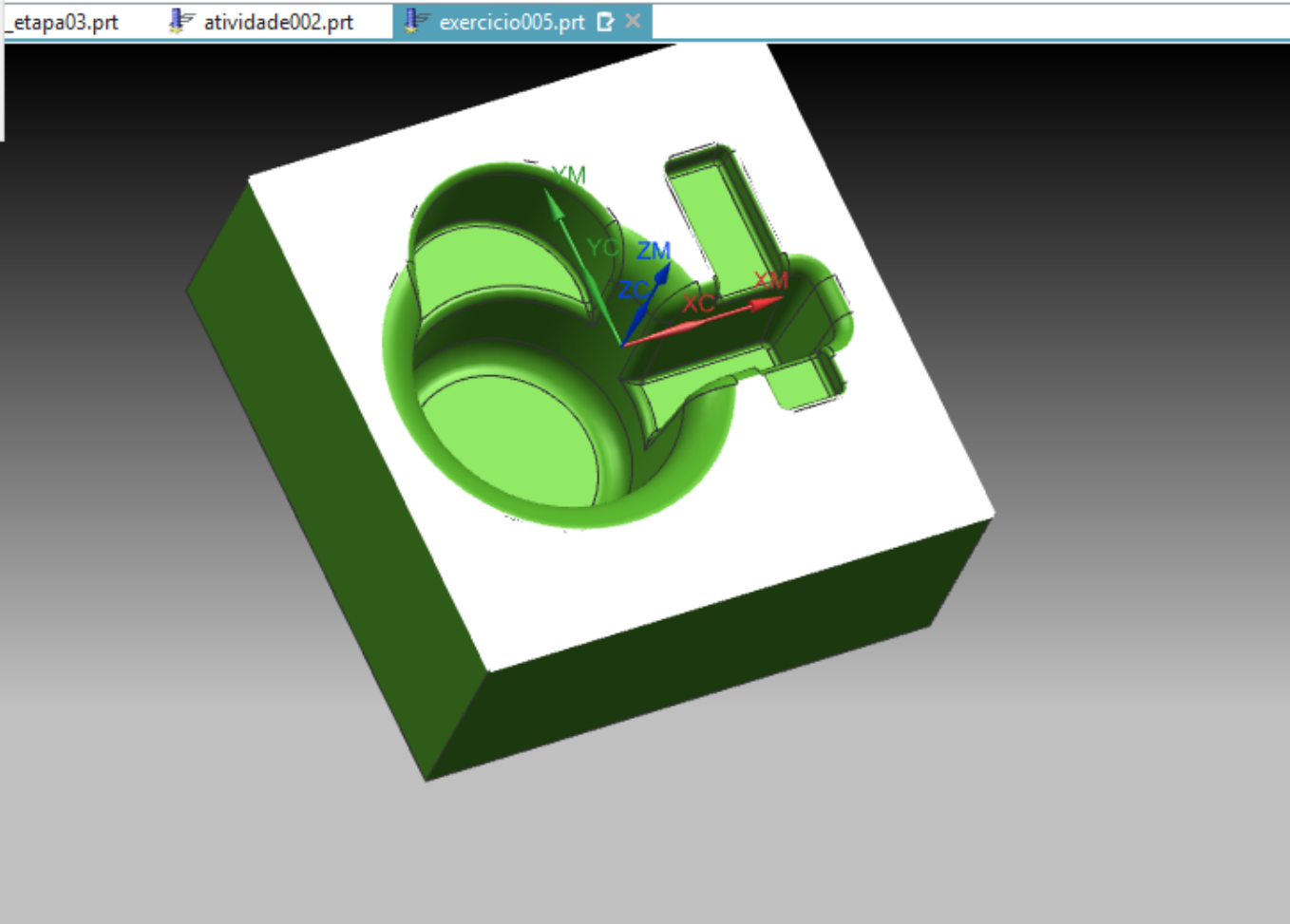
Single Face Single Body

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details



Select Cut Area Geometry

Face selected

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Automatic Settings

Set Machining Data

Surface Speed (s/mm) 235.0000

Feed per Tooth 0.0416

More

Spindle Speed

Spindle Speed (rpm) 3000.000

More

Feed Rates

Cut 250.0000 mmpm

Rapid

More

Units

Optimize Feed Rate When Generating

OK Cancel

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESABASTE	✓
FRESA_16	
REDESABASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

