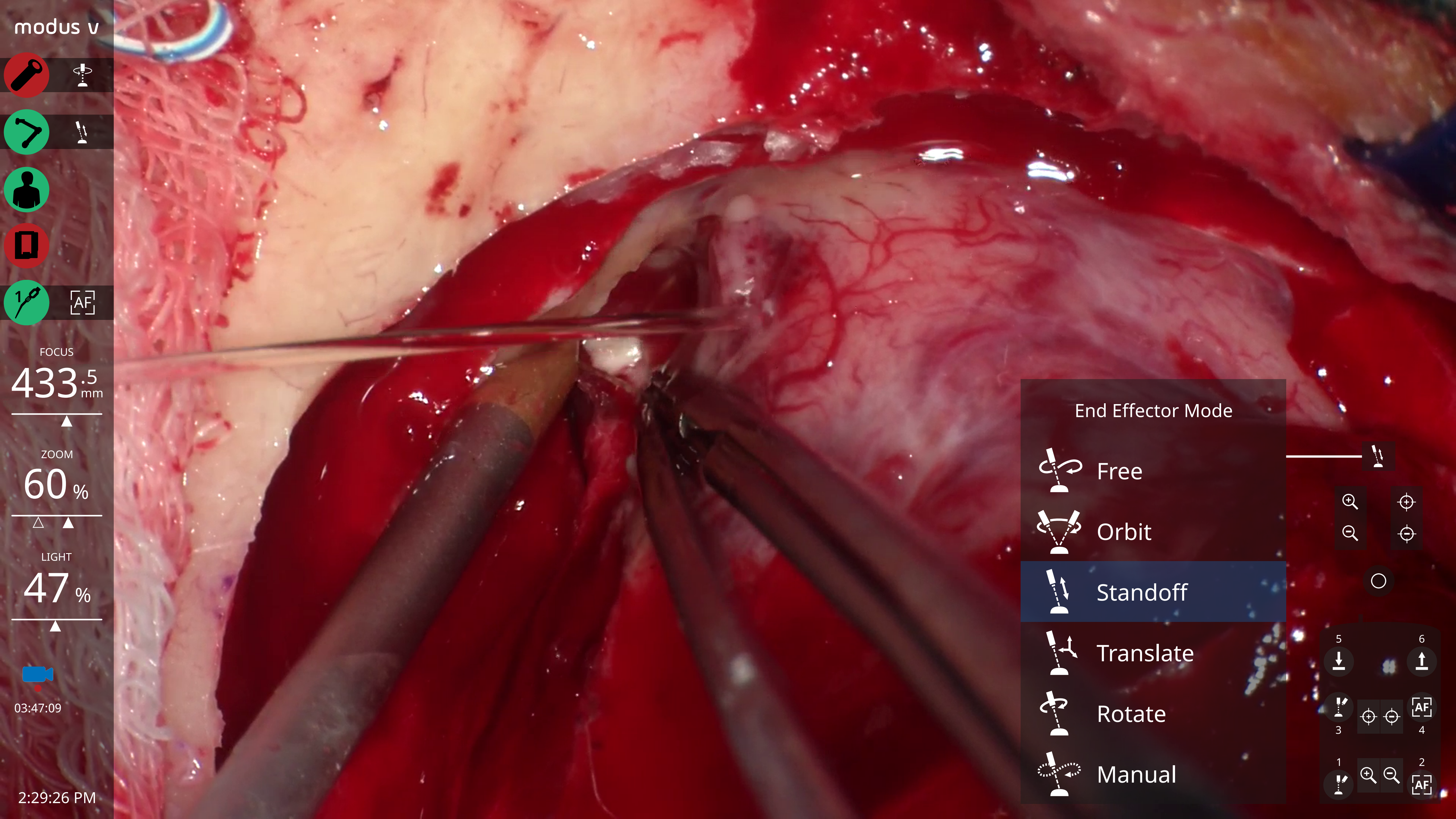










Modus V

Surgical Overlay Concept

Current Overlay




modus v

-  
-  
-  
-  
-  

FOCUS
433.5 mm

ZOOM
60 %

















LIGHT
47 %


03:47:09

2:29:26 PM

End Effector Mode

-  Free
-  Orbit
-  Standoff
-  Translate
-  Rotate
-  Manual

- 
-  
-  
- 
-  
-    
-    

New Overlay Concept



Suction 2 tool is not visible.

Memory position saved.

Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset

Colour Boost 5

Tool

Alignment

REC 3:47:09

5 hours left

15:17:42

modus v

5

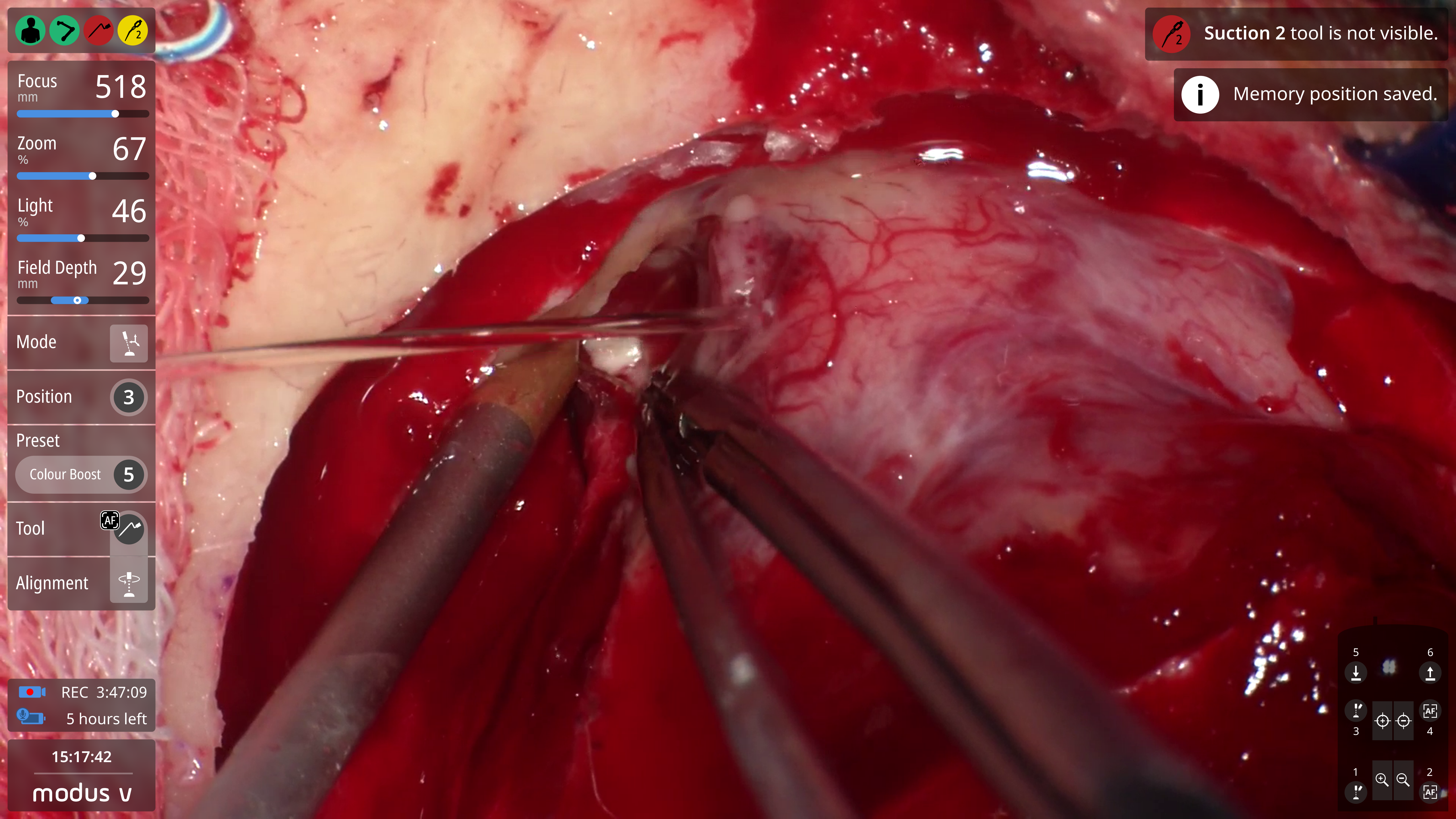
6

3

4

1

2



Trigger Menus

Trigger menus are a proposed new feature for the CAS-lite environment.

It's desirable to give the surgeon direct control over many frequently-used Modus V functions that, currently, can only be accessed using the touchscreen user interface. The new voice control feature will accomplish this, but an alternative means of accessing these functions may prove beneficial, especially if a user is unable or unwilling to use voice control.



Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode

Position 3

Preset
Colour Boost 5

Tool

Alignment

Free

Orbit

Standoff

Translate

Rotate

Manual

← BACK

Actuating the end effector center toggle switch (in either direction) activates trigger menus, currently: Arm Mode, Tracked Tool, Alignment, Camera Preset, and Memory Position.

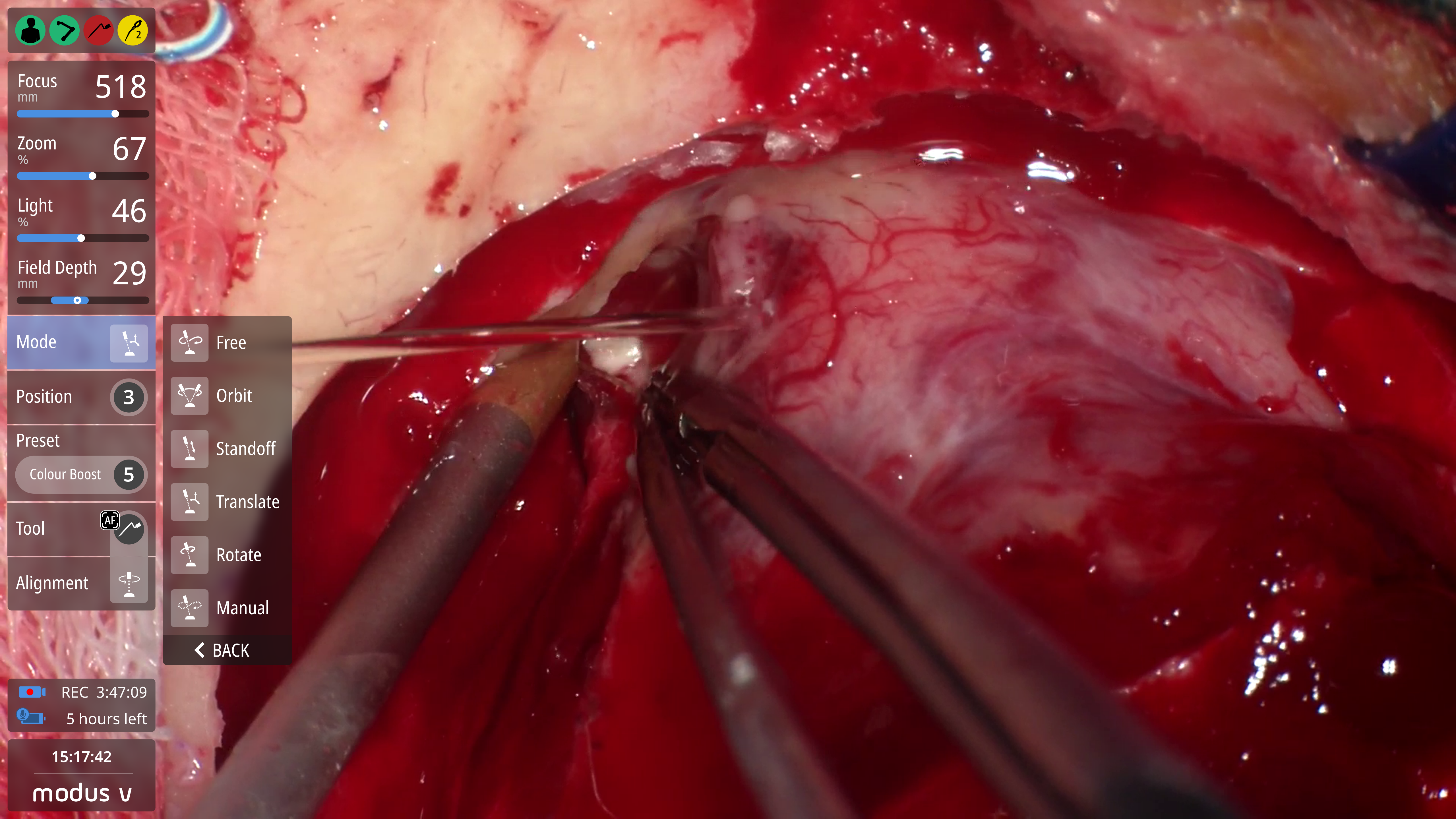
If no switches are actuated at this point, trigger submenus will disappear after a few seconds.

center toggle switch

trigger button

REC 3:47:09
5 hours left

15:17:42
modus v



Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode

Position 3

Preset
Colour Boost 5

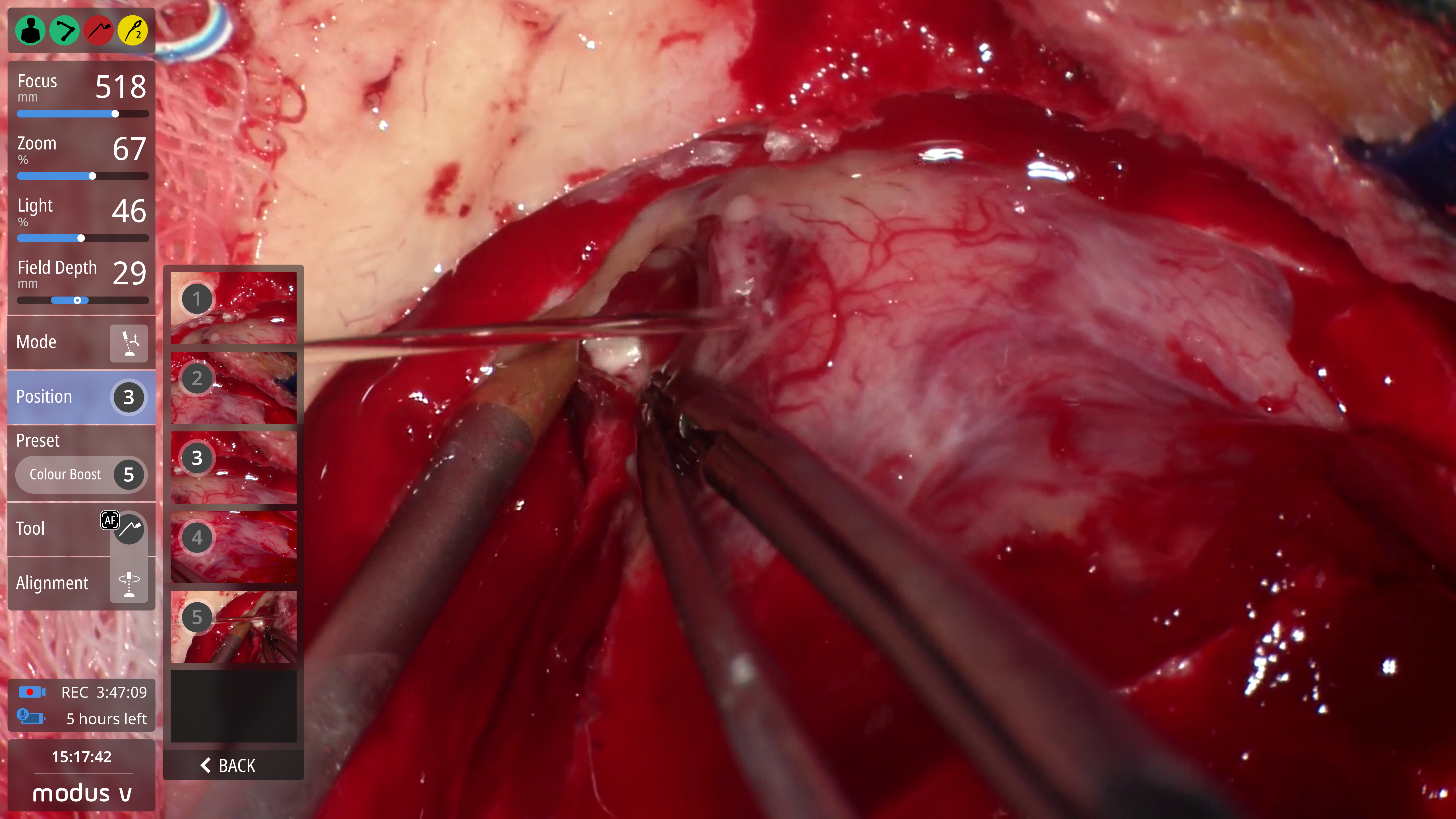
Tool

Alignment

- Free
- Orbit
- Standoff
- Translate
- Rotate
- Manual
- BACK

REC 3:47:09
5 hours left

15:17:42
modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset Colour Boost 5

