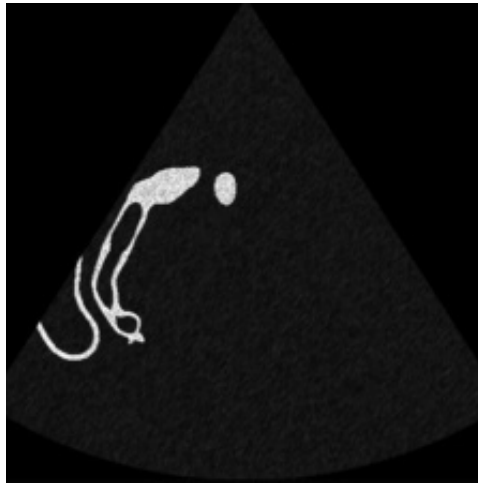


## Example 1



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.048463307321071628,"y":-0.02537141740322113,"z":-0.00011014938354492188},"rotation":{"x":31.0,"y":15.0,"z":26.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
The image shows a distorted view, likely due to the sector scan
geometry. Rotate the probe 110 degrees clockwise to align with the
heart's long axis.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":110,"z":0}}
</answer>
```

#### Extracted Reasoning:

The image shows a distorted view, likely due to the sector scan geometry. Rotate the probe 110 degrees clockwise to align with the heart's long axis.

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":110,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
rotate the probe slightly to the right and pull back for PLAX.
</reasoning>
<answer>
{"position":{"x":10,"y":50,"z":20},"rotation":{"x":0,"y":-10,"z":0}}
</answer>
```

#### Extracted Reasoning:

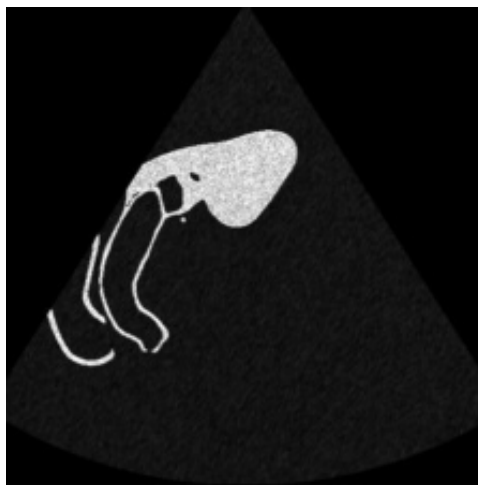
rotate the probe slightly to the right and pull back for PLAX.

#### Extracted Answer:

```
{"position":{"x":10,"y":50,"z":20},"rotation":{"x":0,"y":-10,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Example 2



#### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **\*\*exactly\*\*** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.04956212267279625,"y":-0.022336378693580629,"z":-0.0012343227863311768},"rotation":{"x":30.0,"y":14.0,"z":25.0}}

## Completion -2.0

### Full Model Output:

The image appears to be a simplified ultrasound marker, and no probe transform is needed for PLAX view; it is a concept not applicable to this simplified marker.

```
<answer>
{}
</answer>
```

### Extracted Reasoning:

N/A

### Extracted Answer:

```
{}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.0000

## Completion -1.0

### Full Model Output:

```
<reasoning>
Rotate probe 90 degrees counterclockwise and move 1 cm superior.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":1},"rotation":{"x":0,"y":90,"z":0}}
</answer>
```

### Extracted Reasoning:

Rotate probe 90 degrees counterclockwise and move 1 cm superior.

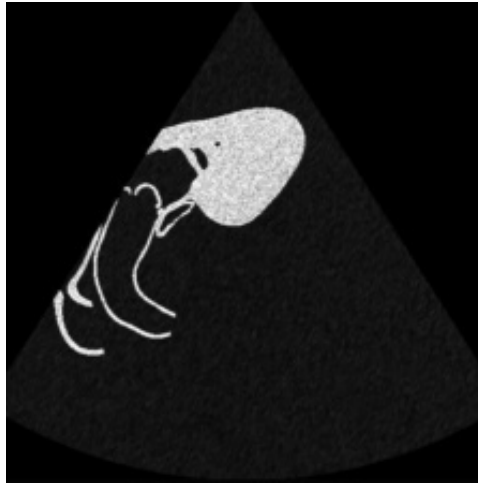
### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":1},"rotation":{"x":0,"y":90,"z":0}}
```

Metric	Value
numeric	-3.0000

keywords	0.5000
xml	0.5000

### Example 3



#### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.052875980734825137,"y":-0.02035290002822876,"z":-0.0035239458084106447},"rotation":{"x":29.0,"y":14.0,"z":23.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
slide probe left, fan away from patient's head
</reasoning>
<answer>
{"position":{"x":1,"y":-1,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
</answer>
```

