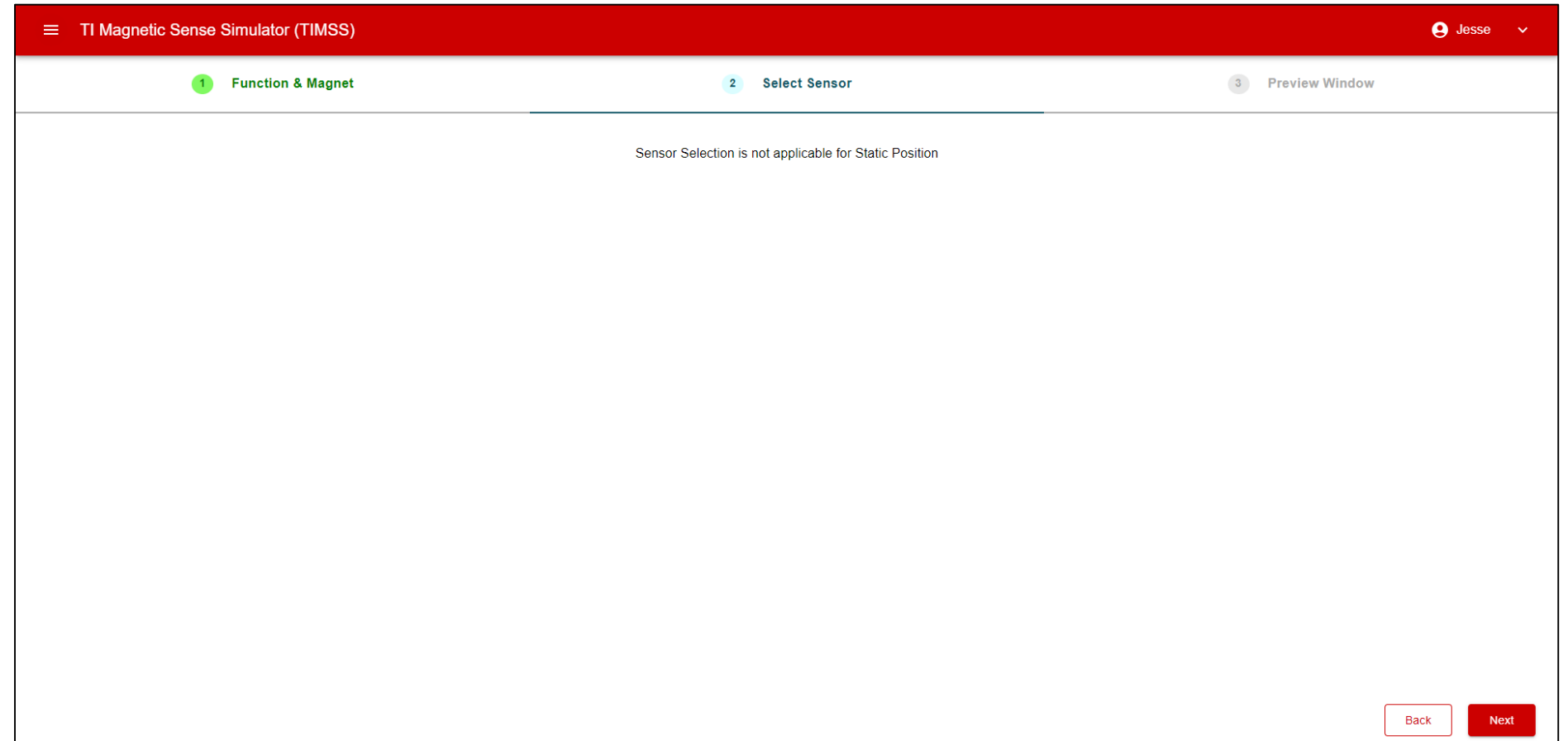
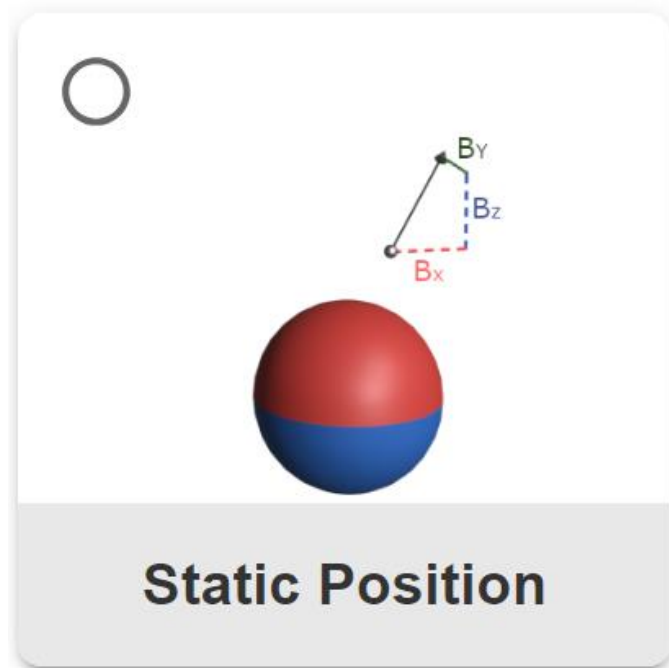