Tool

Alignment



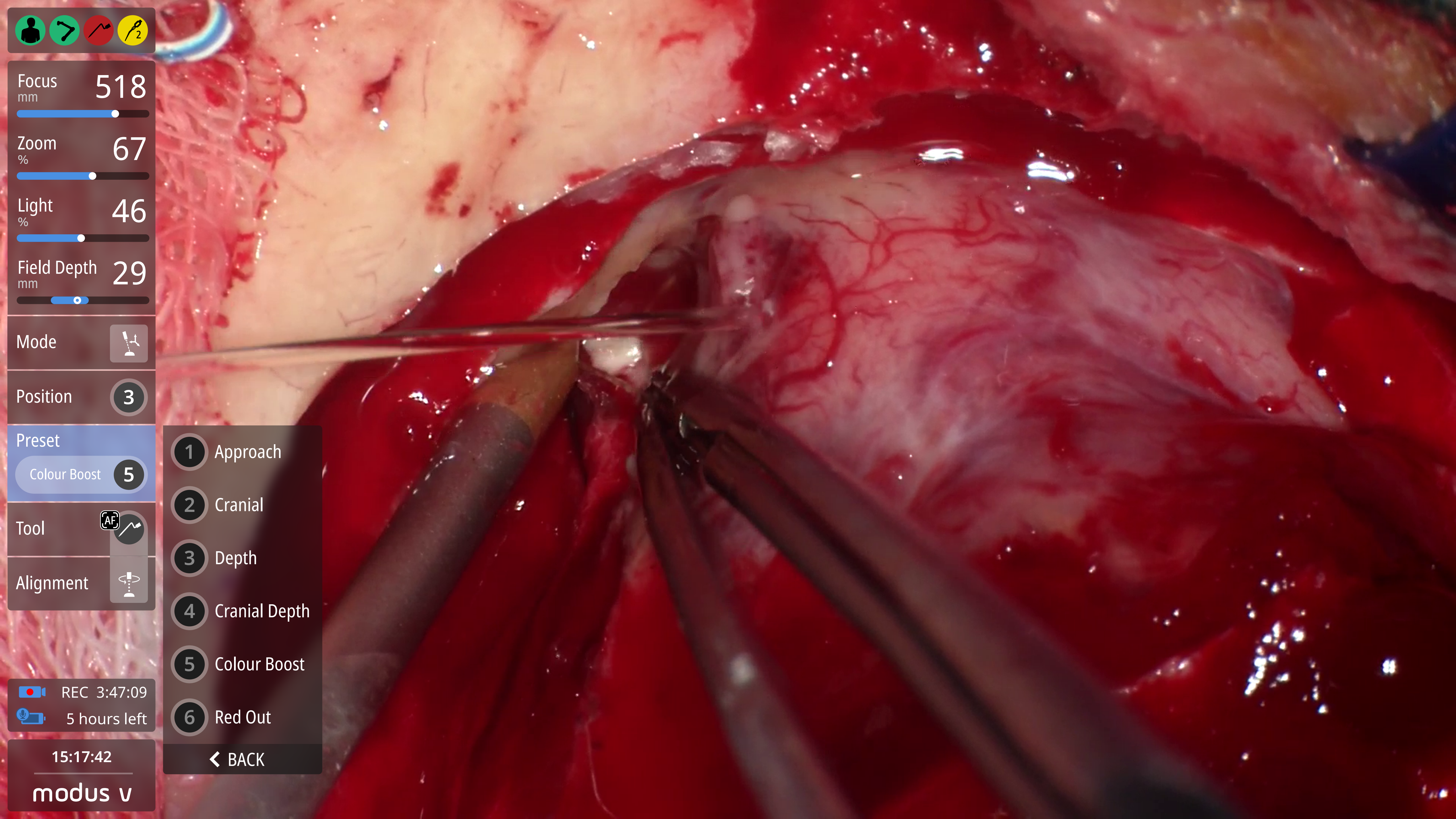
REC 3:47:09

5 hours left

15:17:42

modus v

← BACK



Focus
mm 518

Zoom
% 67

Light
% 46

Field Depth
mm 29

Mode 

Position **3**

Preset

Colour Boost **5**

Tool 

Alignment 

REC 3:47:09

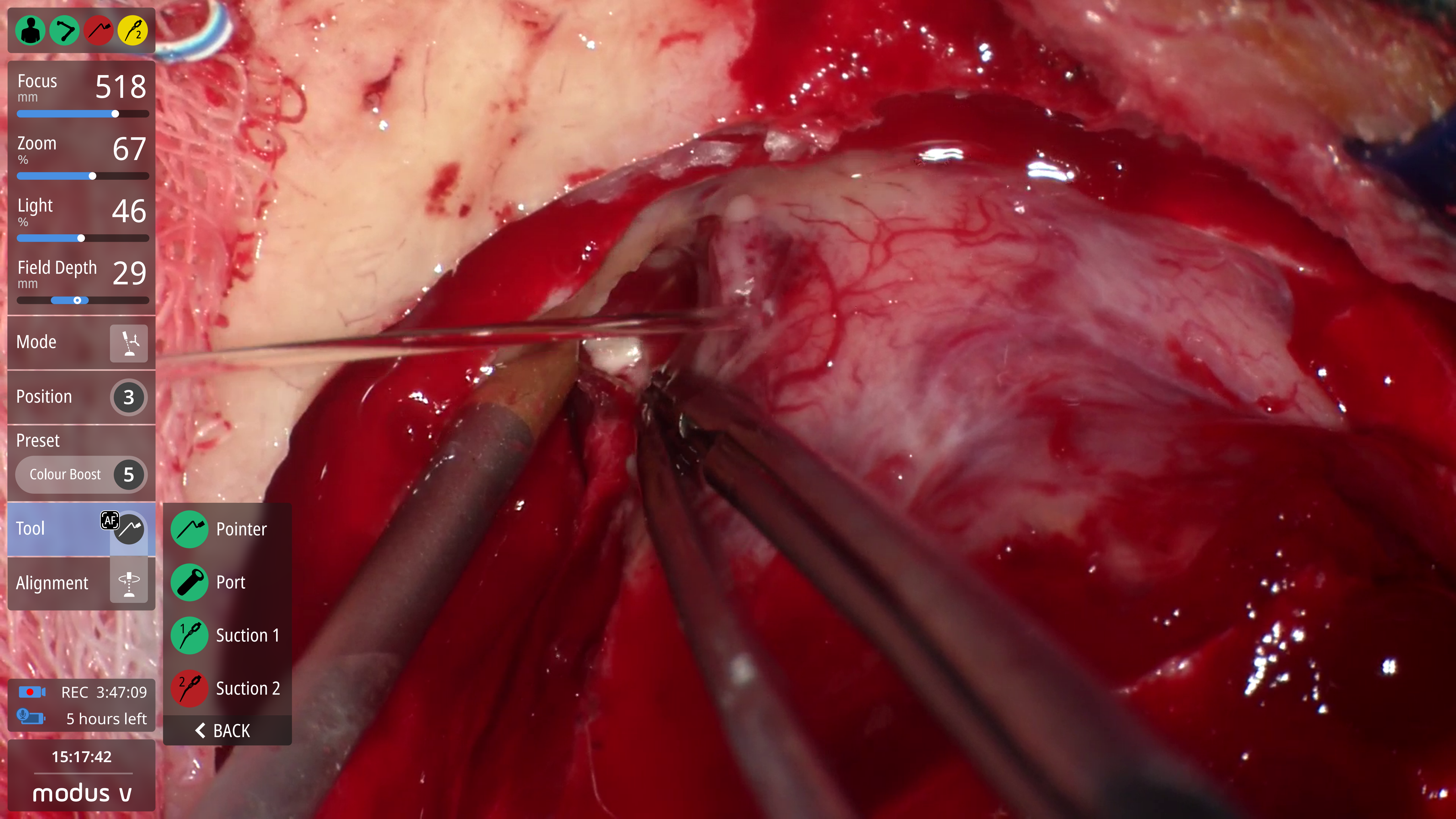
5 hours left

15:17:42

modus v

- 1** Approach
- 2** Cranial
- 3** Depth
- 4** Cranial Depth
- 5** Colour Boost
- 6** Red Out

< BACK



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29


Mode 

Position 3

Preset Colour Boost 5

Tool 

Alignment 

 Pointer

 Port

 Suction 1

 Suction 2

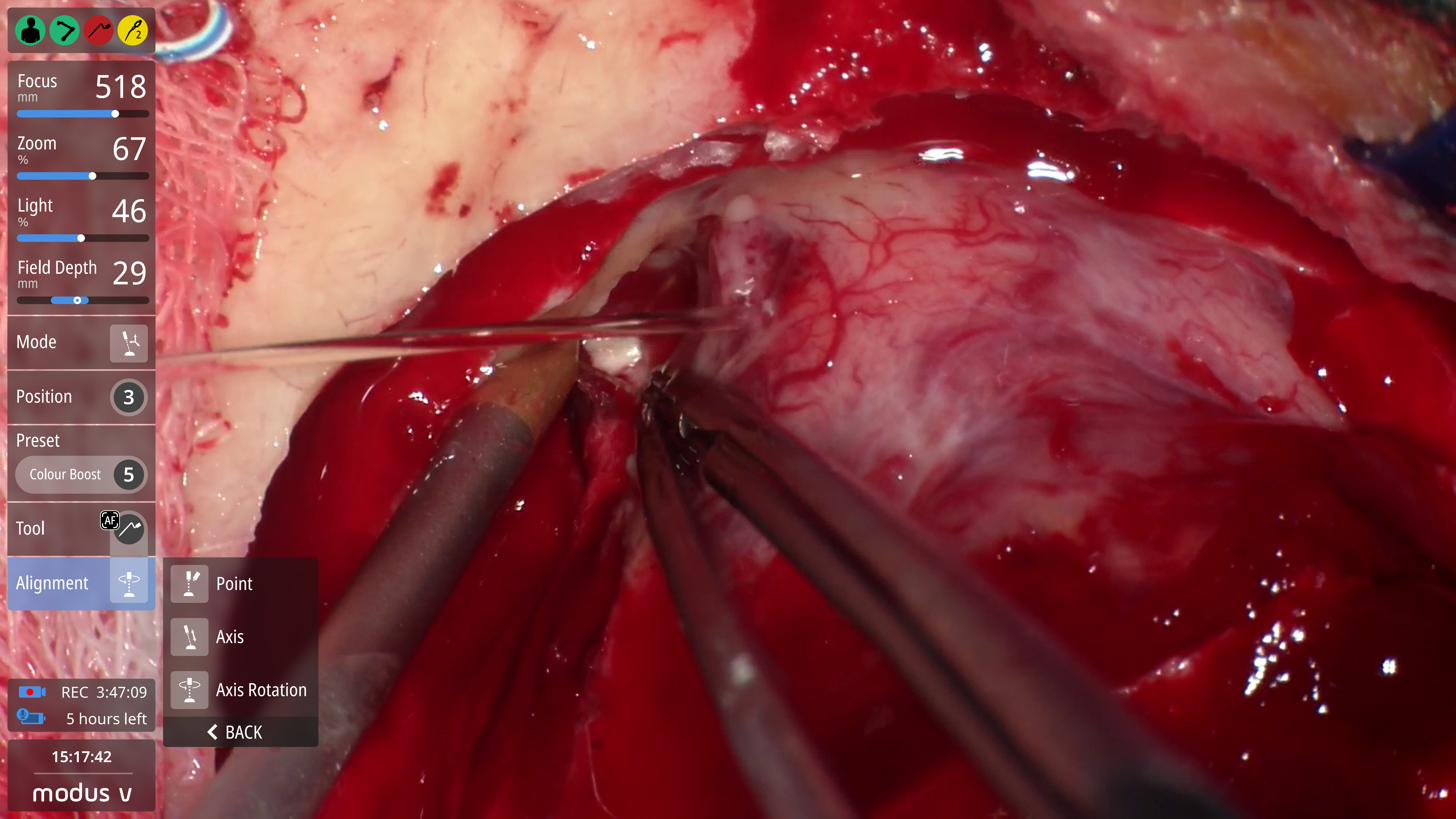
 BACK

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset Colour Boost 5

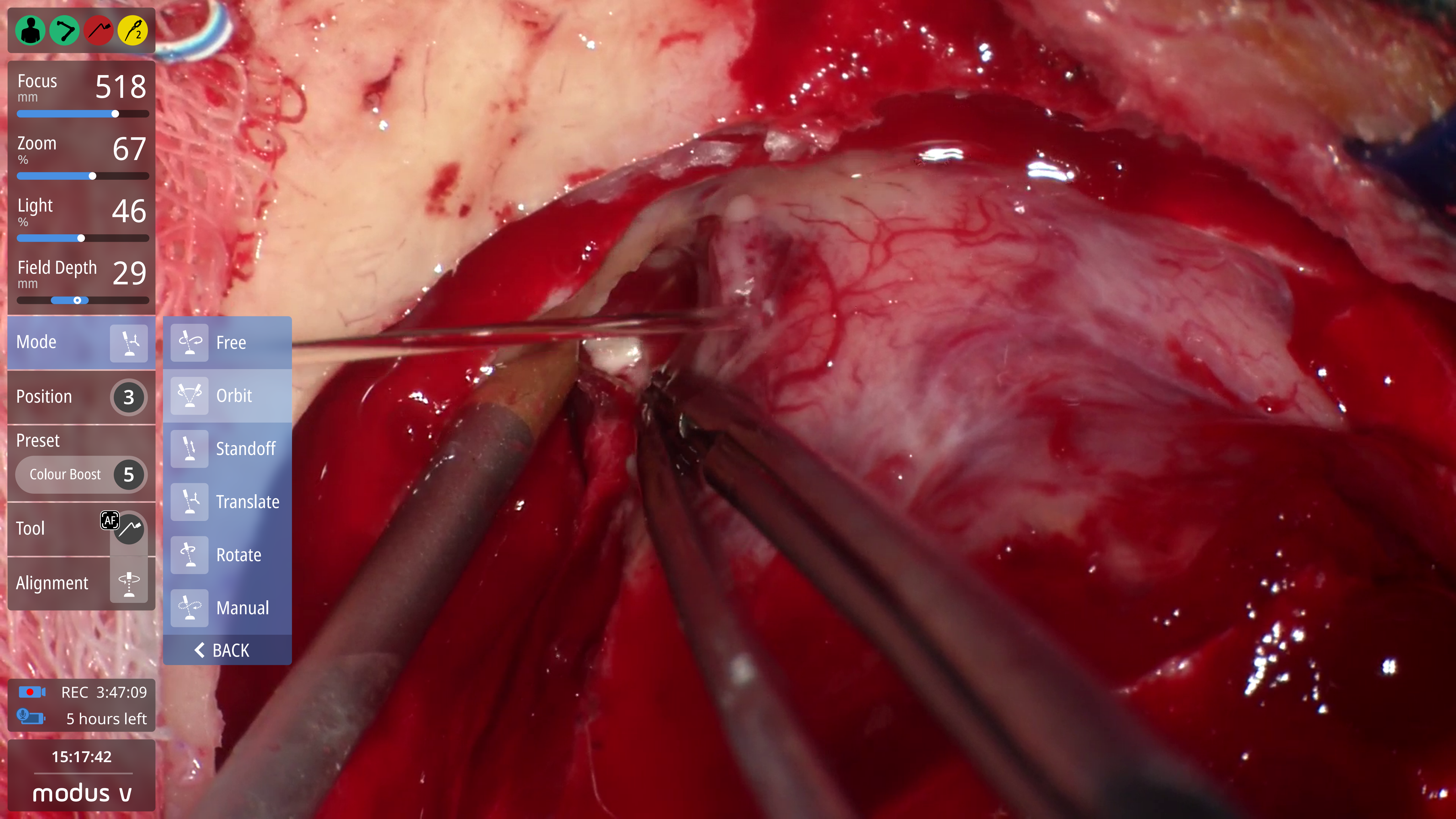
Tool

Alignment

- Point
- Axis
- Axis Rotation
- BACK

REC 3:47:09
5 hours left

15:17:42
modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset
Colour Boost 5