#### Extracted Reasoning:

slide probe left, fan away from patient's head

#### Extracted Answer:

```
{"position":{"x":1,"y":-1,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Slide the probe slightly upwards, roll it to the left, and tilt it
forward.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
</answer>
```

#### Extracted Reasoning:

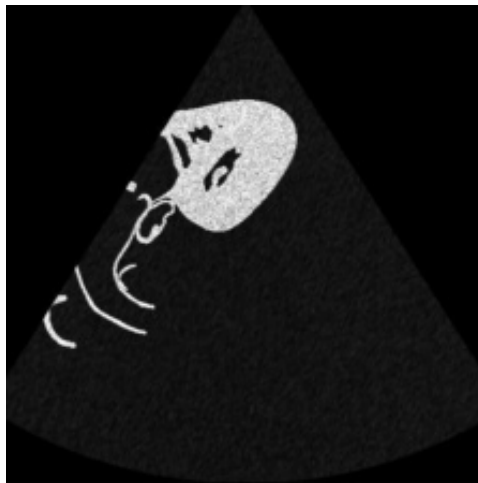
Slide the probe slightly upwards, roll it to the left, and tilt it forward.

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Example 4



Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05197792872786522,"y":-0.02014879882335663,"z":-0.0035193562507629396},"rotation":{"x":30.0,"y":12.0,"z":23.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Tilt the probe moderately downward.
</reasoning>
<answer>
{"position":{"x":-20,"y":40,"z":-10},"rotation":{"x":0,"y":90,"z":0}}
</answer>
```

#### Extracted Reasoning:

Tilt the probe moderately downward.

#### Extracted Answer:

```
{"position":{"x":-20,"y":40,"z":-10},"rotation":{"x":0,"y":90,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
The image shows a parasternal view, which is correct but slightly
rotated. We need to tilt the image slightly to align it with the
standard PLAX view.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
</answer>
```

#### Extracted Reasoning:

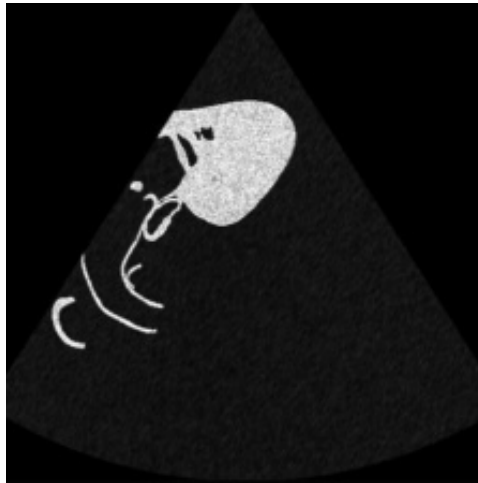
The image shows a parasternal view, which is correct but slightly rotated. We need to tilt the image slightly to align it with the standard PLAX view.

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

## Example 5



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05263088643550873,"y":-0.021262675523757936,"z":-0.00336572527885437},"rotation":{"x":30.0,"y":13.0,"z":23.0}}

## Completion -1.0

### Full Model Output:

```
<reasoning>
Slide the ultrasound probe to the left, rotate it slightly
counterclockwise, and lift it up slightly to get the PLAX view.
</reasoning>
<answer>
```

```
{"position":{"x":-10,"y":0,"z":0},"rotation":{"x":0,"y":-10,"z":0}}
</answer>
```

**Extracted Reasoning:**

Slide the ultrasound probe to the left, rotate it slightly counterclockwise, and lift it up slightly to get the PLAX view.

**Extracted Answer:**

```
{"position":{"x":-10,"y":0,"z":0},"rotation":{"x":0,"y":-10,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

**Completion -1.0****Full Model Output:**

```
<reasoning>
Rotate the probe 20 degrees to the right
</reasoning>
<answer>
{"position":{"x":0.5,"y":0.5,"z":0.5},"rotation":{"x":0,"y":0,"z":20}}
</answer>
```

**Extracted Reasoning:**

Rotate the probe 20 degrees to the right

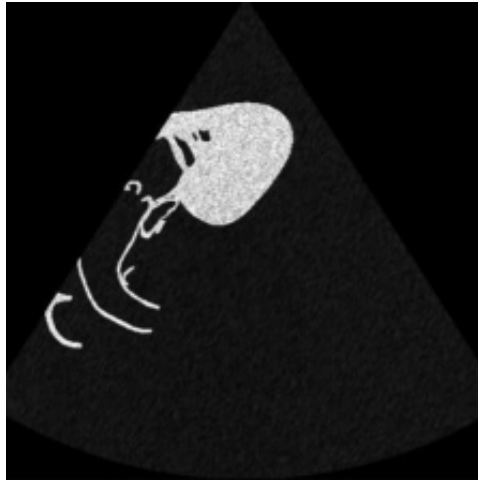
**Extracted Answer:**

```
{"position":{"x":0.5,"y":0.5,"z":0.5},"rotation":{"x":0,"y":0,"z":20}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

**Example 6**





**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05299539864063263,"y":-0.02299174666404724,"z":-0.0028792917728424074},"rotation":{"x":31.0,"y":12.0,"z":23.0}}

**Completion -1.5**

**Full Model Output:**