Find a Command

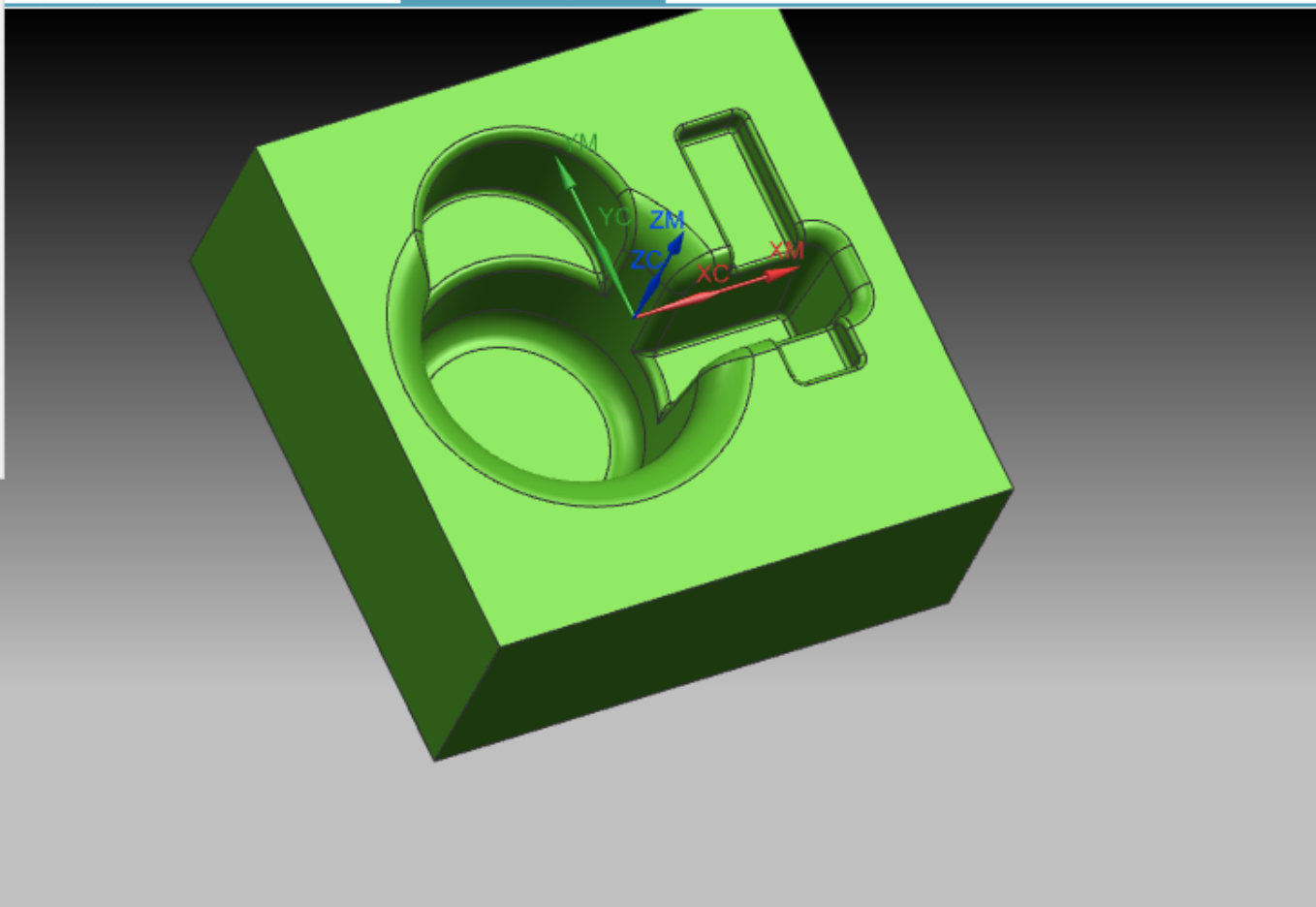
Display Animation Workpiece Analysis Geometry Synchronous Modeling Feature Tools

Speed 5

Show 3D IPW

Single Face Single Body

\_etapa03.prt atividade002.prt exercicio005.prt



Specify feeds and speeds parameters

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Floor Wall - [FACEAMENTO]

Geometry WORKPIECE\_1

Specify Part

Specify Check Body

Specify Cut Area Floor

Specify Wall Geometry

Automatic Walls

Specify Trim Boundaries

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Cut Region Containmen Floors

Cut Pattern Zig

Stepover Constant

Maximum Distance 50.0000 %Tool

Floor Blank Thickness 3.0000

Depth Per Cut 0.0000

Z-Depth Offset 0.0000

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

OK Cancel

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESABASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

Find a Command

Display Animation Workpiece

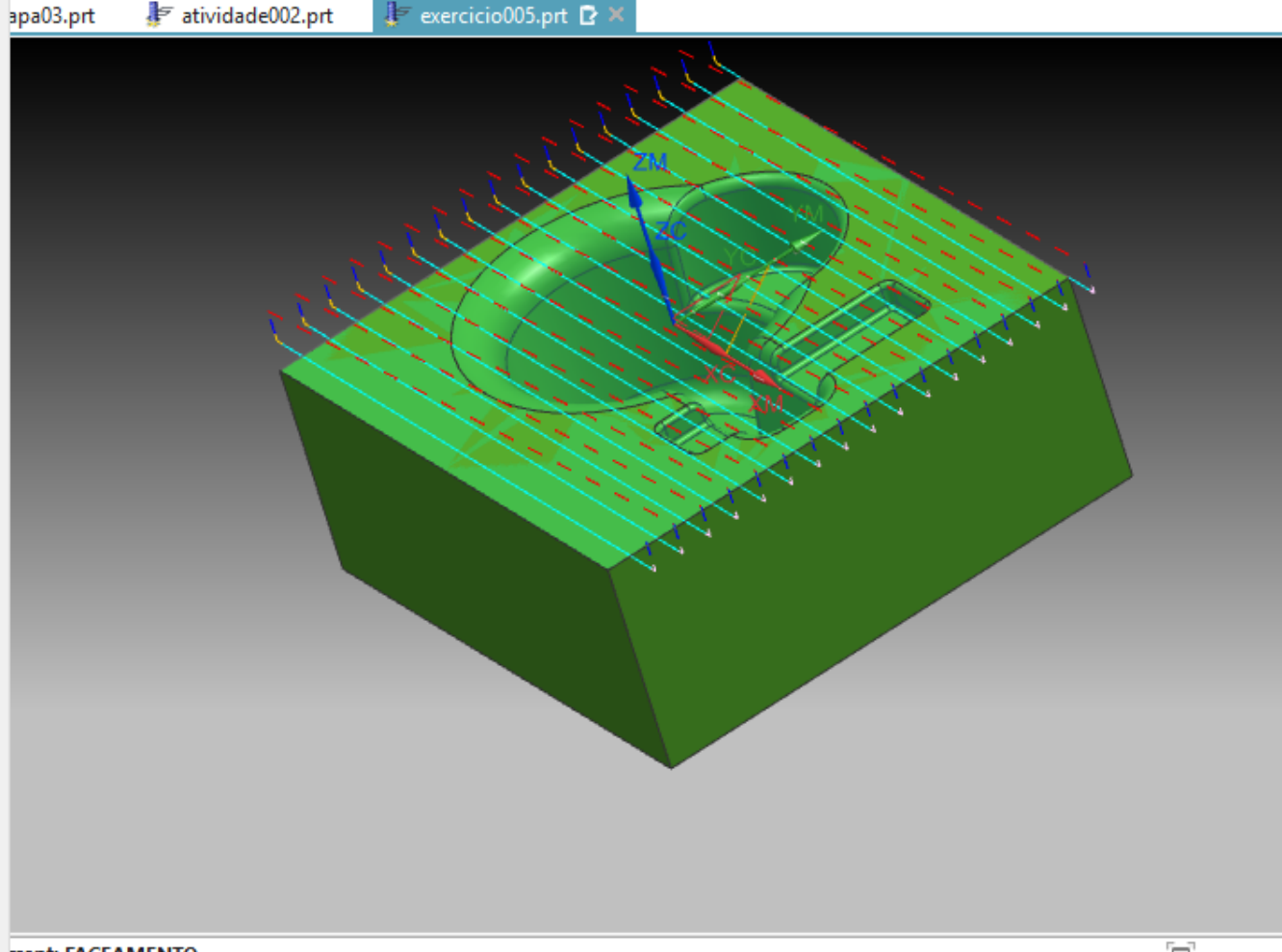
Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Body