Tool

Alignment

Free

Orbit

Standoff

Translate

Rotate

Manual

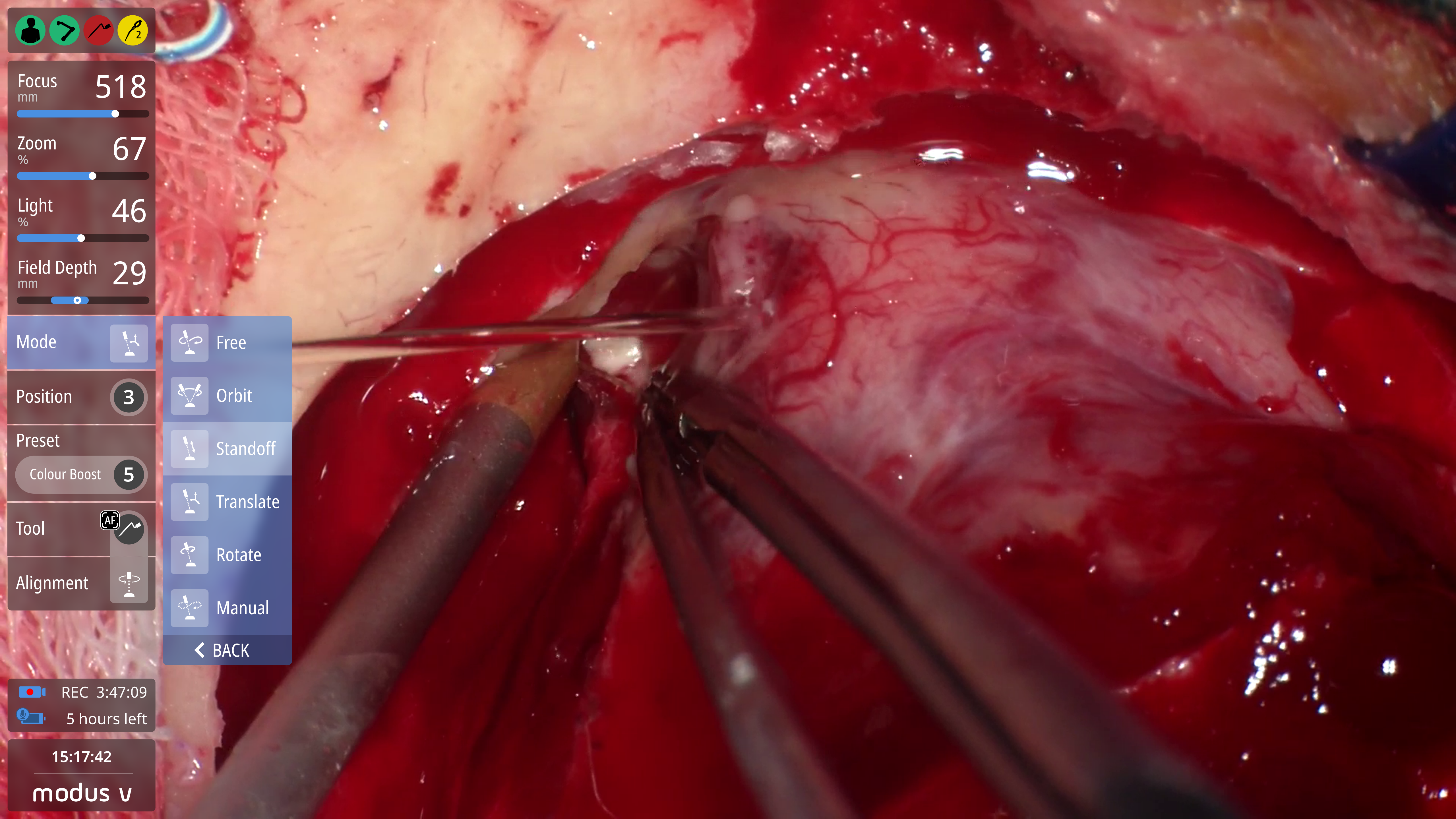
BACK

REC 3:47:09

5 hours left

15:17:42

modus v



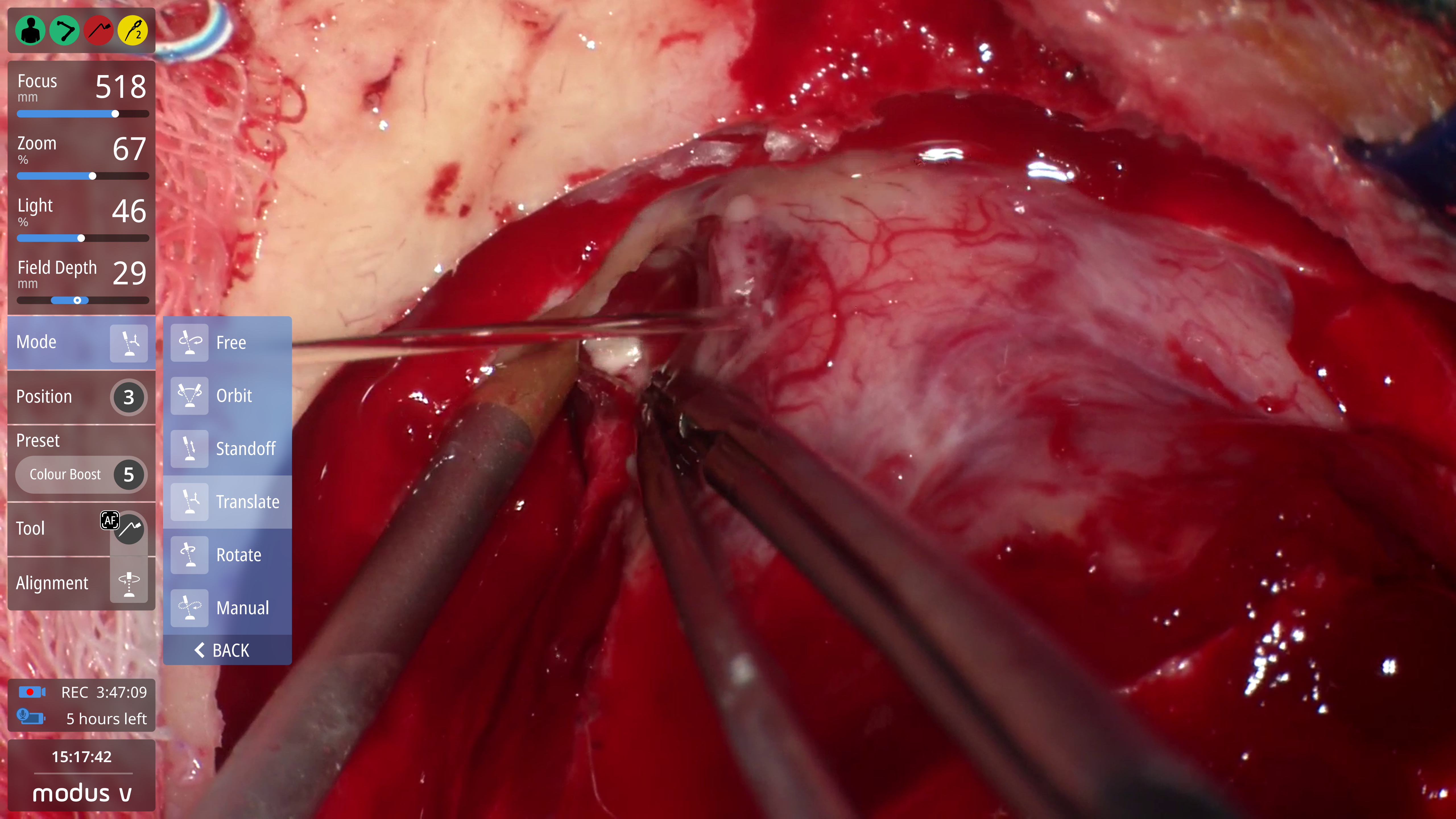
Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode 3
Preset Colour Boost 5
Tool
Alignment

Free
 Orbit
 Standoff
 Translate
 Rotate
 Manual
← BACK

REC 3:47:09
5 hours left

15:17:42
modus v



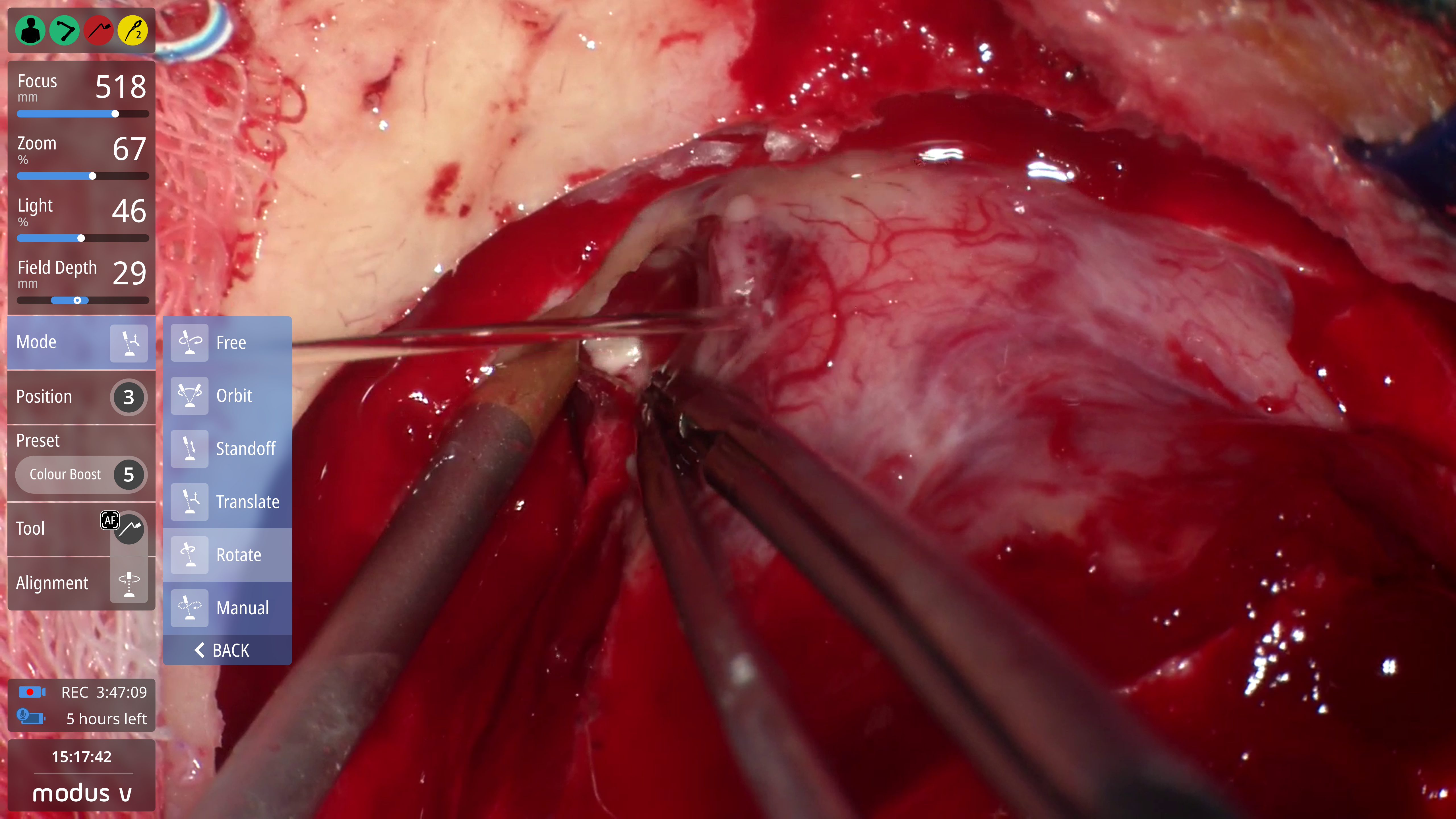
Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode Free
Position 3 Orbit
Preset Standoff
Colour Boost 5 Translate
Tool Rotate
Alignment Manual

Free
 Orbit
 Standoff
 Translate
 Rotate
 Manual
← BACK

REC 3:47:09
5 hours left

15:17:42
modus v



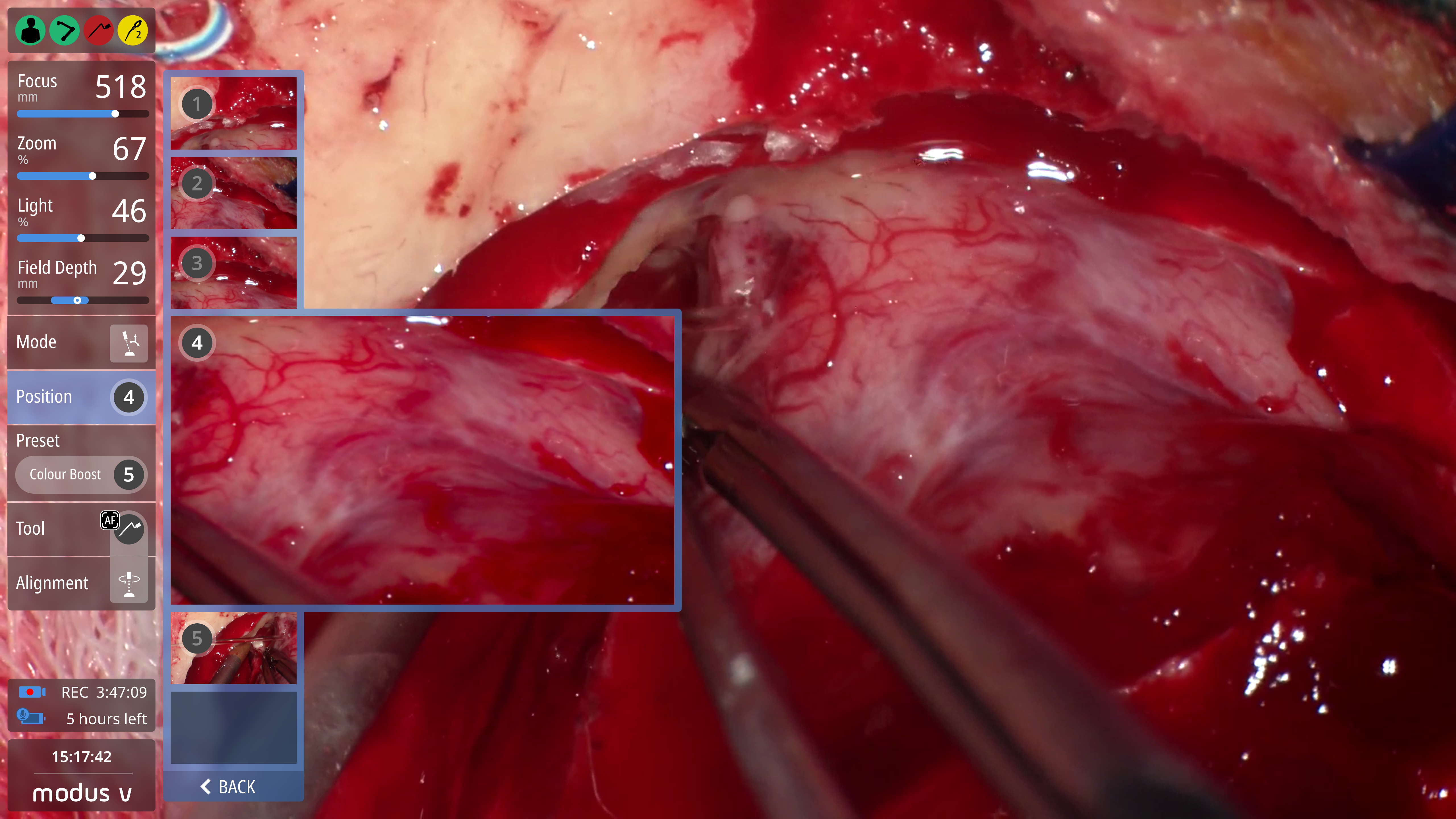
Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode 3
Preset Colour Boost 5
Tool
Alignment