```
<reasoning>
The image shows a transverse view, indicating a need to rotate the
probe to obtain a parasternal long-axis view.
</reasoning>
<answer>{"position":{"x":0,"y":-30,"z":0},"rotation":{"x":0,"y":-90,"z":0}} </answer>
```

**Extracted Reasoning:**

The image shows a transverse view, indicating a need to rotate the probe to obtain a parasternal long-axis view.

**Extracted Answer:**

```
{"position":{"x":0,"y":-30,"z":0},"rotation":{"x":0,"y":-90,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000

xml	0.0000
-----	--------

Completion -2.0

Full Model Output:

The image shows a cross-sectional view, which is not suitable for a PLAX view. Adjust the probe to a long-axis view, likely by tilting it horizontally and adjusting the depth.

```
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":"tilt_horizontal", "z":0}}
</answer>
```

Extracted Reasoning:

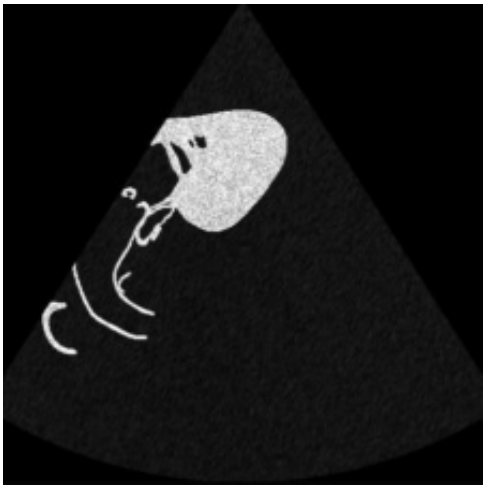
N/A

Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":"tilt_horizontal", "z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.0000

Example 7



Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
```

```
(one short sentence - feel free to mention slide / roll / fan / rotate / tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05298867076635361,"y":-0.024206414818763734,"z":-0.0027830302715301515},"rotation":{"x":31.0,"y":12.0,"z":22.0}}

### Completion -1.5

#### Full Model Output:

```
<reasoning>Rotate 160 degrees around the Z-axis</reasoning>
<answer>{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":160}}
</answer>
```

#### Extracted Reasoning:

Rotate 160 degrees around the Z-axis

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":160}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.0000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Slide probe, adjust to optimal position.
</reasoning>
<answer>
{"position":{"x":100,"y":50,"z":200},"rotation":{"x":0,"y":20,"z":30}}
</answer>
```

#### Extracted Reasoning:

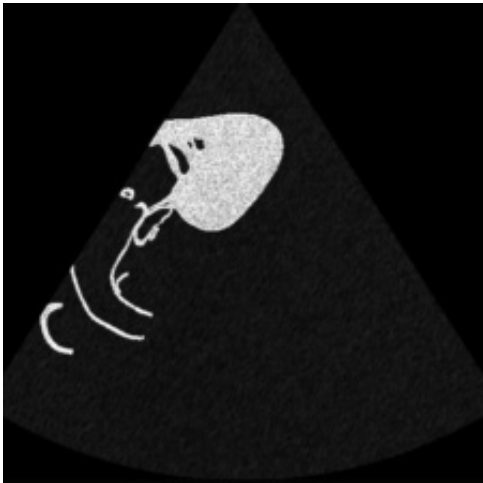
Slide probe, adjust to optimal position.

#### Extracted Answer:

```
{"position":{"x":100,"y":50,"z":200},"rotation":{"x":0,"y":20,"z":30}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

Example 8



**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
 / tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05240284278988838,"y":-0.024828225374221803,"z":-0.0022019147872924806},"rotation":{"x":31.0,"y":10.0,"z":21.0}}

Completion -1.0

**Full Model Output:**

```
<reasoning>
rotate the probe slightly counterclockwise
</reasoning>
<answer>
{"position":{"x":-10,"y":-50,"z":0},"rotation":{"x":-45,"y":0,"z":0}}
</answer>
```

**Extracted Reasoning:**

rotate the probe slightly counterclockwise

**Extracted Answer:**

```
{"position":{"x":-10,"y":-50,"z":0},"rotation":{"x":-45,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000

keywords	0.5000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
The probe is angled more toward the apex, so adjust the fan and
rotation to align the heart's long axis.
</reasoning>
<answer>
{"position":{"x":10,"y":0,"z":5},"rotation":{"x":20,"y":-30,"z":0}}
</answer>
```