# Static positions

TI Precision Labs – TI Magnetic Sense Simulator (TIMSS)

Presented and prepared by Jesse Baker

# Static simulation



# Static simulation configuration

Function Static Position Save ...

Magnet Sensor Sim Settings

> Magnet Specifications ⓘ

> Magnet Geometry ⓘ

▼ Magnet Motion ⓘ

Origin Position

Position

X Axis	Y Axis	Z Axis
0 mm	0 mm	0 mm

Angle

X Axis	Y Axis	Z Axis
0 Deg	0 Deg	0 Deg

Location of the magnet center

Orientation of the magnet

Function Static Position Save ...

Magnet Sensor Sim Settings


▼ Simulation Settings ⓘ

No Settings Available

# Simulation configuration example

TI Magnetic Sense Simulator (TIMSS) Jesse


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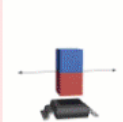
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Example Reference Designs Search




Angle Encoding  
Function: Rotation    Magnet shape: Diametric Cylinder

[View details](#) [Open Design](#)



Slide-By  
Function: Linear    Magnet shape: Axial Cylinder


[View details](#) [Open Design](#)



Incremental Encoding  
Function: Rotation    Magnet shape: Ring

[View details](#) [Open Design](#)

[>](#)

 **TEXAS INSTRUMENTS**

4



# Using parametric sweep to gather a set of points

The screenshot displays the TI Magnetic Sense Simulator (TIMSS) interface. The main workspace shows a 3D model of a magnet (red and blue cylinder) and a sensor (black sphere) on a grid. A red 'Simulate' button is at the bottom center. The left sidebar contains icons for Design, Parametric Sweep, and Compare Design. The top bar shows 'TI Magnetic Sense Simulator (TIMSS)' and a user profile 'Jesse'. The right sidebar has tabs for Magnet, Sensor, and Sim Settings. The Magnet Specifications panel is expanded, showing the following settings:

Magnet Specifications	
Magnet Shape	Axial Cylinder
Poles	2
Magnet Material	Sintered Neodymium I...
Material Grade	N35
Select Remanence Value	Average Remanence ...
Remanence (Br)	Temperature
1200 mT at 20°C	20 °C
Temperature Coefficient	Coercivity
-0.12 %/°C	10.9 KOe

Below the Magnet Specifications panel are sections for Magnet Geometry and Magnet Motion, both currently collapsed.

# Learn More

- TI Magnetic Sense Simulator Product Folder  
<https://www.ti.com/TIMSS>
- TI Magnetic Sense Simulator User's Guide  
<https://www.ti.com/lit/ug/slyu067/slyu067.pdf>
- TI Magnetic Sense Simulator App Brief  
<https://www.ti.com/lit/ab/slya083/slya083.pdf>
- Position Sensing Demo Video Series  
<https://www.ti.com/video/series/position-sensing-demos.html>
- TI Precision Labs: Magnetic Sensor Training Videos  
<https://www.ti.com/video/series/precision-labs/ti-precision-labs-magnetic-sensors.html>
- Sensors E2E Forum  
<https://e2e.ti.com/support/sensors-group/sensors/f/sensors-forum>
- TI Magnetic Sensor Portfolio  
<https://www.ti.com/magneticsensors>

To start your simulation now, visit:  
[www.ti.com/timss](http://www.ti.com/timss)