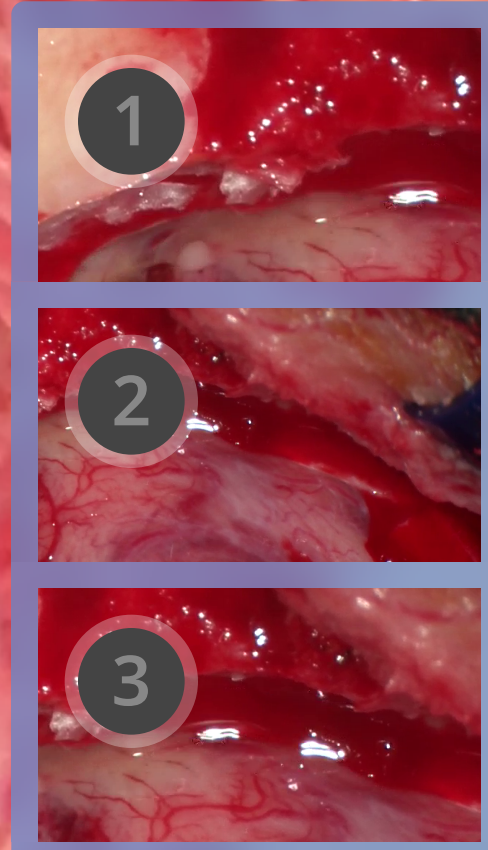
Free
 Orbit
 Standoff
 Translate
 Rotate
 Manual
← BACK

REC 3:47:09
5 hours left

15:17:42
modus v



Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29



Mode

Position 4

Preset
Colour Boost 5

Tool

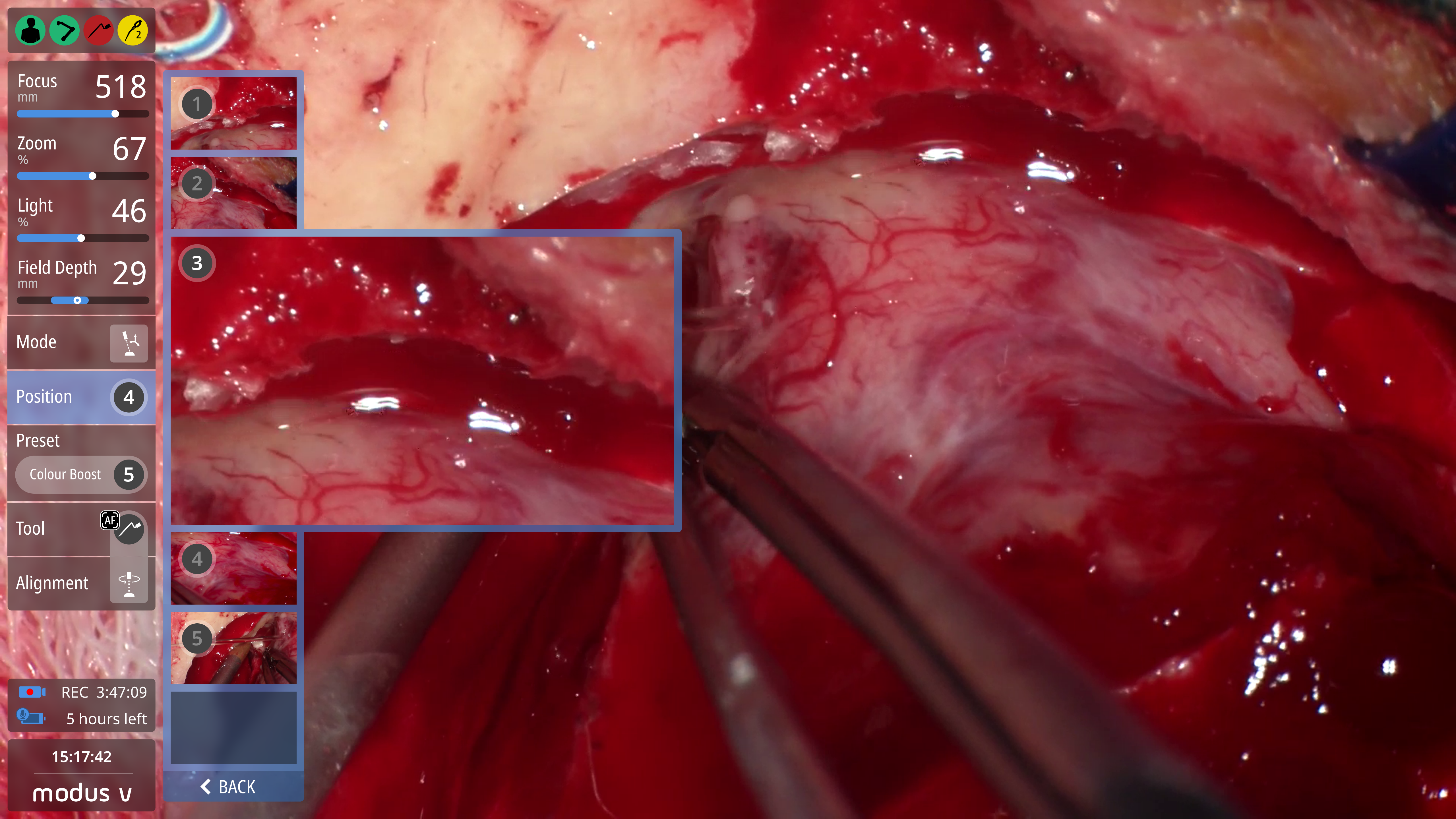
Alignment

REC 3:47:09
5 hours left

15:17:42
modus v

5

← BACK



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 4

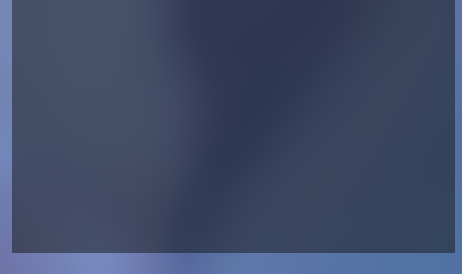
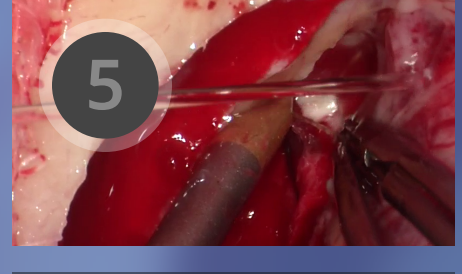
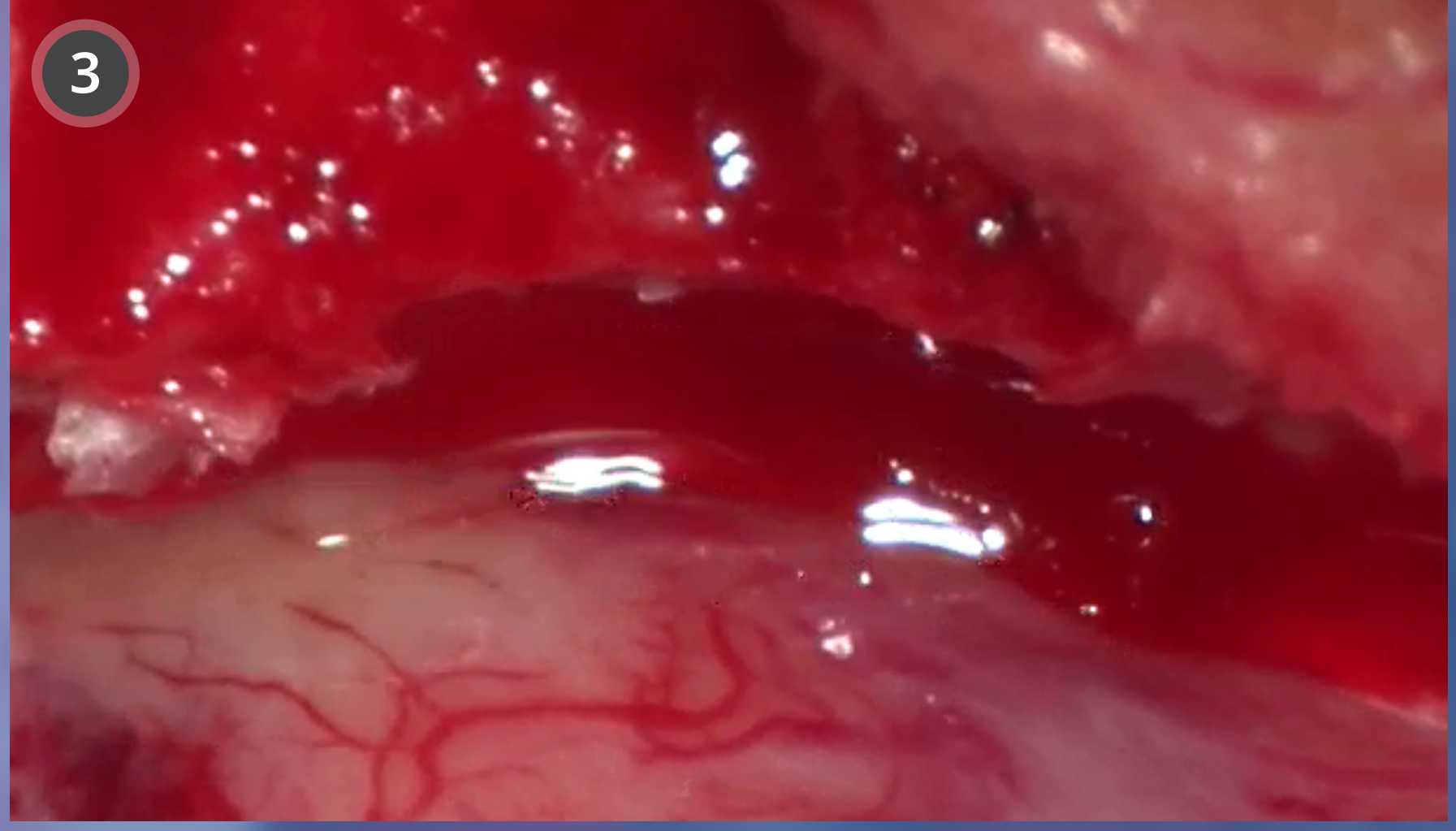
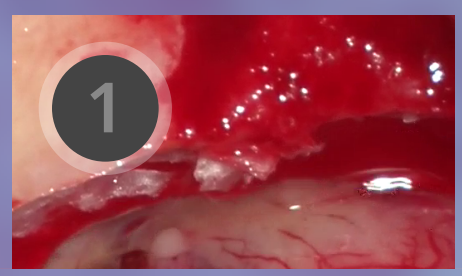
Preset Colour Boost 5