#### Extracted Reasoning:

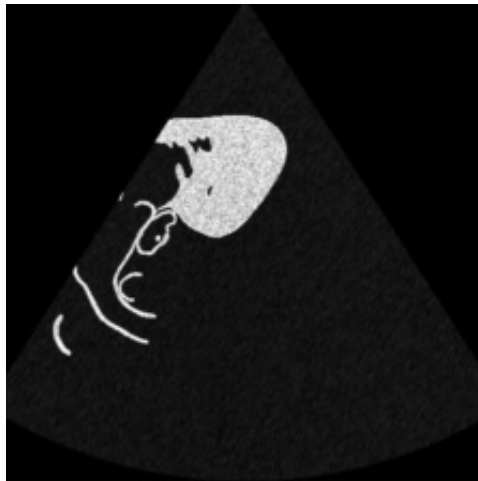
The probe is angled more toward the apex, so adjust the fan and rotation to align the heart's long axis.

#### Extracted Answer:

```
{"position":{"x":10,"y":0,"z":5},"rotation":{"x":20,"y":-30,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Example 9



#### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05233291536569595,"y":-0.025199010968208314,"z":-0.002280116081237793},"rotation":{"x":32.0,"y":9.0,"z":21.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Slide the probe left and tilt the beam down.
</reasoning>
<answer>
{"position":{"x":1,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
</answer>
```

#### Extracted Reasoning:

Slide the probe left and tilt the beam down.

#### Extracted Answer:

```
{"position":{"x":1,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```
<reasoning>
rotate the probe to the right until the left ventricle is visible
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
</answer>
```

#### Extracted Reasoning:

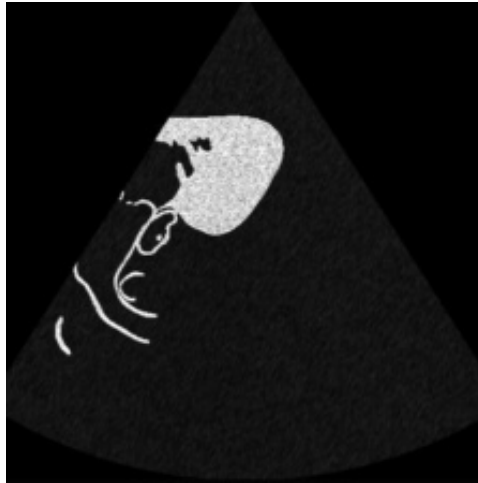
rotate the probe to the right until the left ventricle is visible

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

## Example 10



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.052994757890701297,"y":-0.023809358477592469,"z":0.0008187592029571533},"rotation":{"x":31.0,"y":5.0,"z":21.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Fan the probe slightly clockwise and tilt upward.
</reasoning>
<answer>
{"position":{"x":-20,"y":5,"z":-10},"rotation":{"x":30,"y":10,"z":-15}}
</answer>
```

#### Extracted Reasoning:

Fan the probe slightly clockwise and tilt upward.

#### Extracted Answer:

```
{"position":{"x":-20,"y":5,"z":-10},"rotation":{"x":30,"y":10,"z":-15}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.5

#### Full Model Output:

```

<reasoning>
The ultrasound image shows the head is in an adequate position for a
parasternal long-axis view, but the image needs to have the probe
rotated to the right to view the heart in cross-section.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
</answer>

```

#### Extracted Reasoning:

The ultrasound image shows the head is in an adequate position for a parasternal long-axis view, but the image needs to have the probe rotated to the right to view the heart in cross-section.

#### Extracted Answer:

```

{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}

```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

### Example 11



Prompt:



You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05261314660310745,"y":-0.024336546659469606,"z":0.0027676820755004884},"rotation":{"x":33.0,"y":1.0,"z":22.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Slide probe to the right and tilt upwards to visualize the left
ventricle.
</reasoning>
<answer>
{"position":{"x":10,"y":10,"z":0},"rotation":{"x":0,"y":45,"z":0}}
</answer>
```

#### Extracted Reasoning:

Slide probe to the right and tilt upwards to visualize the left ventricle.

#### Extracted Answer:

```
{"position":{"x":10,"y":10,"z":0},"rotation":{"x":0,"y":45,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -1.5

#### Full Model Output:

```
<reasoning>
The probe needs to be rotated to the left to capture the PLAX view.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":-60,"y":0,"z":0}}
</answer>
```