apa03.prt atividade002.prt exercicio005.prt



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Specify Part

Specify Check Body

Specify Cut Area Floor

Specify Wall Geometry

Automatic Walls

Specify Trim Boundaries

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
! FACEAMENTO	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

Tool

Tool Axis

Path Settings

Method: MILL\_FINISH

Cut Region Containment: Floors

Cut Pattern: Zig Zag

Stepover: Constant

Maximum Distance: 50.0000 %Tool

Floor Blank Thickness: 3.0000

Depth Per Cut: 0.0000

Z-Depth Offset: 0.0000

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

OK Cancel

Find a Command

Display Animation Workpiece

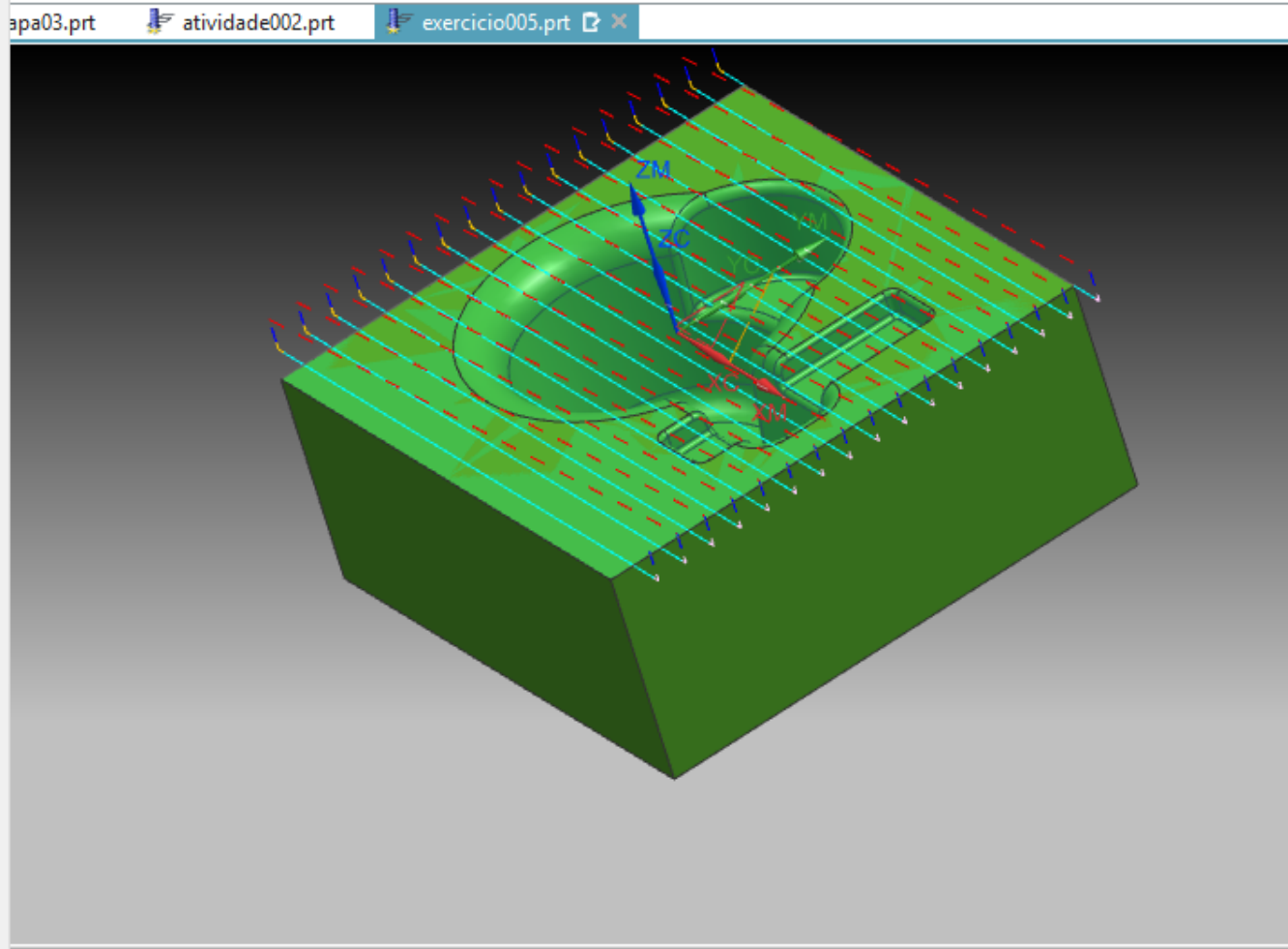
Speed: 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Body