Tool AE

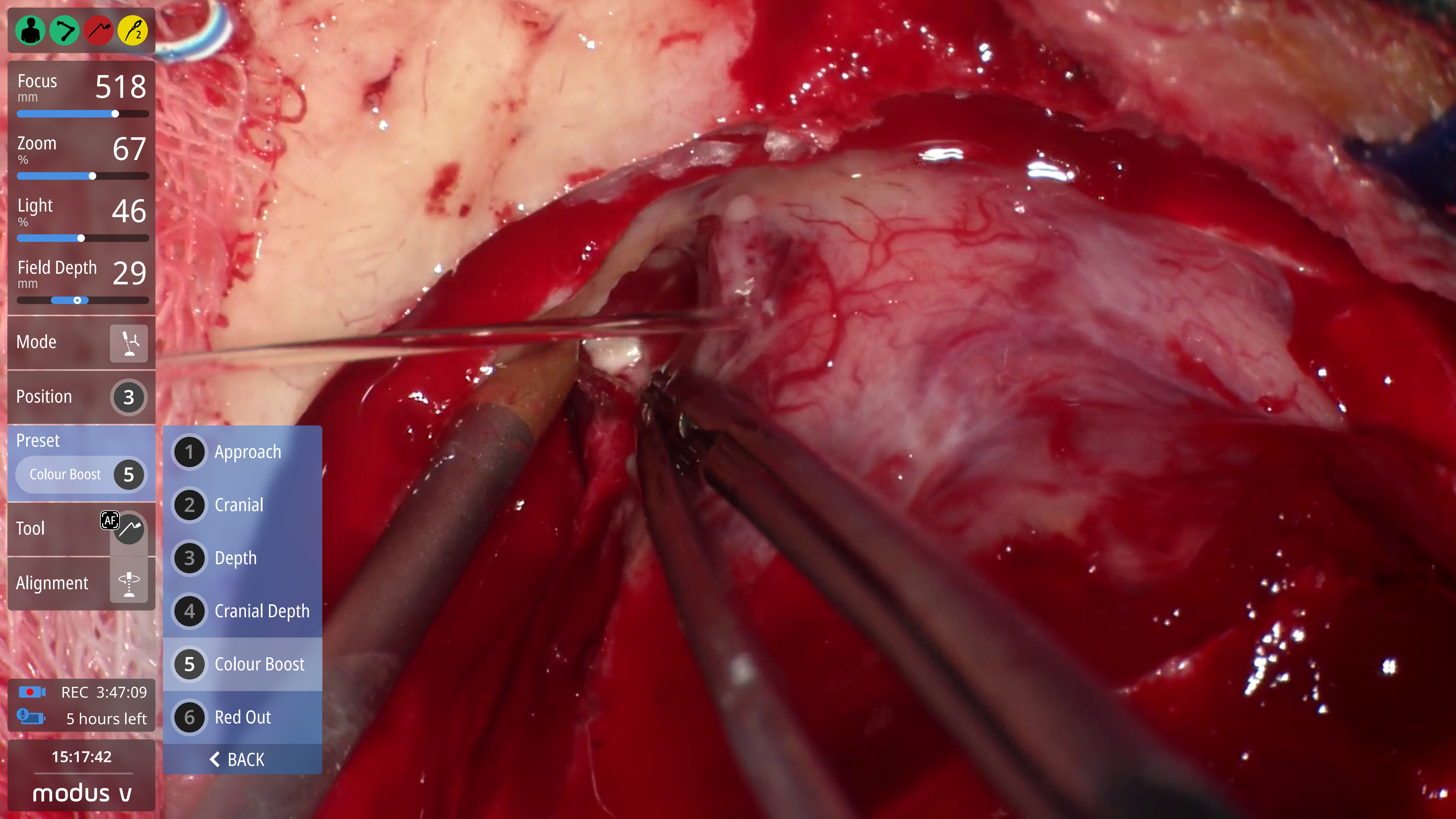
Alignment

REC 3:47:09
5 hours left

15:17:42
modus v



← BACK



Focus
mm 518

Zoom
% 67

Light
% 46

Field Depth
mm 29

Mode

Position 3

Preset

Colour Boost 5

Tool

Alignment

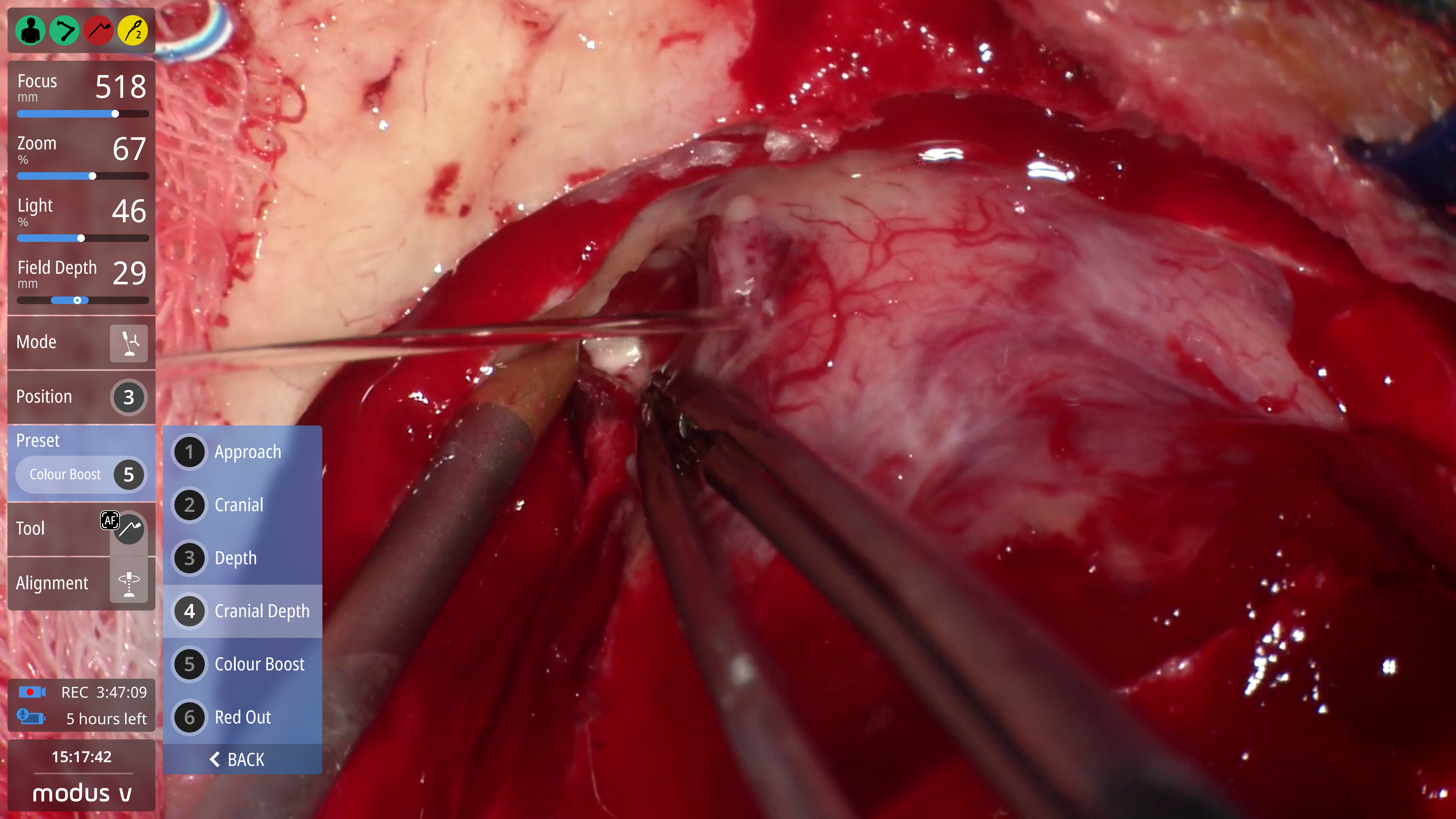
REC 3:47:09

5 hours left

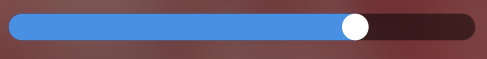
15:17:42

modus v

- 1 Approach
- 2 Cranial
- 3 Depth
- 4 Cranial Depth
- 5 Colour Boost
- 6 Red Out
- ← BACK



Focus mm 518



Zoom % 67



Light % 46



Field Depth mm 29



Mode 

Position 3

Preset

Colour Boost 5

Tool 

Alignment 

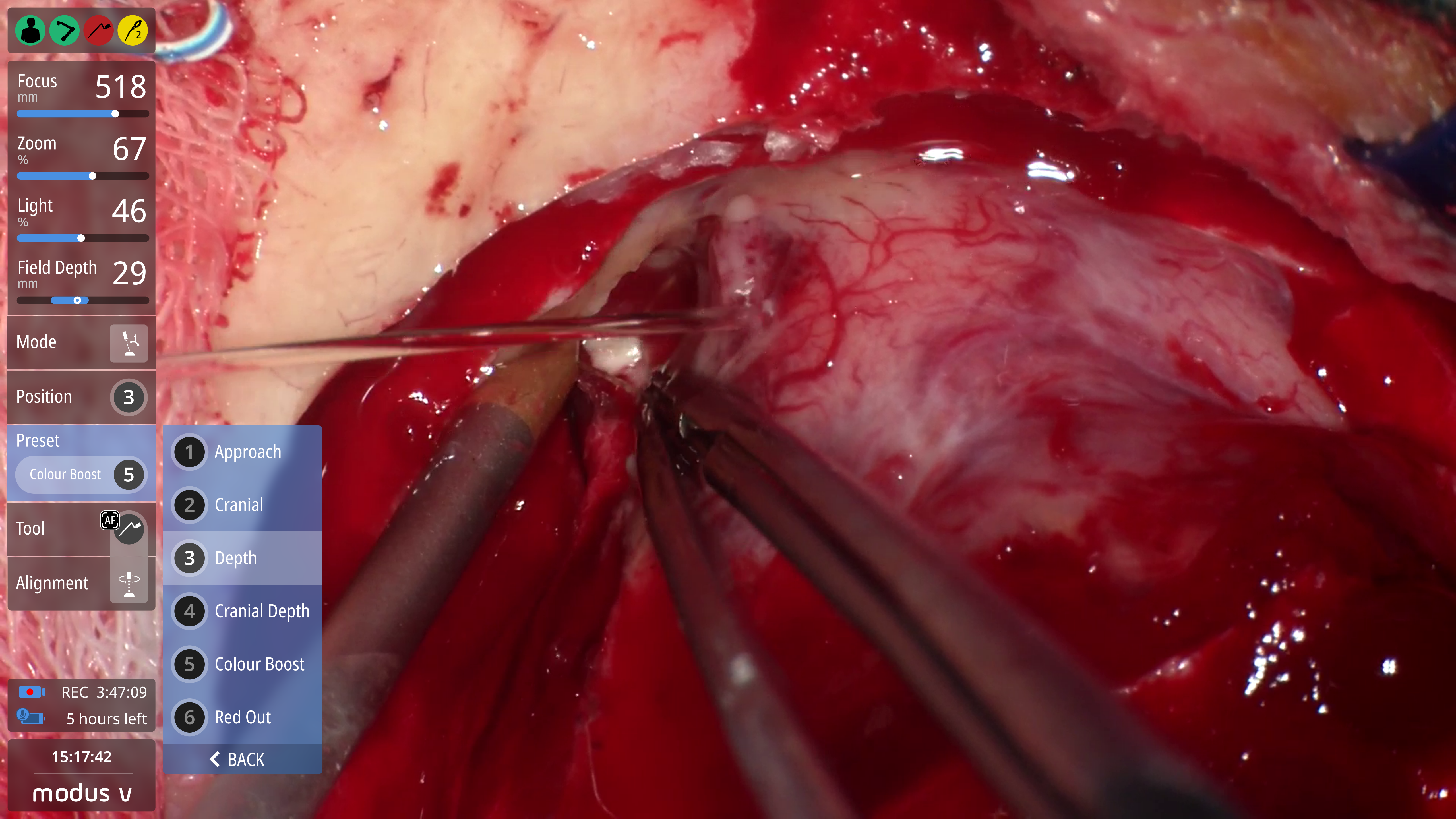
- 1 Approach
- 2 Cranial
- 3 Depth
- 4 Cranial Depth
- 5 Colour Boost
- 6 Red Out
- ← BACK

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode

Position 3

Preset
Colour Boost 5

Tool

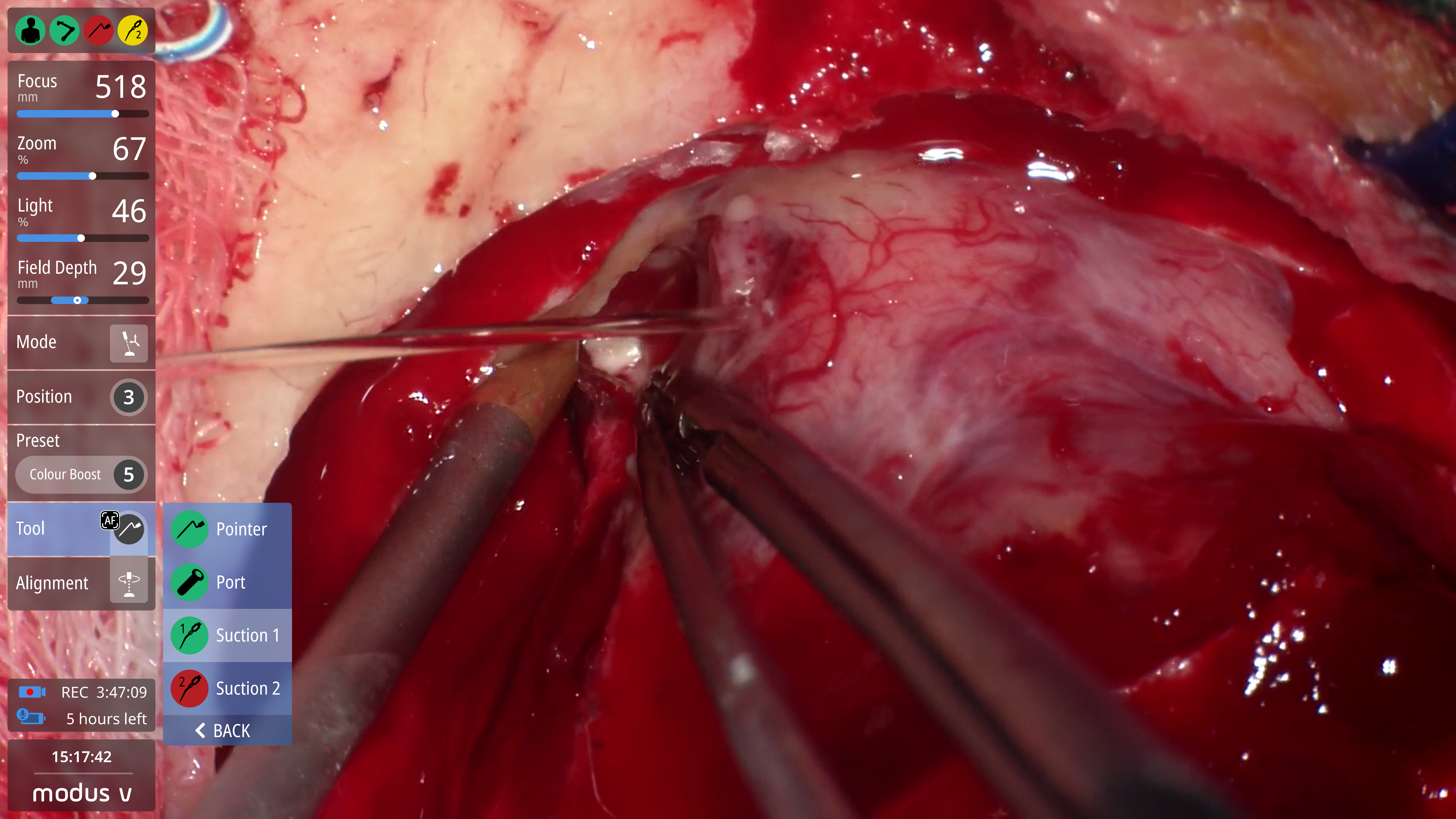
Alignment

- 1 Approach
- 2 Cranial
- 3 Depth
- 4 Cranial Depth
- 5 Colour Boost
- 6 Red Out