#### Extracted Reasoning:

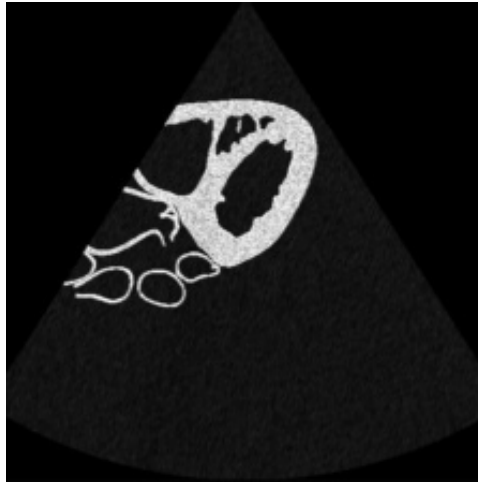
The probe needs to be rotated to the left to capture the PLAX view.

#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":-60,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

## Example 12



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.06086133420467377,"y":-0.02439582347869873,"z":0.006329208612442017},"rotation":{"x":30.0,"y":-6.0,"z":17.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
rotate 90 degrees on the z-axis to align with the heart
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
</answer>
```

**Extracted Reasoning:**

rotate 90 degrees on the z-axis to align with the heart

**Extracted Answer:**

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

**Completion -2.0**

**Full Model Output:**

Reasoning: The probe is positioned and rotated in a manner to capture the parasternal long-axis view, focusing on the left ventricular outflow tract and heart chambers.

```
<answer>
{"position":{"x":-45,"y":0,"z":0},"rotation":{"x":0,"y":90,"z":0}}
</answer>
```

**Extracted Reasoning:**

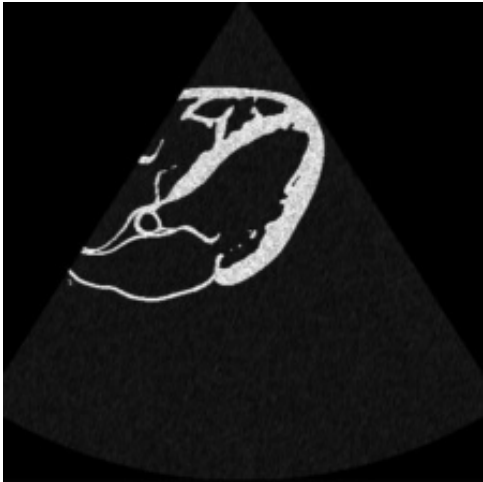
N/A

**Extracted Answer:**

```
{"position":{"x":-45,"y":0,"z":0},"rotation":{"x":0,"y":90,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.0000

**Example 13**



**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05959923937916756,"y":-0.026618927717208864,"z":0.0015810728073120118},"rotation":{"x":33.0,"y":-5.0,"z":16.0}}

**Completion -1.0**

**Full Model Output:**

```
<reasoning>
The image shows a parasternal long-axis (PLAX) view of the heart. The
probe is positioned correctly to capture the heart in this view
without any need for rotation or tilt adjustments.
</reasoning>
<answer>
{"position":{"x":0,"y":-50,"z":50}}
</answer>
```

**Extracted Reasoning:**

The image shows a parasternal long-axis (PLAX) view of the heart. The probe is positioned correctly to capture the heart in this view without any need for rotation or tilt adjustments.

**Extracted Answer:**

{"position":{"x":0,"y":-50,"z":50}}

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

**Completion -1.0**

**Full Model Output:**

```
<reasoning>
Slide left and tilt up slightly.
</reasoning>
<answer>
{"position":{"x":-20,"y":0,"z":0},"rotation":{"x":0,"y":10,"z":45}}
</answer>
```

**Extracted Reasoning:**

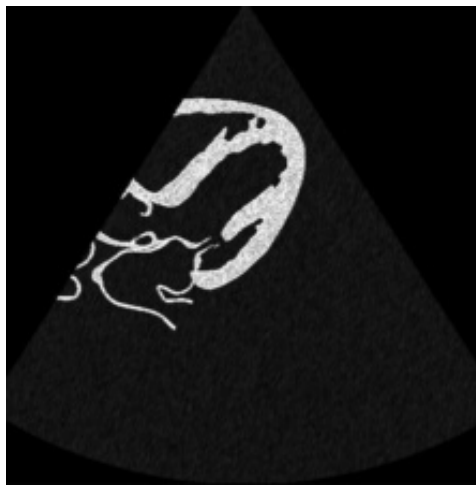
Slide left and tilt up slightly.