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Specify parameters

Parent: FACEAMENTO

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Geometry

Geometry WORKPIECE\_1

Specify Part

Specify Check Body

Specify Cut Area Floor

Specify Wall Geometry

Automatic Walls

Specify Trim Boundaries

Menu

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Cut Region Containmen Floors

Cut Pattern Zig Zag

Stepover Constant

Maximum Distance 50.0000 %Tool

Floor Blank Thickness 3.0000

Depth Per Cut 0.0000

Z-Depth Offset 0.0000

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Find a Command

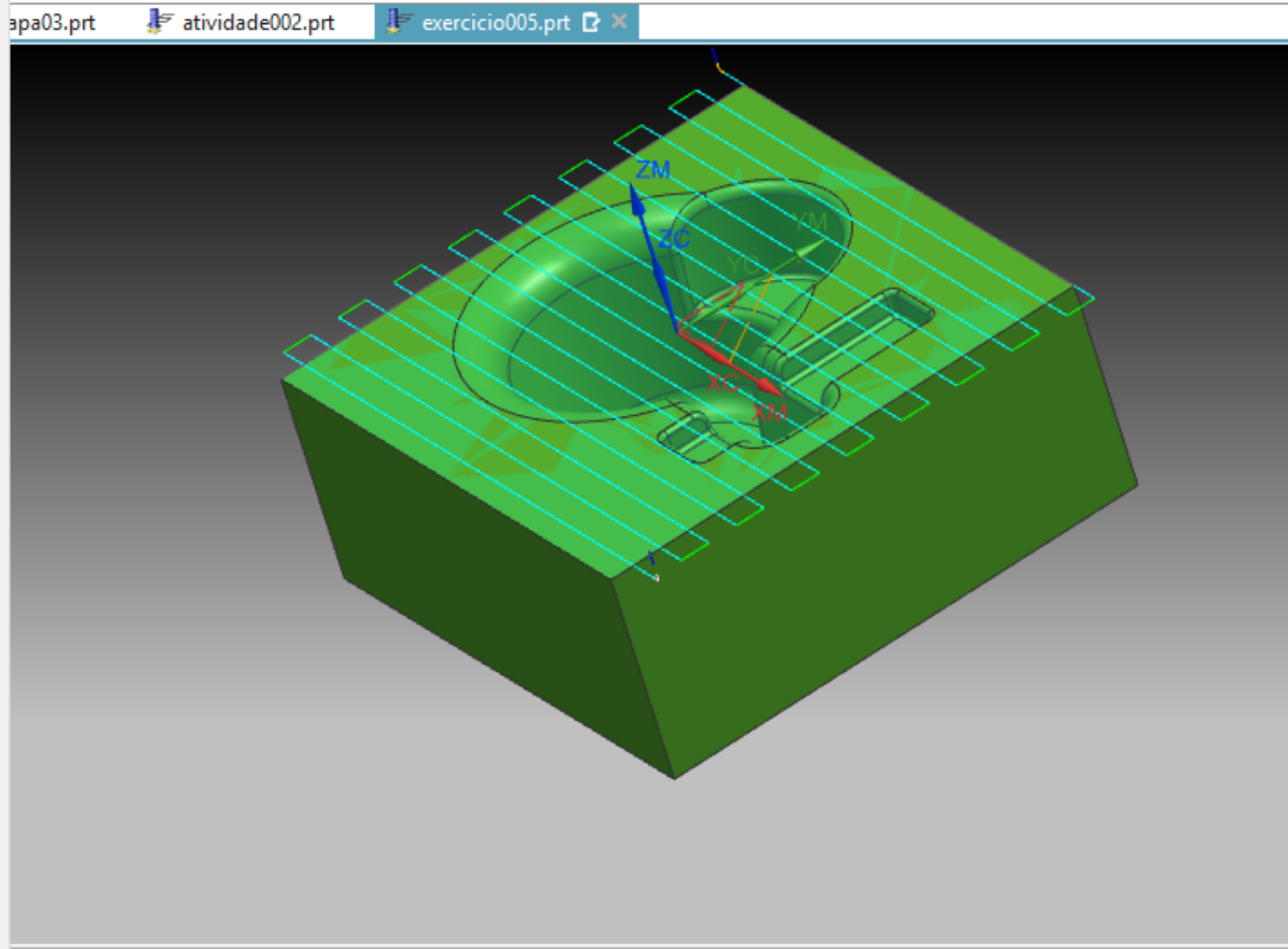
Display Animation Workpiece

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Body



Specify parameters

OK Cancel

Parent: FACEAMENTO

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Tool Shank Holder More

Legend

Dimensions

(D) Diameter	10.0000
(R1) Lower Radius	0.5000
(B) Taper Angle	0.0000
(A) Tip Angle	70.0000
(L) Length	75.0000
(FL) Flute Length	50.0000
Flutes	2

Description

Material : HSS

Numbers

Tool Number	7
Adjust Register	0
Cutcom Register	0

Offsets

Information

OK Cancel

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓

Dependencies

Details

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

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Translate origin



File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Create Tool Create Geometry Create Operation Properties Generate Tool Path Verify Tool Path Simulate Machine Post Process Shop Documentation More