REC 3:47:09
5 hours left

15:17:42
modus v

← BACK



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode 

Position 3

Preset

Colour Boost 5

Tool 

Alignment 

 Pointer

 Port

 Suction 1

 Suction 2

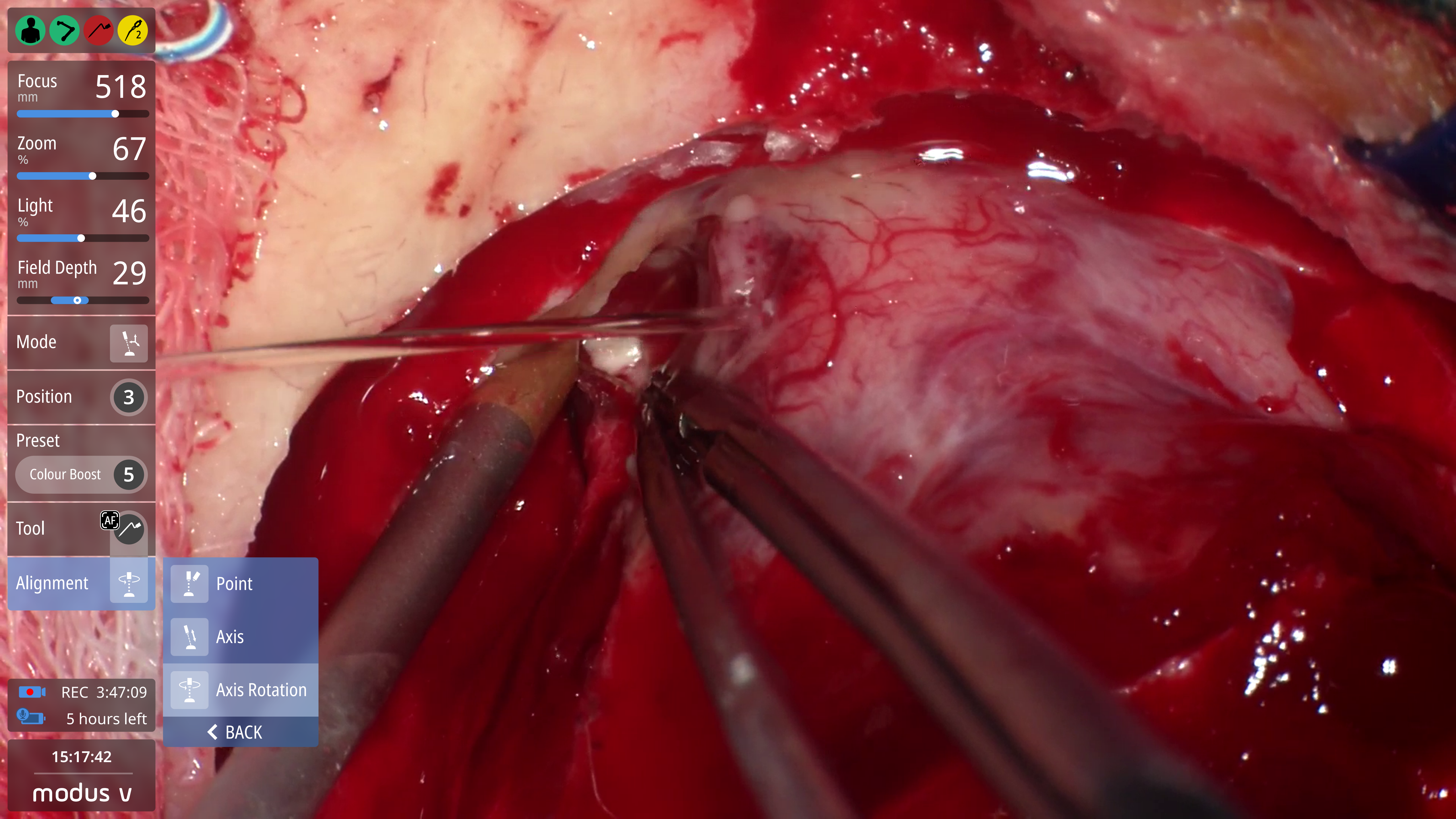
 BACK

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset Colour Boost 5

Tool

Alignment



Point



Axis



Axis Rotation

← BACK

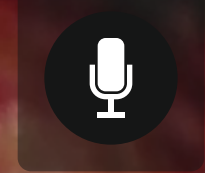
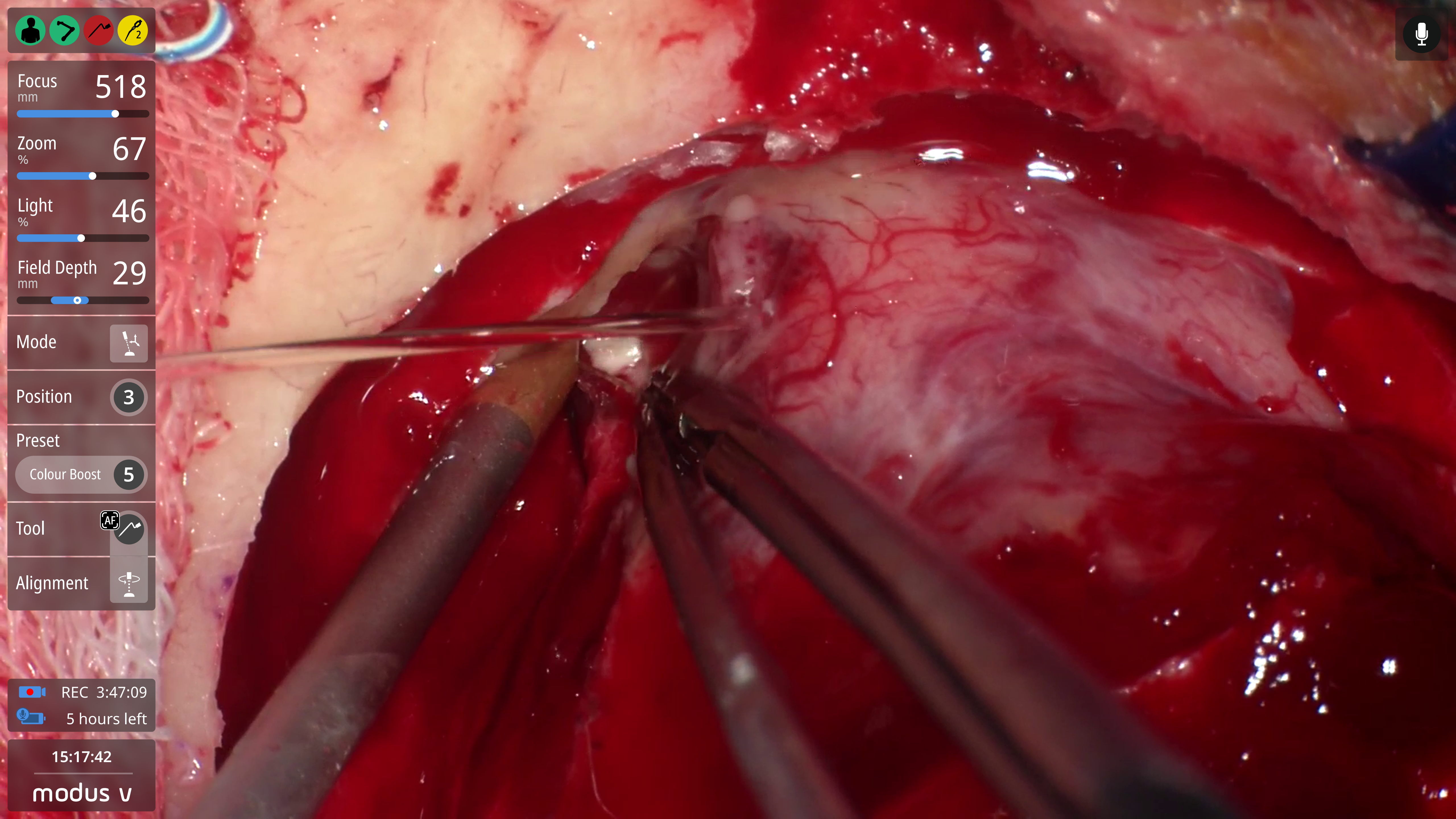
REC 3:47:09