**Extracted Answer:**

```
{"position":{"x":-20,"y":0,"z":0},"rotation":{"x":0,"y":10,"z":45}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

**Example 14**



**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05505891889333725,"y":-0.02859523892402649,"z":0.0010935962200164796},"rotation":{"x":36.0,"y":-6.0,"z":18.0}}

**Completion -1.5**

**Full Model Output:**

```
<reasoning>
Rotating the probe slightly upwards and to the left while tilting it
```

```

downward might improve the visualization of the parasternal long-axis
view.
</reasoning>
<answer>
{"position":{"x":-10,"y":10,"z":20},"rotation":{"x":-10,"y":10,"z":-10
}}
</answer>

```

#### Extracted Reasoning:

Rotating the probe slightly upwards and to the left while tilting it downward might improve the visualization of the parasternal long-axis view.

#### Extracted Answer:

```

{"position":{"x":-10,"y":10,"z":20},"rotation":{"x":-10,"y":10,"z":-10
}}

```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

### Completion -1.0

#### Full Model Output:

```

<reasoning>
Slide the sector down and rotate the image to the right to align the
heart long axis.
</reasoning>
<answer>
{"position":{"x":45,"y":-20,"z":0},"rotation":{"x":0,"y":45,"z":0}}
</answer>

```

#### Extracted Reasoning:

Slide the sector down and rotate the image to the right to align the heart long axis.

#### Extracted Answer:

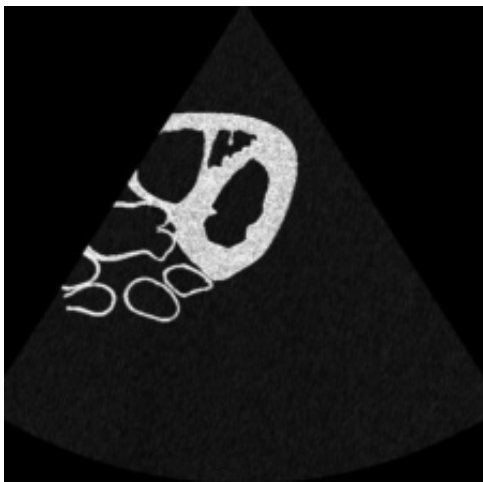
```

{"position":{"x":45,"y":-20,"z":0},"rotation":{"x":0,"y":45,"z":0}}

```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

## Example 15



**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
 / tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05797026678919792,"y":-0.03002116084098816,"z":-0.0024569332599639894},"rotation":{"x":35.0,"y":-4.0,"z":16.0}}

**Completion -1.0**

**Full Model Output:**

```
<reasoning>
Rotate the probe to the left (tilt) and decrease the image's fan angle
to focus on the heart.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-30}}
</answer>
```

**Extracted Reasoning:**

Rotate the probe to the left (tilt) and decrease the image's fan angle to focus on the heart.

**Extracted Answer:**

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-30}}
```

Metric	Value
numeric	-3.0000

keywords	0.5000
xml	0.5000

### Completion -1.5

#### Full Model Output:

```
<reasoning>
The image shows a skull, which indicates that the patient is in a
supine position, and the probe is likely in a subcostal location, but
further information is needed to provide the optimal PLAX view.
</reasoning>
<answer>
{"position":{"x":-20,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
</answer>
```

#### Extracted Reasoning:

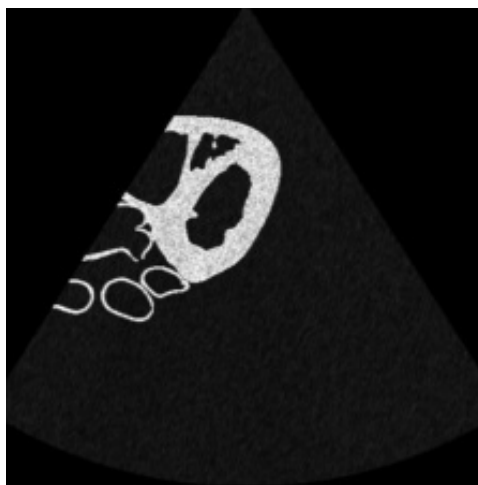
The image shows a skull, which indicates that the patient is in a supine position, and the probe is likely in a subcostal location, but further information is needed to provide the optimal PLAX view.

#### Extracted Answer:

```
{"position":{"x":-20,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":-90}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

### Example 16



#### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.



Respond **\*\*exactly\*\*** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
 / tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05490908771753311,"y":-0.0309017151594162,"z":-0.00022047758102416992},"rotation":{"x":36.0,"y":-7.0,"z":16.0}}

### Completion -1.0

#### Full Model Output:

```
<reasoning>
Slide the probe slightly right and up to find the PLAX view.
</reasoning>
<answer>
{"position":{"x":0.3,"y":0.4,"z":0.0},"rotation":{"x":0.0,"y":0.0,"z":
-0.2}}
</answer>
```

#### Extracted Reasoning:

Slide the probe slightly right and up to find the PLAX view.

#### Extracted Answer:

```
{"position":{"x":0.3,"y":0.4,"z":0.0},"rotation":{"x":0.0,"y":0.0,"z":
-0.2}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.5000

### Completion -2.0

#### Full Model Output:

To achieve the parasternal long-axis view, the probe should be rotated slightly clockwise and tilted downward.

```
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":-30,"y":0,"z":-20}}
</answer>
```

#### Extracted Reasoning:

N/A

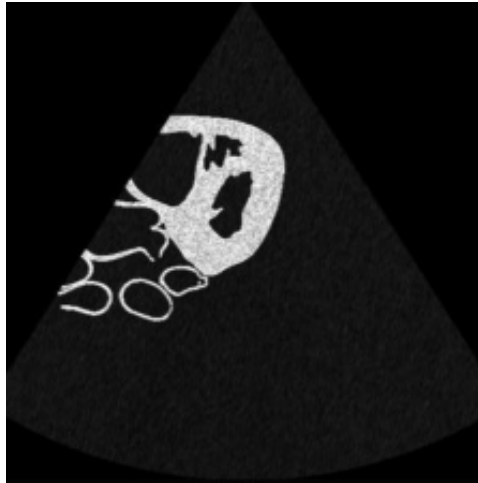
#### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":-30,"y":0,"z":-20}}
```

Metric	Value
numeric	-3.0000

keywords	0.0000
xml	0.0000

## Example 17



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.05487971752882004,"y":-0.03166823089122772,"z":-0.002008676528930664},"rotation":{"x":37.0,"y":-7.0,"z":16.0}}

## Completion -1.5

### Full Model Output:

```
<reasoning>
The probe is in an optimal position for a parasternal long-axis view
as shown.
</reasoning>
<answer>
{"position":{"x":180,"y":0,"z":90},"rotation":{"x":0,"y":0,"z":0}}
</answer>
```

### Extracted Reasoning:

The probe is in an optimal position for a parasternal long-axis view as shown.

**Extracted Answer:**

```
{"position":{"x":180,"y":0,"z":90},"rotation":{"x":0,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

**Completion -1.5****Full Model Output:**

```
<reasoning>
The image shows the cardiac view from a parasternal long-axis
position, so no further probe adjustment is needed.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
</answer>
```

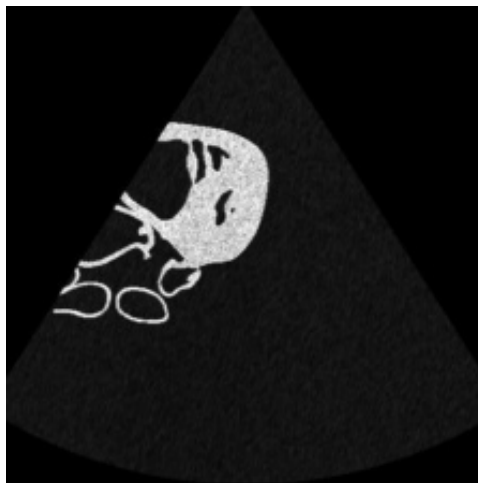
**Extracted Reasoning:**

The image shows the cardiac view from a parasternal long-axis position, so no further probe adjustment is needed.

**Extracted Answer:**

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

**Example 18****Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.054772332310676578,"y":-0.031630948185920718,"z":-0.003184080123901367},"rotation":{"x":38.0,"y":-9.0,"z":13.0}}

## Completion -1.5

### Full Model Output:

```
<reasoning>
rotate the probe slightly counterclockwise and decrease the fan angle.
</reasoning>
<answer>
{"position":{"x":0,"y":30,"z":0},"rotation":{"x":15,"y":0,"z":0}}
</answer>
```

### Extracted Reasoning:

rotate the probe slightly counterclockwise and decrease the fan angle.

### Extracted Answer:

```
{"position":{"x":0,"y":30,"z":0},"rotation":{"x":15,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.0000

## Completion -1.5

### Full Model Output:

```
<reasoning>
Increase probe rotation towards the apex of the heart.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
</answer>
```

### Extracted Reasoning:

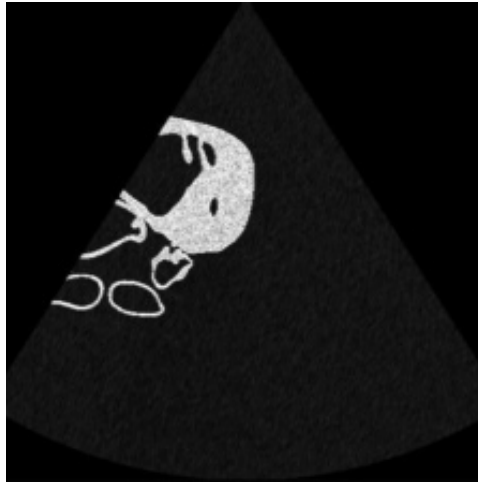
Increase probe rotation towards the apex of the heart.

### Extracted Answer:

```
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":0,"z":90}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

## Example 19



### Prompt:

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.054352641105651858,"y":-0.031267374753952029,"z":-0.003087759017944336},"rotation":{"x":38.0,"y":-11.0,"z":12.0}}

### Completion -1.5

#### Full Model Output:

```
<reasoning>Slide the probe approximately 5 mm to the left and rotate
it approximately 5 degrees counterclockwise.</reasoning>
<answer>
{"position":{"x":-5,"y":0,"z":0},"rotation":{"x":0,"y":5,"z":0}}
</answer>
```

**Extracted Reasoning:**

Slide the probe approximately 5 mm to the left and rotate it approximately 5 degrees counterclockwise.

**Extracted Answer:**

```
{"position":{"x":-5,"y":0,"z":0},"rotation":{"x":0,"y":5,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.5000
xml	0.0000

**Completion -1.5****Full Model Output:**

```
<reasoning>
The probe should be rotated to align with the heart's long axis,
typically starting with a lateral approach and then adjusting the
probe to the appropriate angle.
</reasoning>
<answer>
{"position":{"x":10,"y":150,"z":0},"rotation":{"x":-45,"y":0,"z":0}}
</answer>
```

**Extracted Reasoning:**

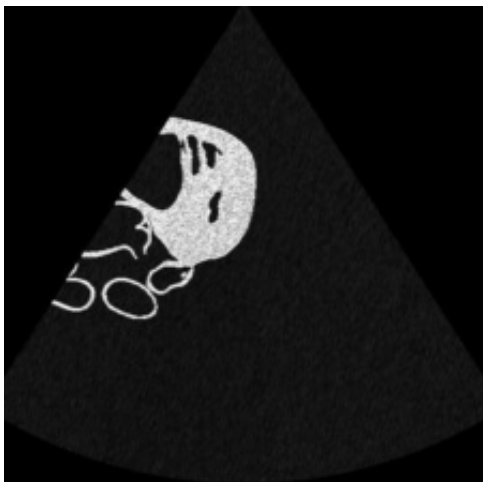
The probe should be rotated to align with the heart's long axis, typically starting with a lateral approach and then adjusting the probe to the appropriate angle.

**Extracted Answer:**

```
{"position":{"x":10,"y":150,"z":0},"rotation":{"x":-45,"y":0,"z":0}}
```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000

**Example 20**



**Prompt:**

You will be shown a freeze-frame from a point-of-care ultrasound scan. Return a JSON blob giving the **probe transform** that produces an optimal parasternal long-axis (PLAX) view.

Respond **exactly** like this:

```
<reasoning>
(one short sentence - feel free to mention slide / roll / fan / rotate
/ tilt)
</reasoning>
<answer>
{"position":{"x":XX,"y":YY,"z":ZZ},"rotation":{"x":RX,"y":RY,"z":RZ}}
</answer>
```

Do not put any other text after </answer>.

**Ground Truth Answer:** {"position":{"x":-0.0540967658162117,"y":-0.030985325574874879,"z":-0.004267305135726929},"rotation":{"x":38.0,"y":-12.0,"z":11.0}}

**Completion -1.5**

**Full Model Output:**

```
<reasoning>
The image appears to be a sector scan with a probe positioned
horizontally and slightly tilted downward. For an optimal PLAX view,
the probe should be rotated more laterally and slightly upward.
</reasoning>
<answer>
{"position":{"x":100,"y":50,"z":0},"rotation":{"x":45,"y":0,"z":0}}
</answer>
```

**Extracted Reasoning:**

The image appears to be a sector scan with a probe positioned horizontally and slightly tilted downward. For an optimal PLAX view, the probe should be rotated more laterally and slightly upward.

**Extracted Answer:**

```
{"position":{"x":100,"y":50,"z":0},"rotation":{"x":45,"y":0,"z":0}}
```

Metric	Value
--------	-------

numeric	-3.0000
keywords	0.0000
xml	0.5000

### Completion -1.5

#### Full Model Output:

```

<reasoning>
The probe is positioned too shallow for a PLAX view; it needs to be
tilted downward.
</reasoning>
<answer>
{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":-30,"z":0}}
</answer>

```

#### Extracted Reasoning:

The probe is positioned too shallow for a PLAX view; it needs to be tilted downward.

#### Extracted Answer:

```

{"position":{"x":0,"y":0,"z":0},"rotation":{"x":0,"y":-30,"z":0}}

```

Metric	Value
numeric	-3.0000
keywords	0.0000
xml	0.5000