Insert Actions Operations Display Animation Workpiece

Geometry Synchronous Modeling Feature Tools

Point Extract Geometry

Speed 5

Show 3D IPW

Analysis

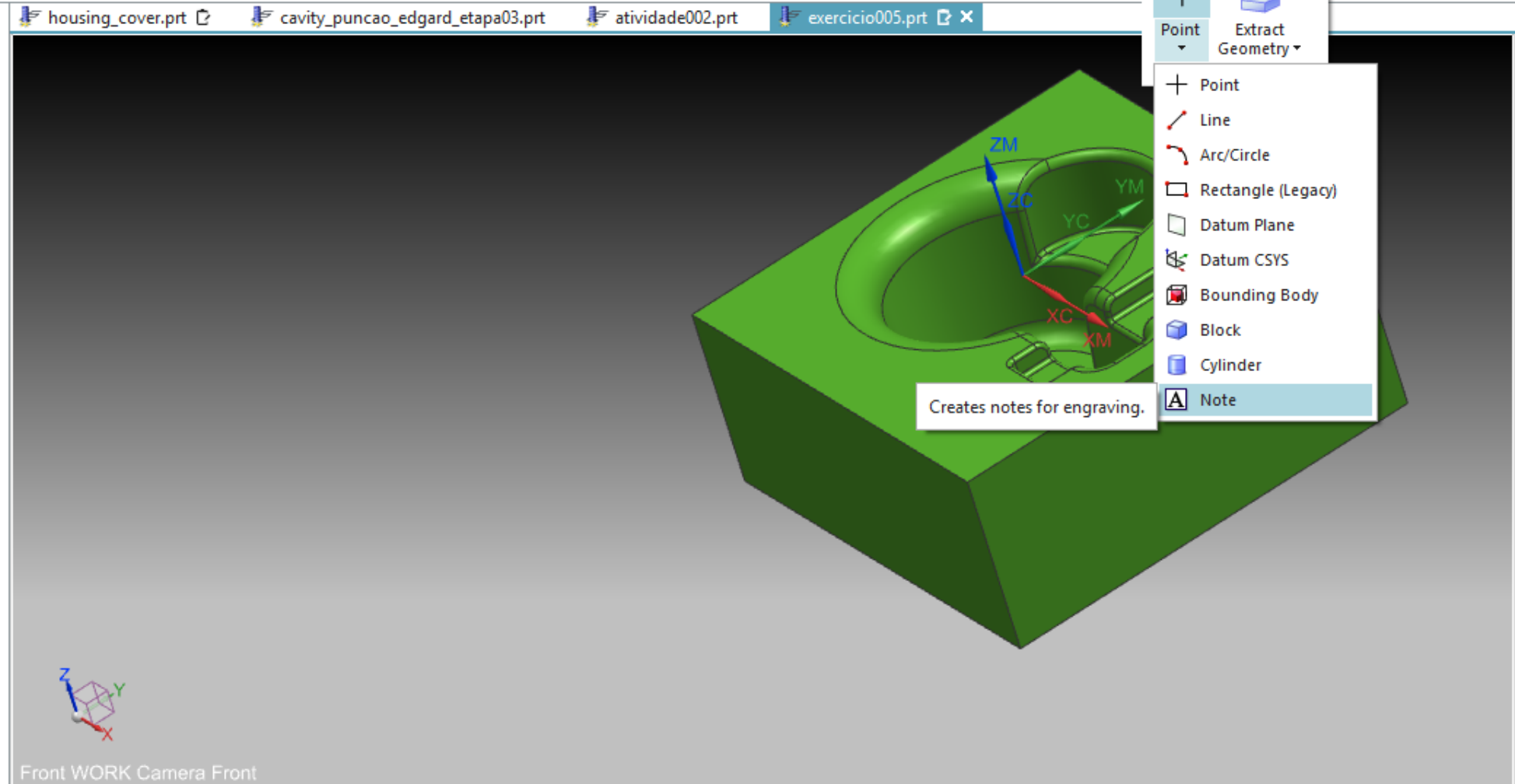
Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
! FACEAMENTO	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	

Dependencies

Details



Edit objects in the Operation Navigator or use Insert to create new objects Double-click the WCS to activate WCS Dynamics

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection

Create Operation

Type: mill\_contour

Operation Subtype

Find a Command

Speed: 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	

Dependencies Details

Location

Program

Tool

Geometry

Method

Name

CONTOUR

OK Apply Cancel

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Contour Text

Machines text on a contoured surface.

Specify part geometry. Select drafting text as the geometry to define the tool path. Edit text depth to determine the depth of cut. Text will project onto the part along the fixed tool axis.

Recommended for machining simple text such as identification numbers.

Front WORK Camera Front

Choose type, subtype, location and specify operation name

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Contour Text - [GRAVACAO]