5 hours left

15:17:42

modus v

Voice Control



Focus
mm 518

Zoom
% 67

Light
% 46

Field Depth
mm 29

Mode 

Position **3**

Preset
Colour Boost **5**

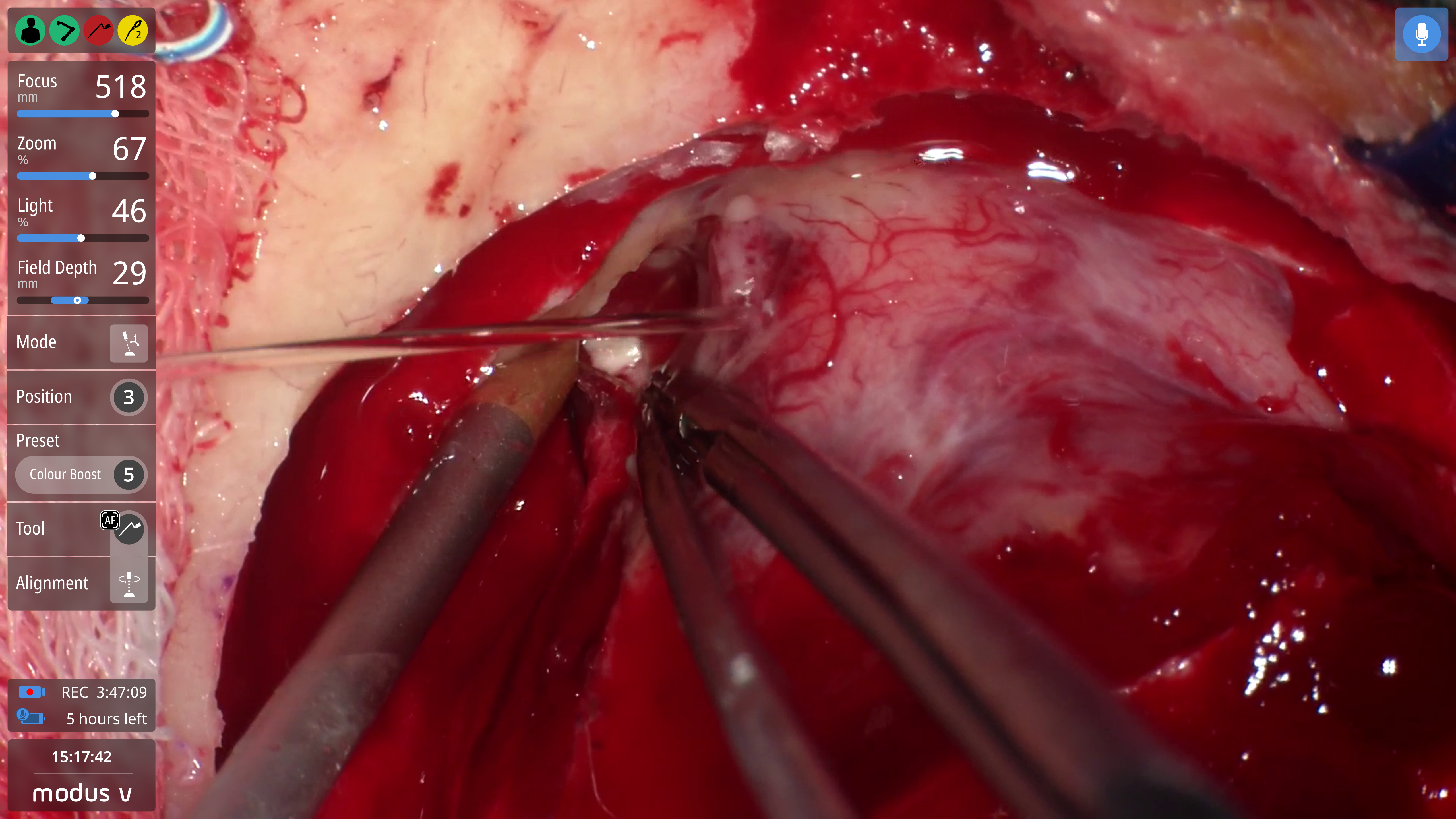
Tool 

Alignment 

REC 3:47:09

5 hours left

15:17:42
modus v



Focus
mm 518

Zoom
% 67

Light
% 46

Field Depth
mm 29

Mode

Position 3

Preset
Colour Boost 5

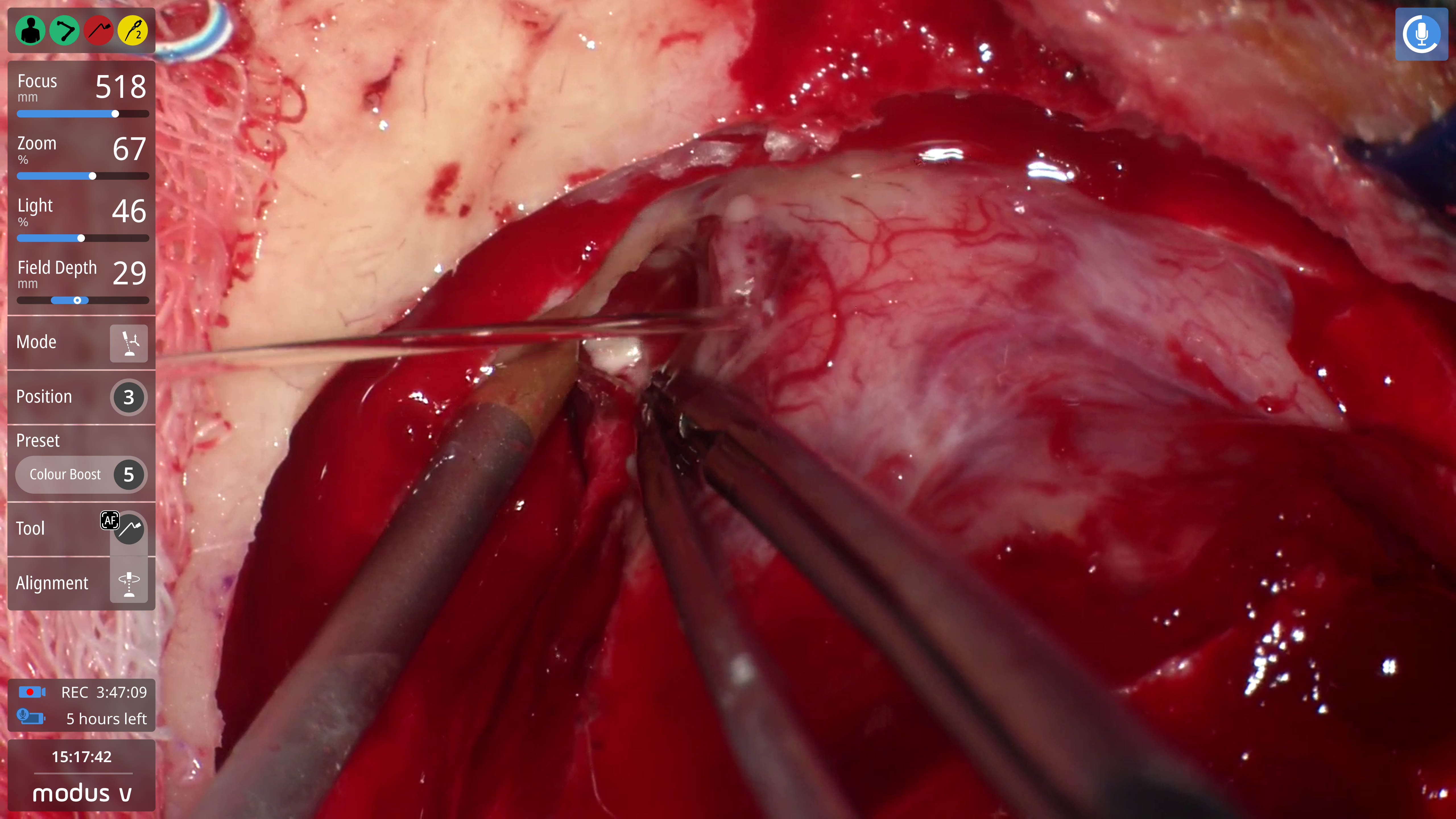
Tool

Alignment

REC 3:47:09

5 hours left

15:17:42
modus v



Focus 518
mm

Zoom 67
%

Light 46
%

Field Depth 29
mm

Mode

Position 3

Preset

Colour Boost 5

Tool

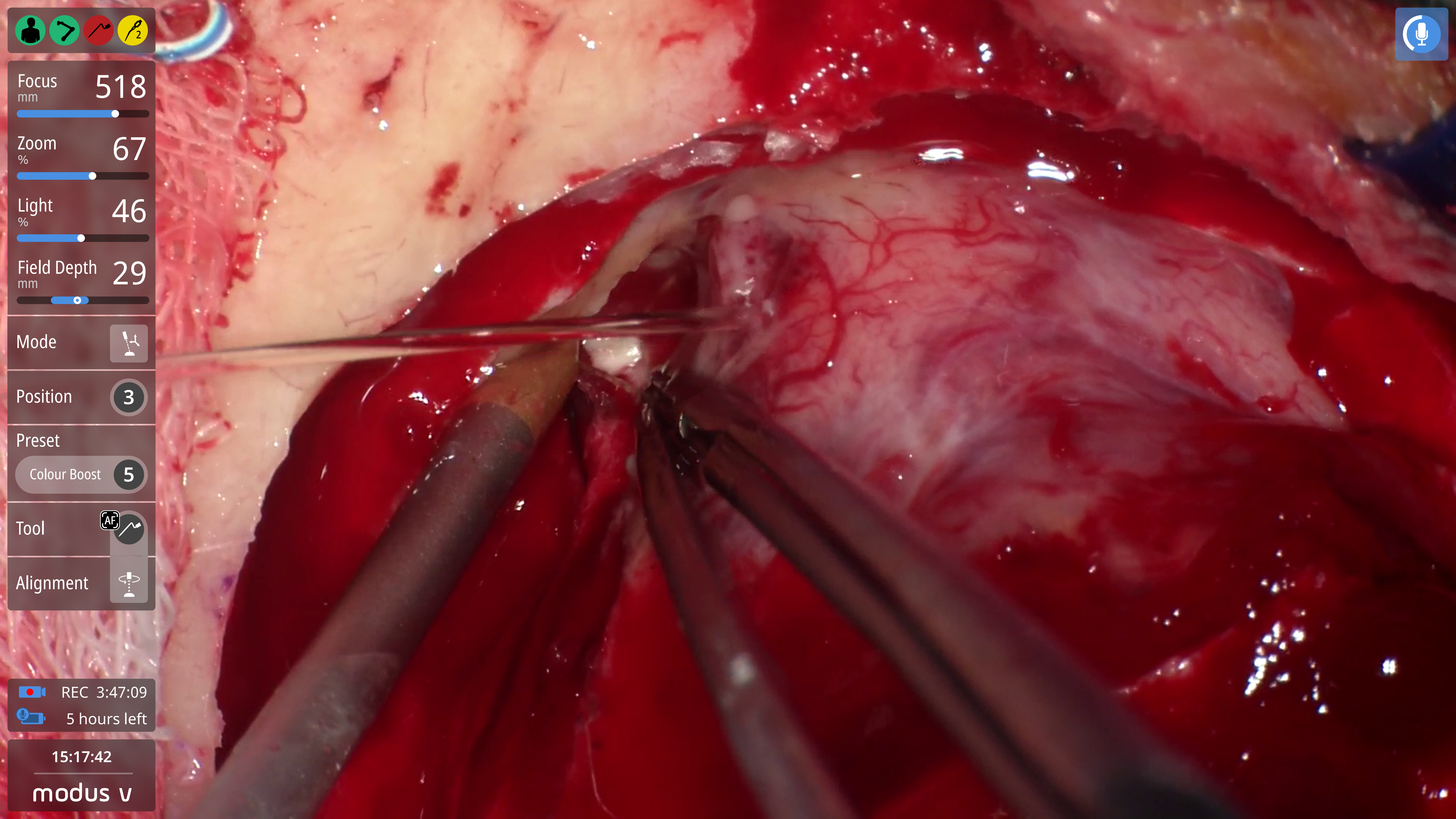
Alignment

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset Colour Boost 5

Tool

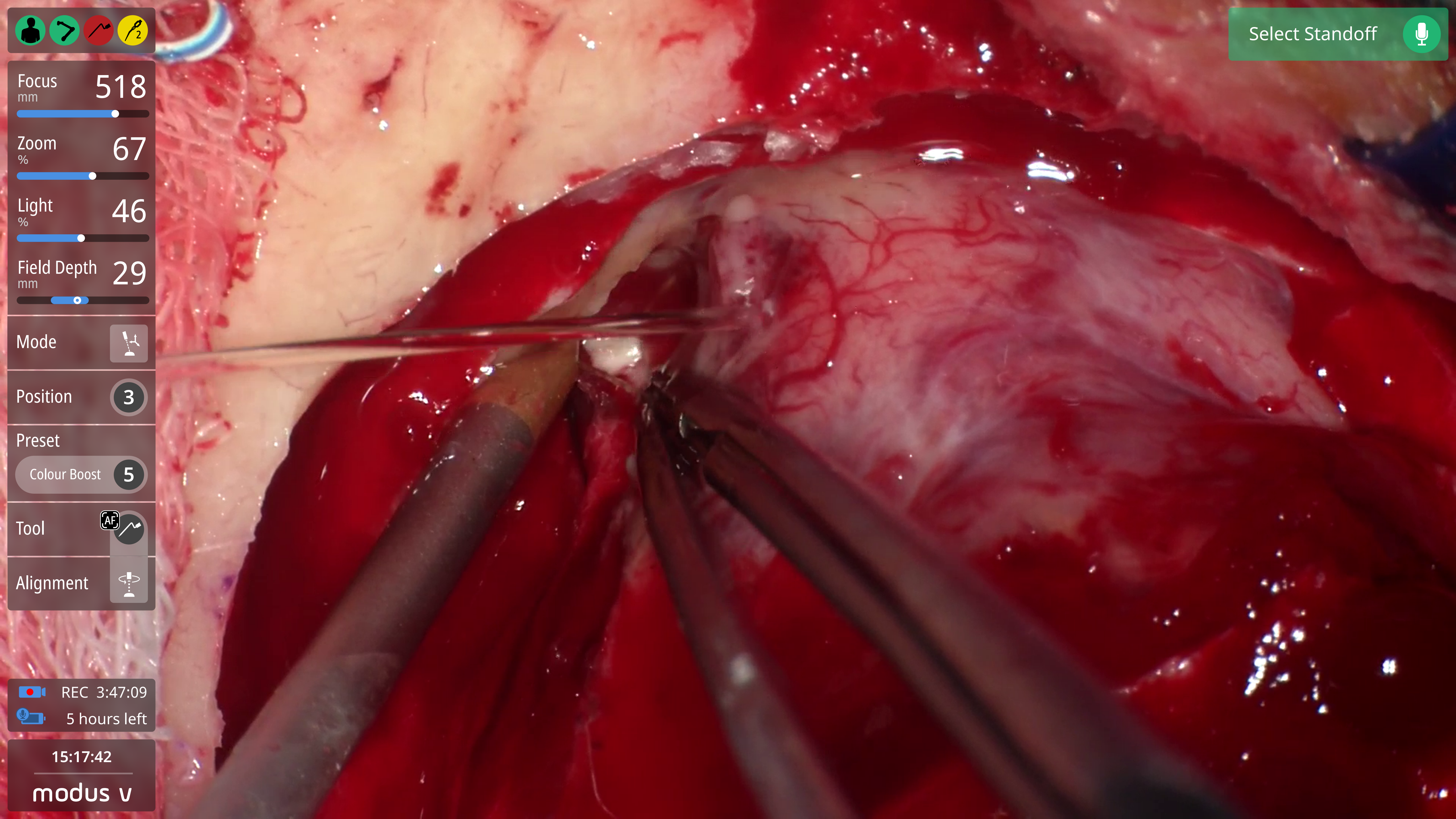
Alignment


REC 3:47:09

5 hours left

15:17:42

modus v



Select Standoff 



Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode 

Position 3

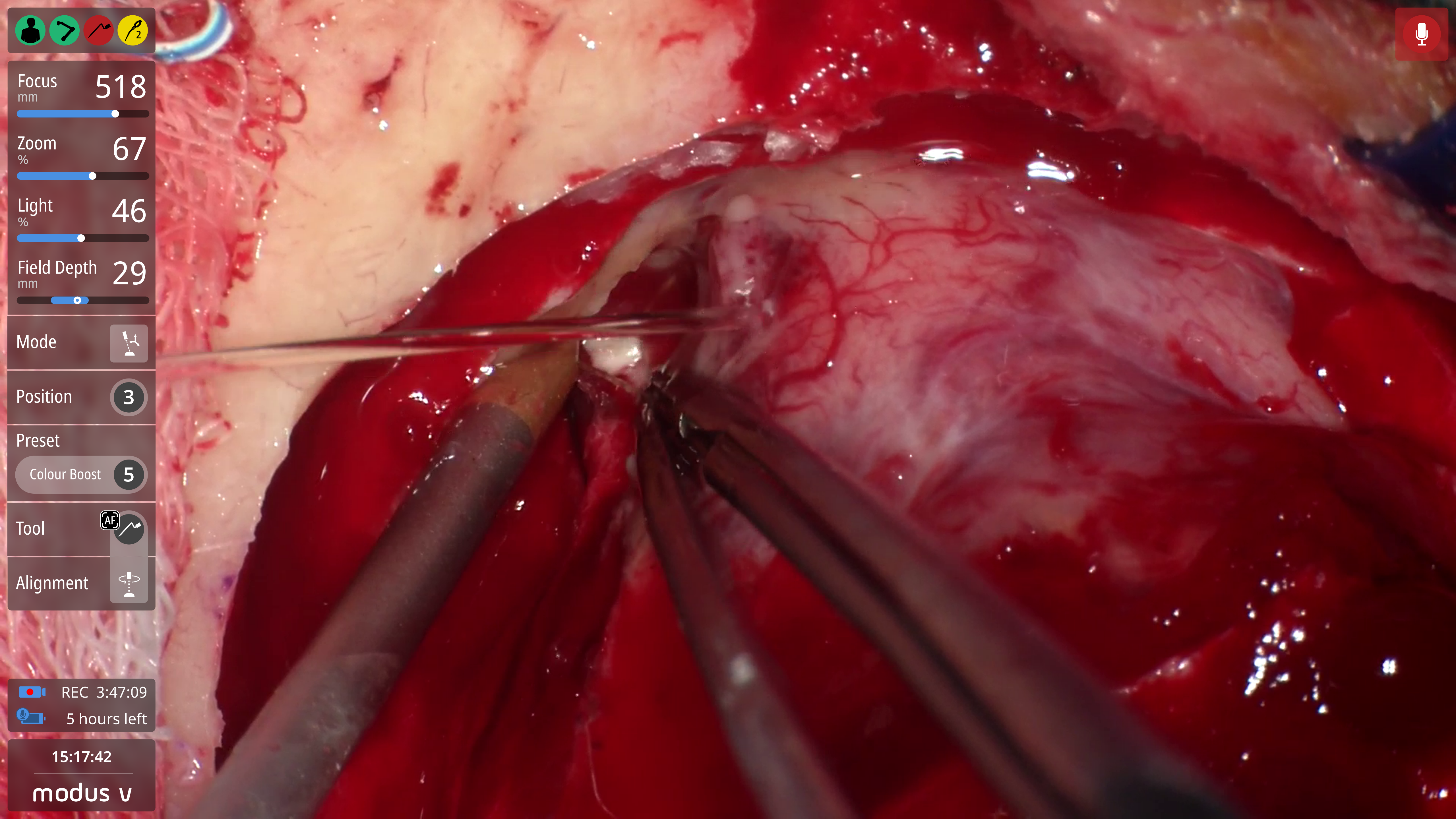
Preset
Colour Boost 5

Tool 

Alignment 

REC 3:47:09
5 hours left

15:17:42
modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset
Colour Boost 5

Tool

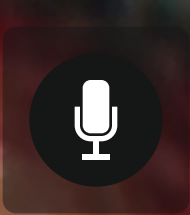
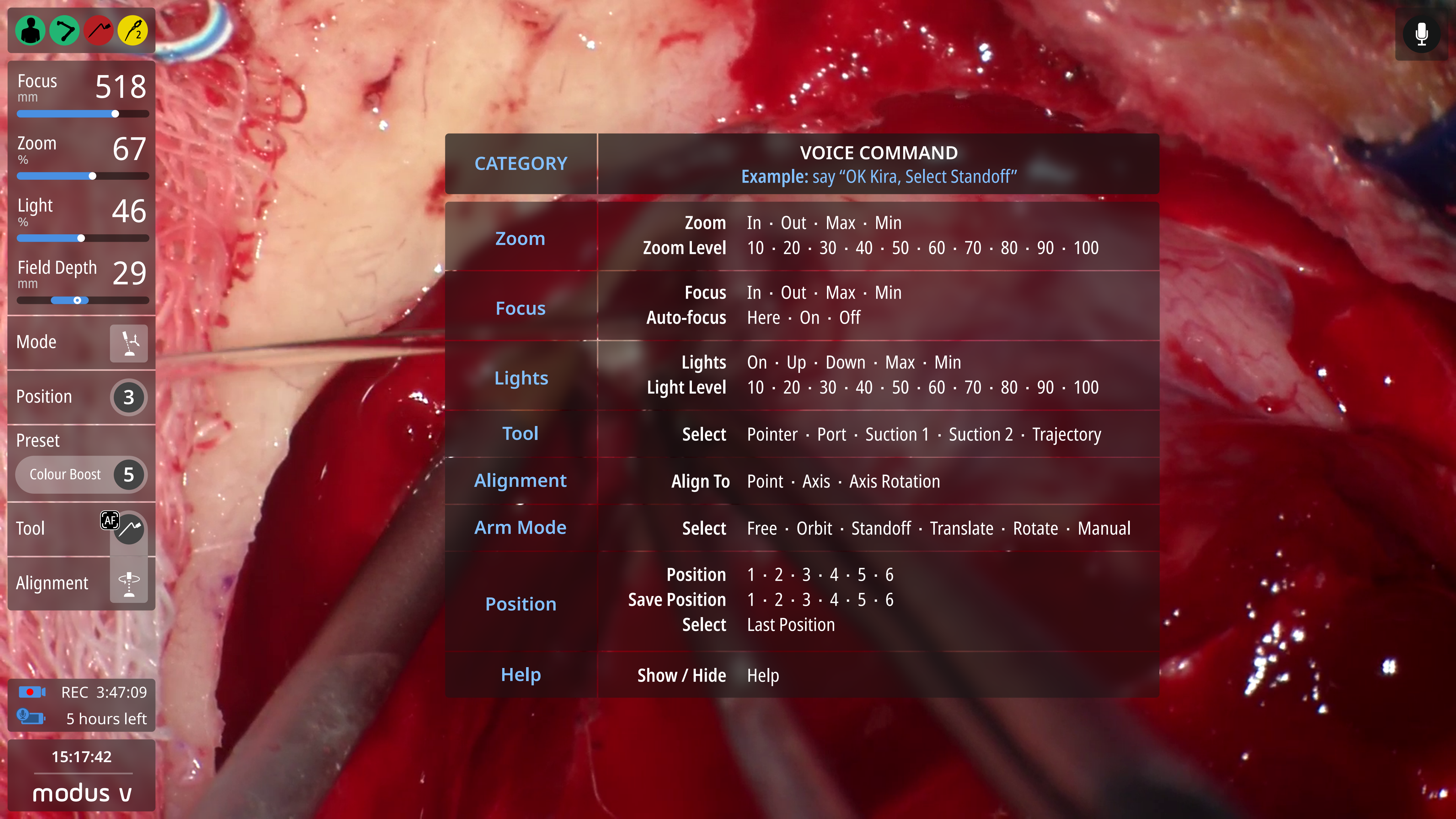
Alignment

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm **518**

Zoom % **67**

Light % **46**

Field Depth mm **29**

Mode

Position **3**

Preset

Colour Boost **5**

Tool

Alignment

REC 3:47:09

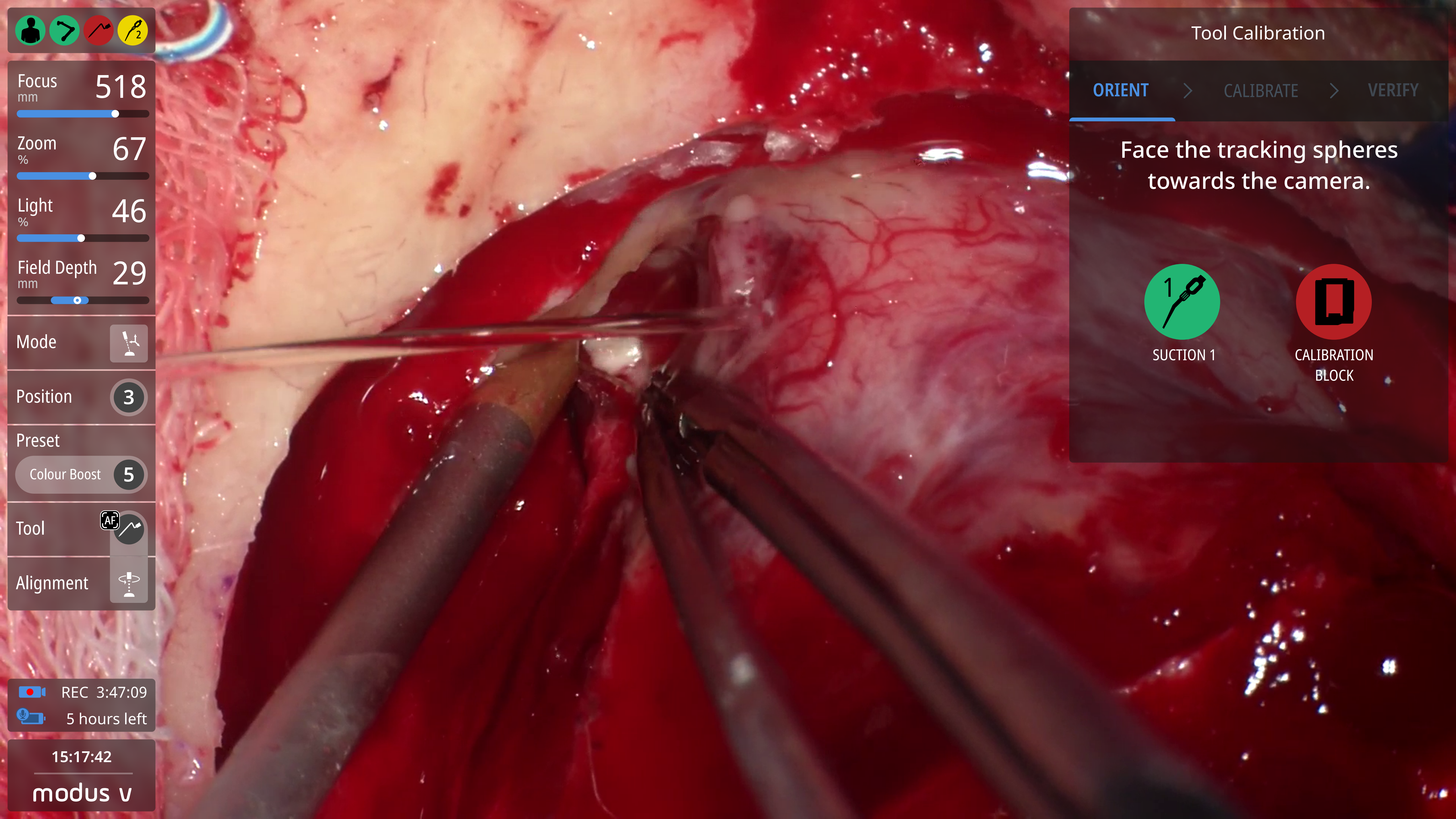
5 hours left

15:17:42

modus v

CATEGORY	VOICE COMMAND	
	Example: say "OK Kira, Select Standoff"	
Zoom	Zoom Zoom Level	In · Out · Max · Min 10 · 20 · 30 · 40 · 50 · 60 · 70 · 80 · 90 · 100
Focus	Focus Auto-focus	In · Out · Max · Min Here · On · Off
Lights	Lights Light Level	On · Up · Down · Max · Min 10 · 20 · 30 · 40 · 50 · 60 · 70 · 80 · 90 · 100
Tool	Select	Pointer · Port · Suction 1 · Suction 2 · Trajectory
Alignment	Align To	Point · Axis · Axis Rotation
Arm Mode	Select	Free · Orbit · Standoff · Translate · Rotate · Manual
Position	Position Save Position Select	1 · 2 · 3 · 4 · 5 · 6 1 · 2 · 3 · 4 · 5 · 6 Last Position
Help	Show / Hide	Help