Geometry

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Drafting Text

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	

Dependencies

Details

Drive Method

Method Text

Projection Vector

Tool

Tool Axis

Path Settings

Method MILL\_FINISH

Text Depth 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

NX 12 - Manufacturing

Find a Command

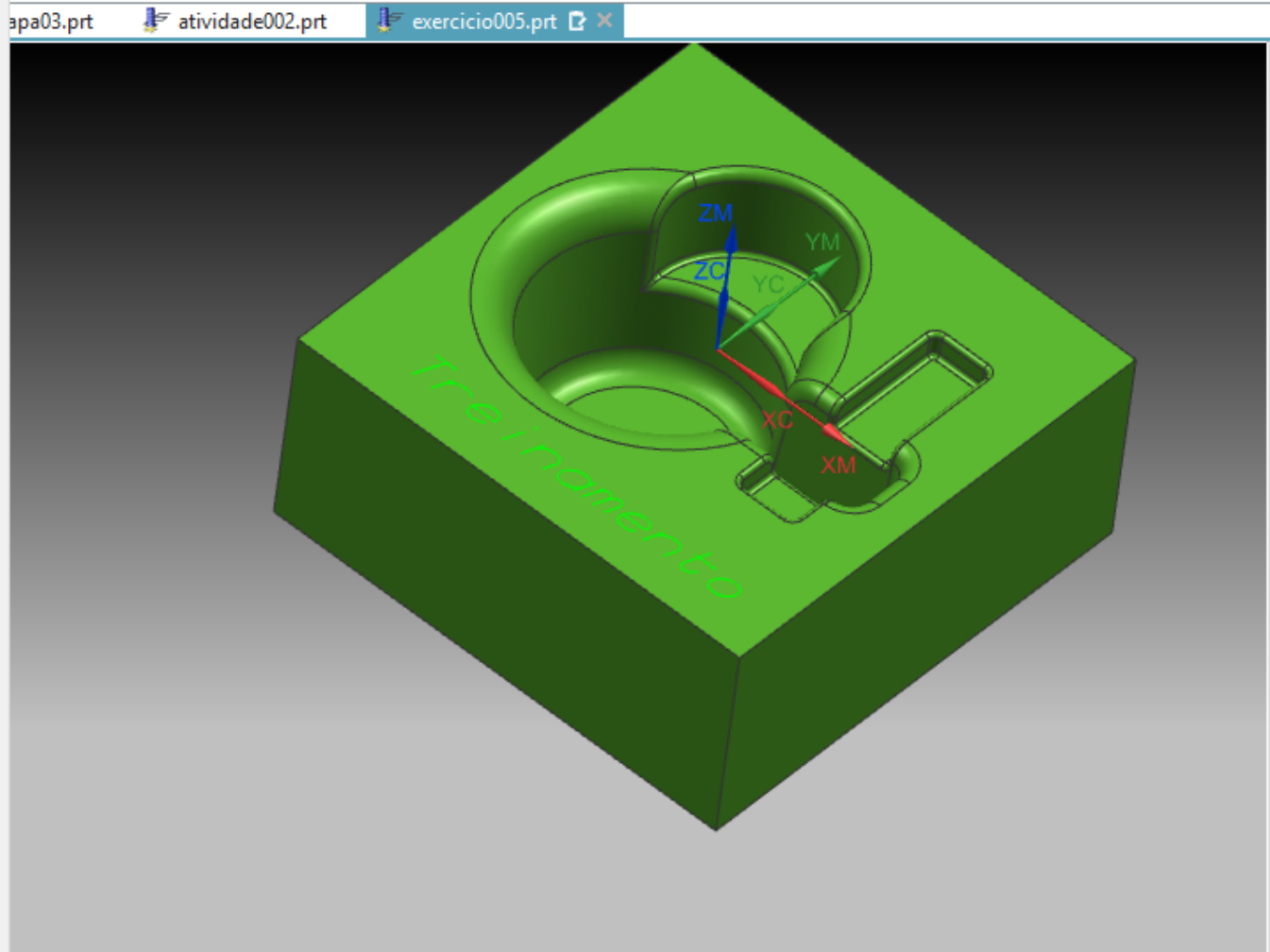
Speed 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

apa03.prt atividade002.prt exercicio005.prt



File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu No Selection Filter

Filter Type

Class Selection

Remove Last

OK Back Cancel

Find a Command

Speed 5

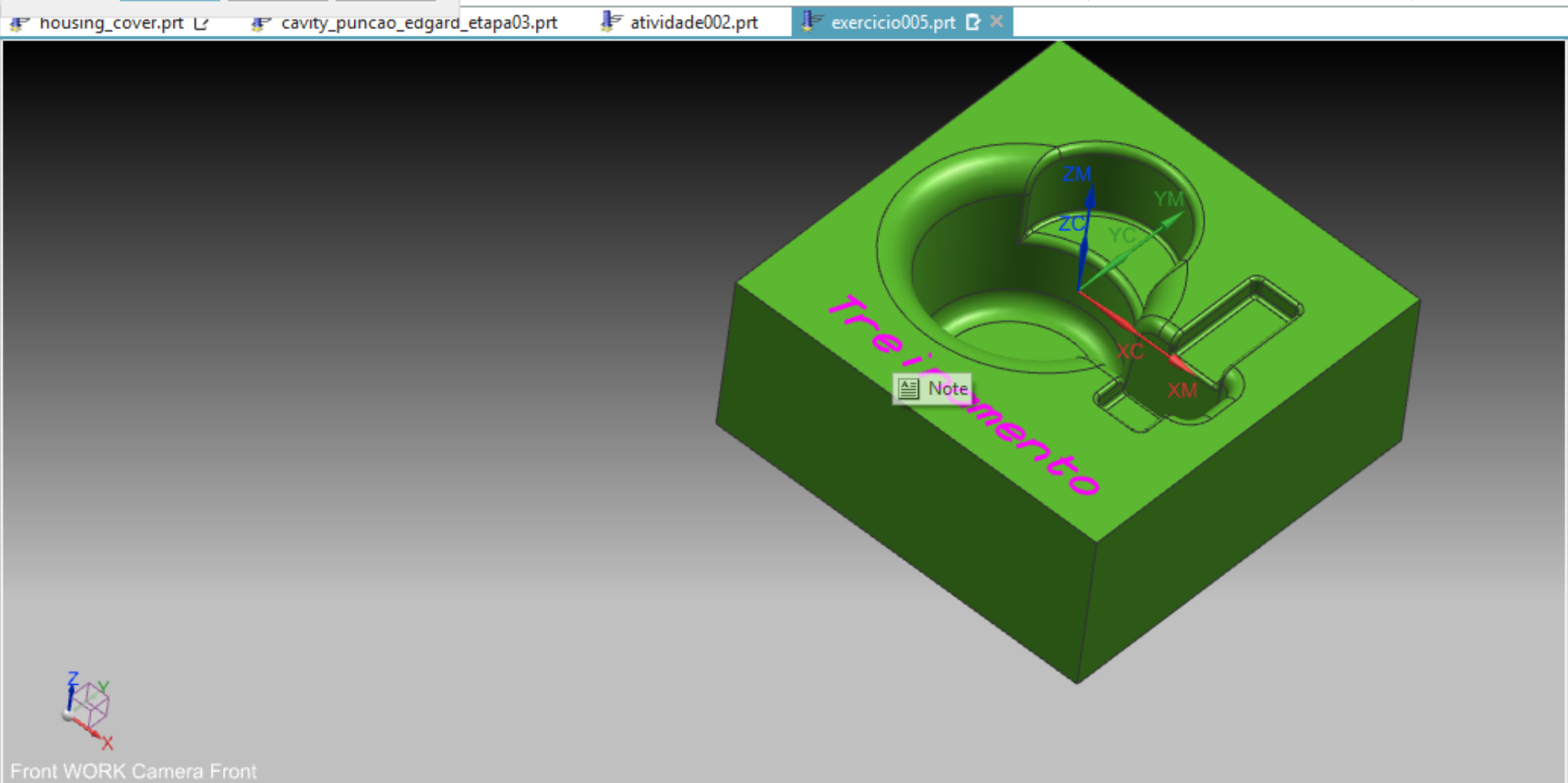
Display Animation Workpiece

Single Curve Single Face Single Body

Analysis Geometry Synchronous Modeling Feature Tools

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
! FACEAMENTO	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	
Dependencies	▼
Details	▼



Select a drafting note/label Note

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Menu

Contour Text - [GRAVACAO]

Geometry WORKPIECE

Specify Part

Specify Check

Specify Cut Area

Specify Drafting Text

Drive Method Method Text

Projection Vector

Tool

Tool Axis

Path Settings Method MILL\_FINISH Text Depth 0.2500

Cutting Parameters

Non Cutting Moves

Feeds and Speeds

Machine Control

Program

Description

Options

OK Cancel

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESBASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESBASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	
GRAVACAO	✓

Dependencies

Details

NX 12 - Manufacturing

Find a Command

Speed 5

Display Animation Workpiece

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Single Face Single Curve Single Body

apa03.prt atividade002.prt exercicio005.prt

Current: GRAVACAO

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
! FACEAMENTO	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	
! GRAVACAO	✓

Dependencies Details

1 20

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

Play OK Cancel

Find a Command

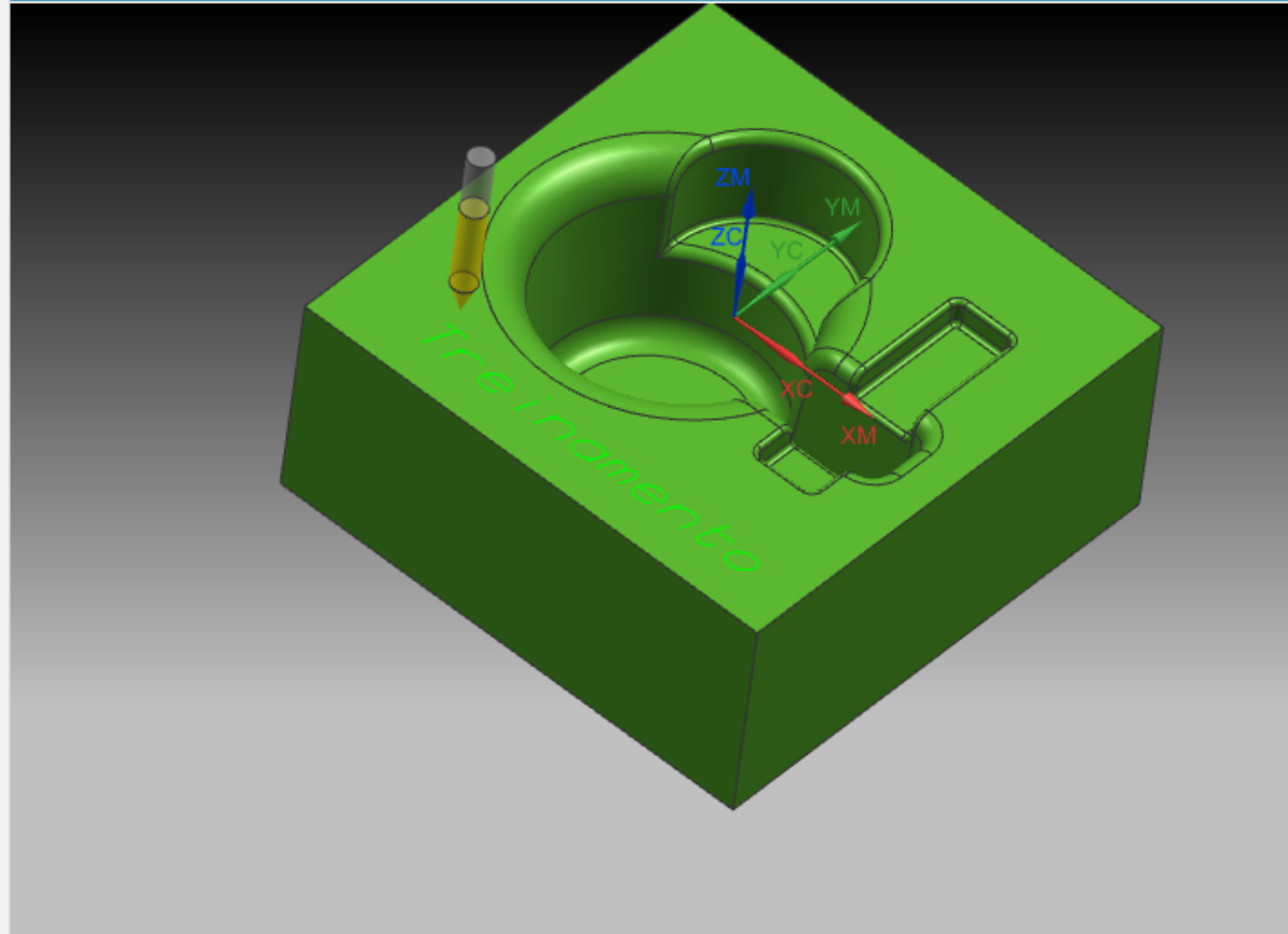
Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Display Animation Workpiece

apa03.prt atividade002.prt exercicio005.prt



Choose Step or Play to start dynamic material removal

File Home Assemblies Curve Analysis

Create Tool Create Geometry Create Operation Properties Generate Tool Path

Insert Actions

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
! DESBASTE	✓
! FACEAMENTO	✓
FRESA_16	
! REDESBASTE	✓
FRESA_12	
! ACABAMENTO_PAREDES	✓
! ACABAMENTO_SUPERFICIE	✓
FRESA_8	
! ACABAMENTO_RAIO_8MM	✓
FRESA_6	
! ACABAMENTO_RAIO_6MM	✓
FRESA_4	
! ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	
! GRAVACAO	✓

Dependencies Details

Feed Rate 0.000000

Replay 3D Dynamic

Tool Display Tool

Tool Path None

Number of Motions 10

IPW Resolution Medium

Display Options

Enhance IPW Resolution

IPW None

Create Delete

Analyze

Show 3D Show Spinning 3D

Check for IPW Collisions

Check Tool and Holder

Collision Settings List

Reset

Suppress Animation

Animation Speed

6

1 10

OK Cancel

Find a Command

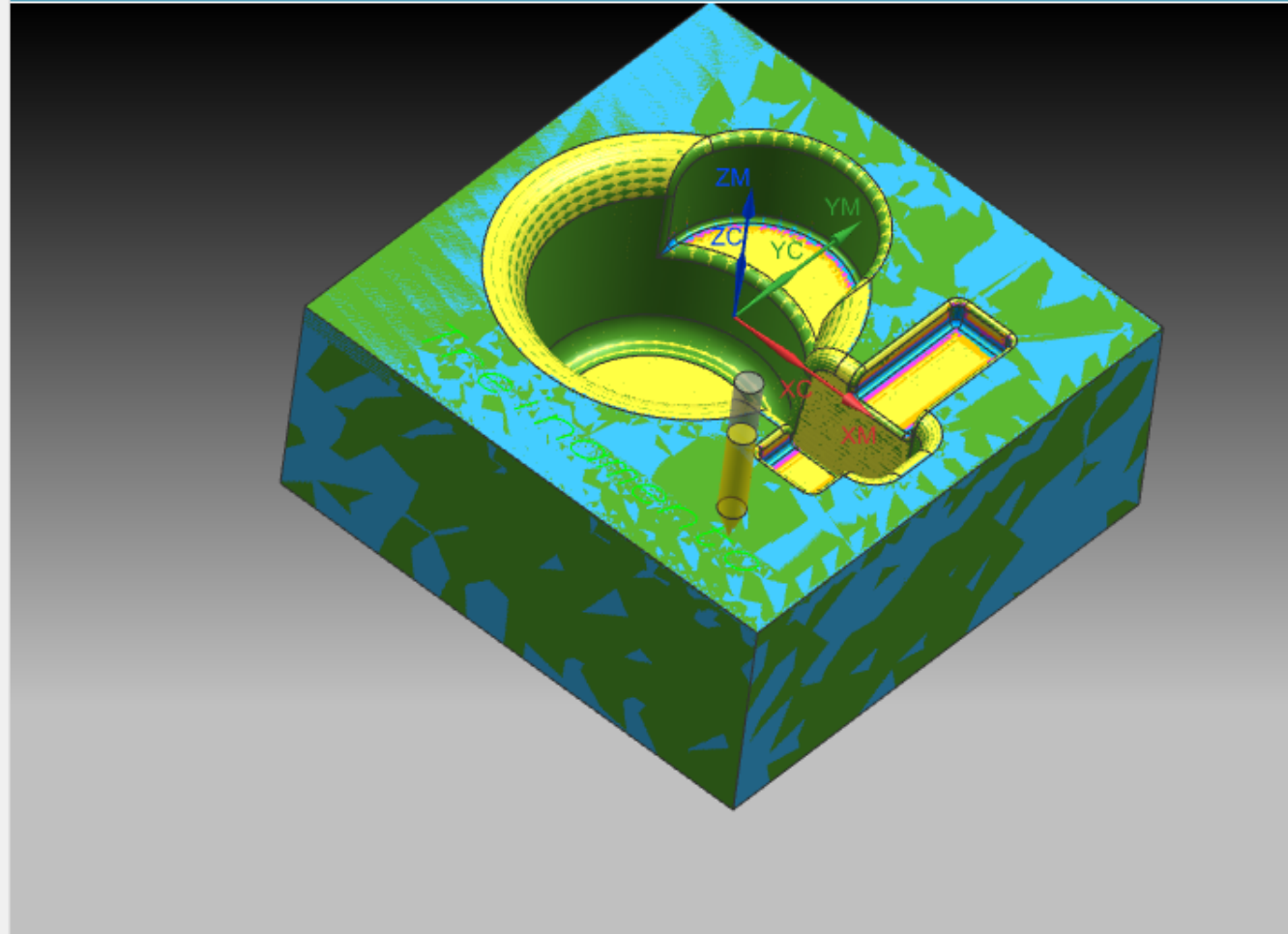
Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Display Animation Workpiece

apa03.prt atividade002.prt exercicio005.prt



Choose Step or Play to start dynamic material removal

imagens\_cam02.pptx - PowerPoint = 70.93, y = -83.50, z = 10.00

File Home Assemblies Curve Analysis View Render Tools Application

Find a Command

Speed 5

Show 3D IPW

Analysis Geometry Synchronous Modeling Feature Tools

Menu No Selection Filter Entire Assembly

Operation Navigator - Machine Tool

Name	Path
GENERIC_MACHINE	
Unused Items	
FRESA_25	
DESABASTE	✓
FACEAMENTO	✓
FRESA_16	
REDESABASTE	✓
FRESA_12	
ACABAMENTO_PAREDES	✓
ACABAMENTO_SUPERFICIE	✓
FRESA_8	
ACABAMENTO_RAIO_8MM	✓
FRESA_6	
ACABAMENTO_RAIO_6MM	✓
FRESA_4	
ACABAMENTO_RAIO_4MM	✓
FRESA_0.5	
GRAVACAO	✓

Dependencies

Details