Tool Calibration



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode 

Position 3

Preset

Colour Boost 5

Tool 

Alignment 

REC 3:47:09

5 hours left

15:17:42

modus v

Tool Calibration

ORIENT > CALIBRATE > VERIFY

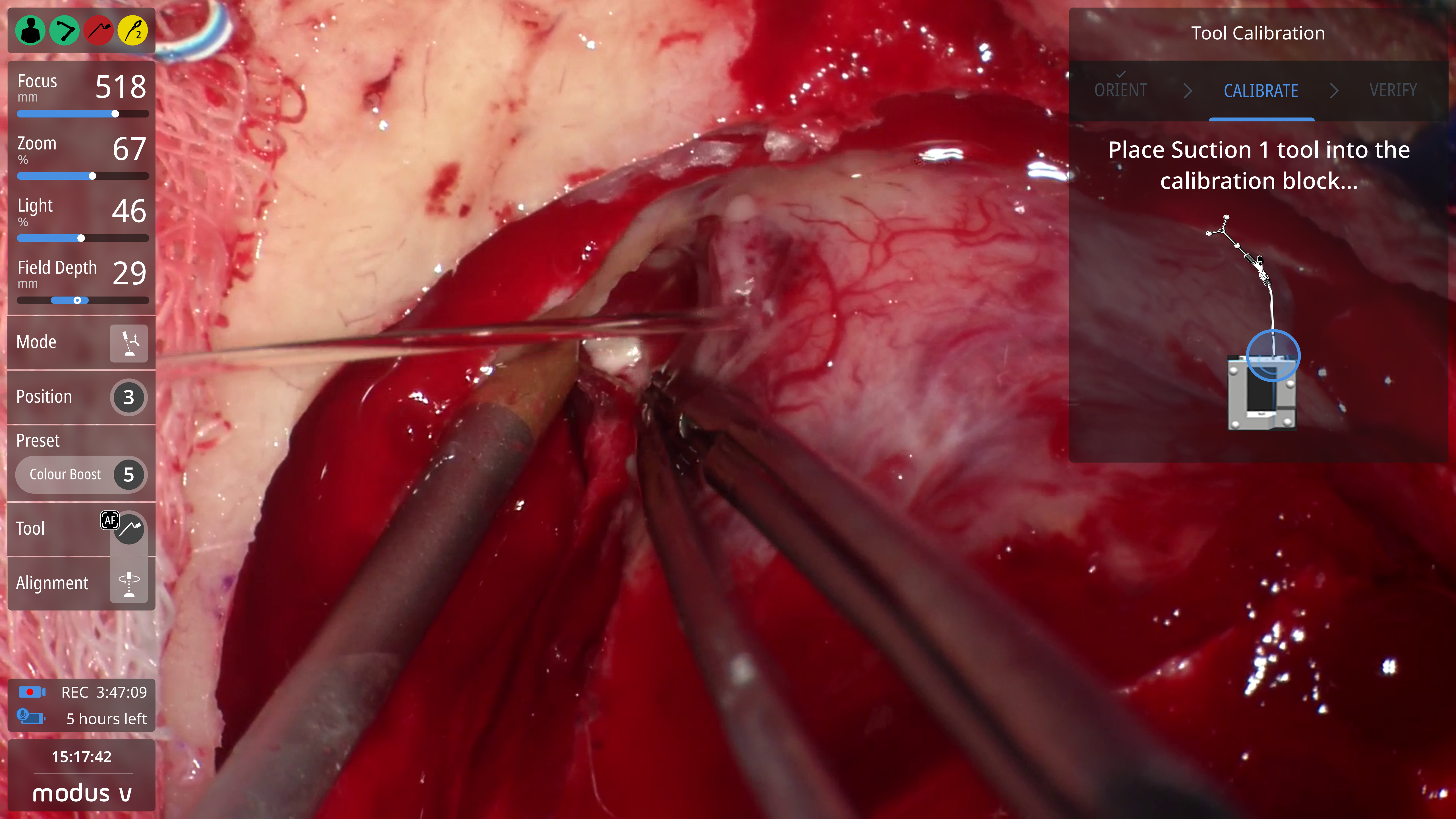
Face the tracking spheres towards the camera.



SUCTION 1



CALIBRATION BLOCK



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset

Colour Boost 5

Tool

Alignment

REC 3:47:09

5 hours left

15:17:42

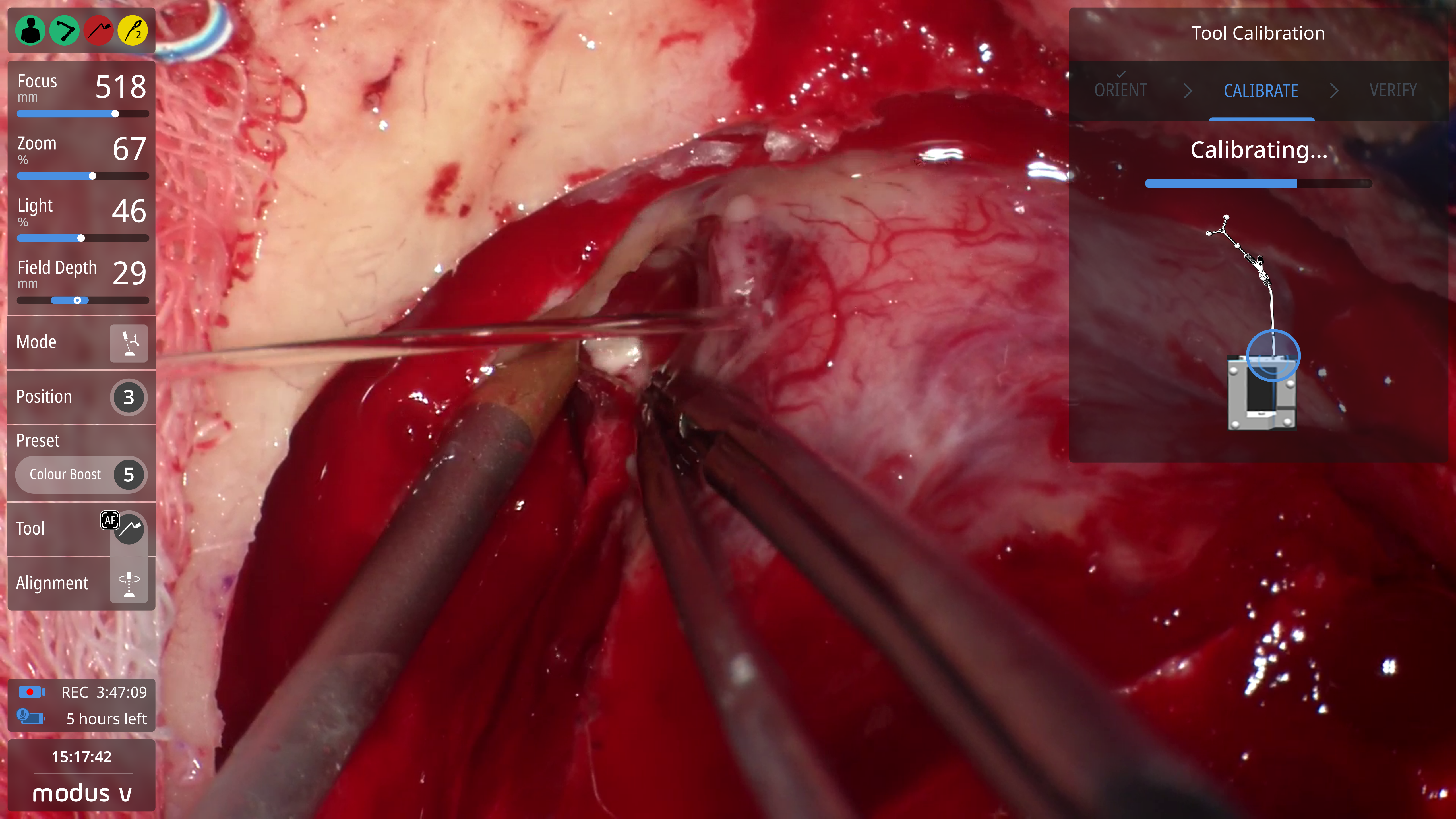
modus v

Tool Calibration

ORIENT > CALIBRATE > VERIFY

Place Suction 1 tool into the calibration block...

The diagram shows a suction tool with a curved tip and a handle. It is positioned above a rectangular calibration block. A blue circle highlights the point where the tool's tip is about to make contact with the block.



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset

Colour Boost 5

Tool

Alignment

REC 3:47:09

5 hours left

15:17:42

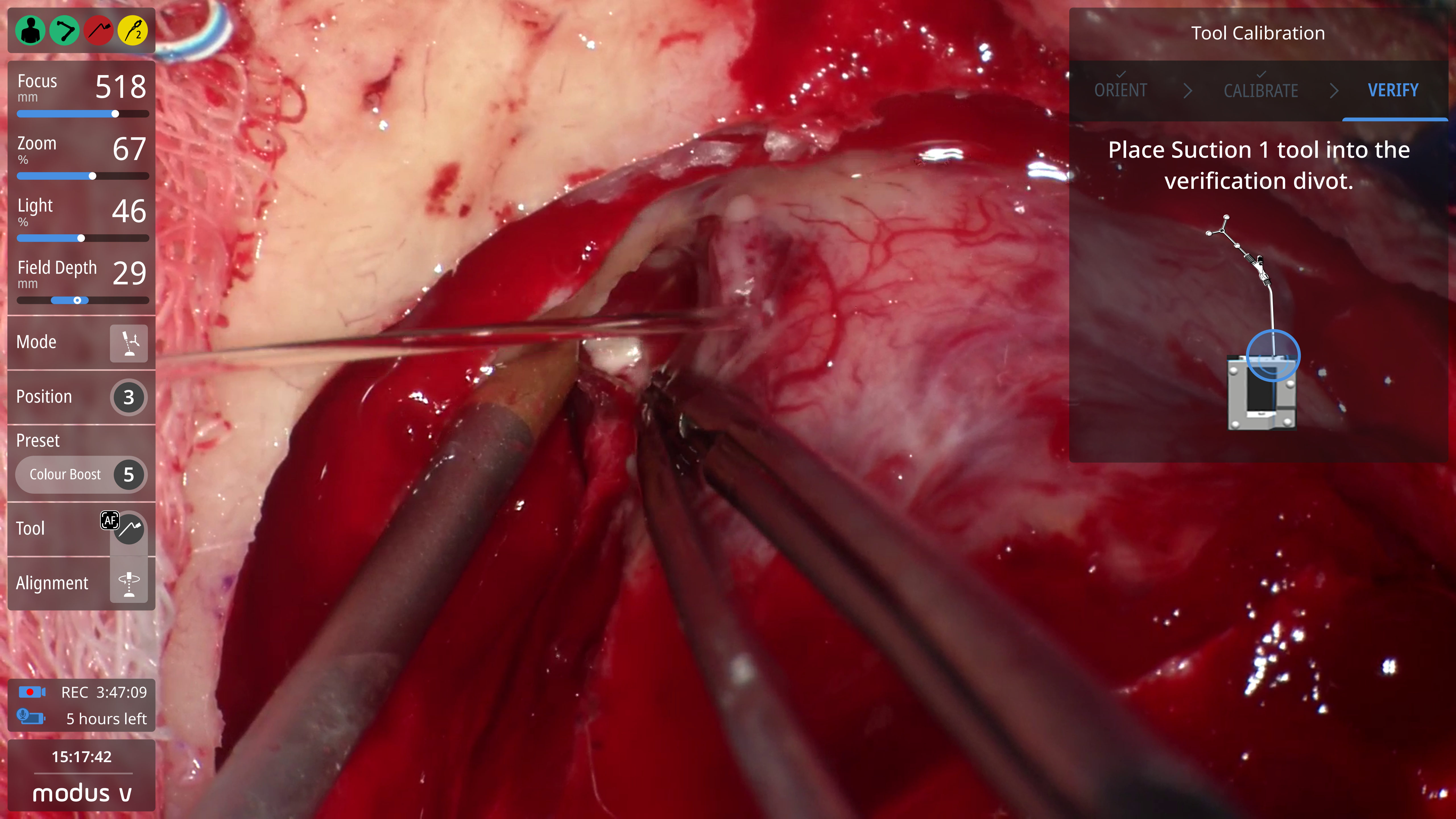
modus v

Tool Calibration

ORIENT > CALIBRATE > VERIFY

Calibrating...

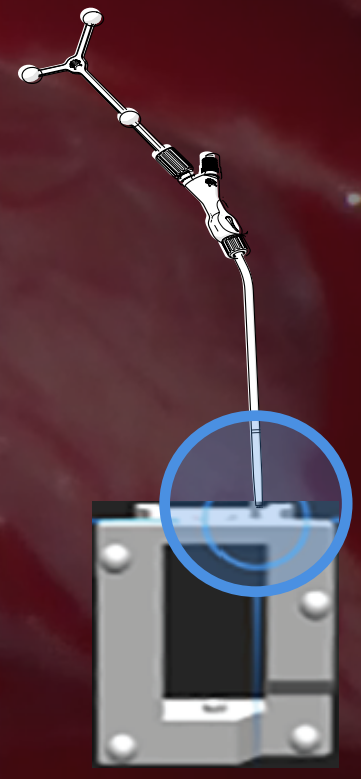
A calibration progress bar is shown below the text. Below the bar is a diagram of a surgical tool with a blue circle highlighting a specific part of the tool's handle.



Tool Calibration

ORIENT > CALIBRATE > VERIFY

Place Suction 1 tool into the verification divot.



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset

Colour Boost 5

Tool

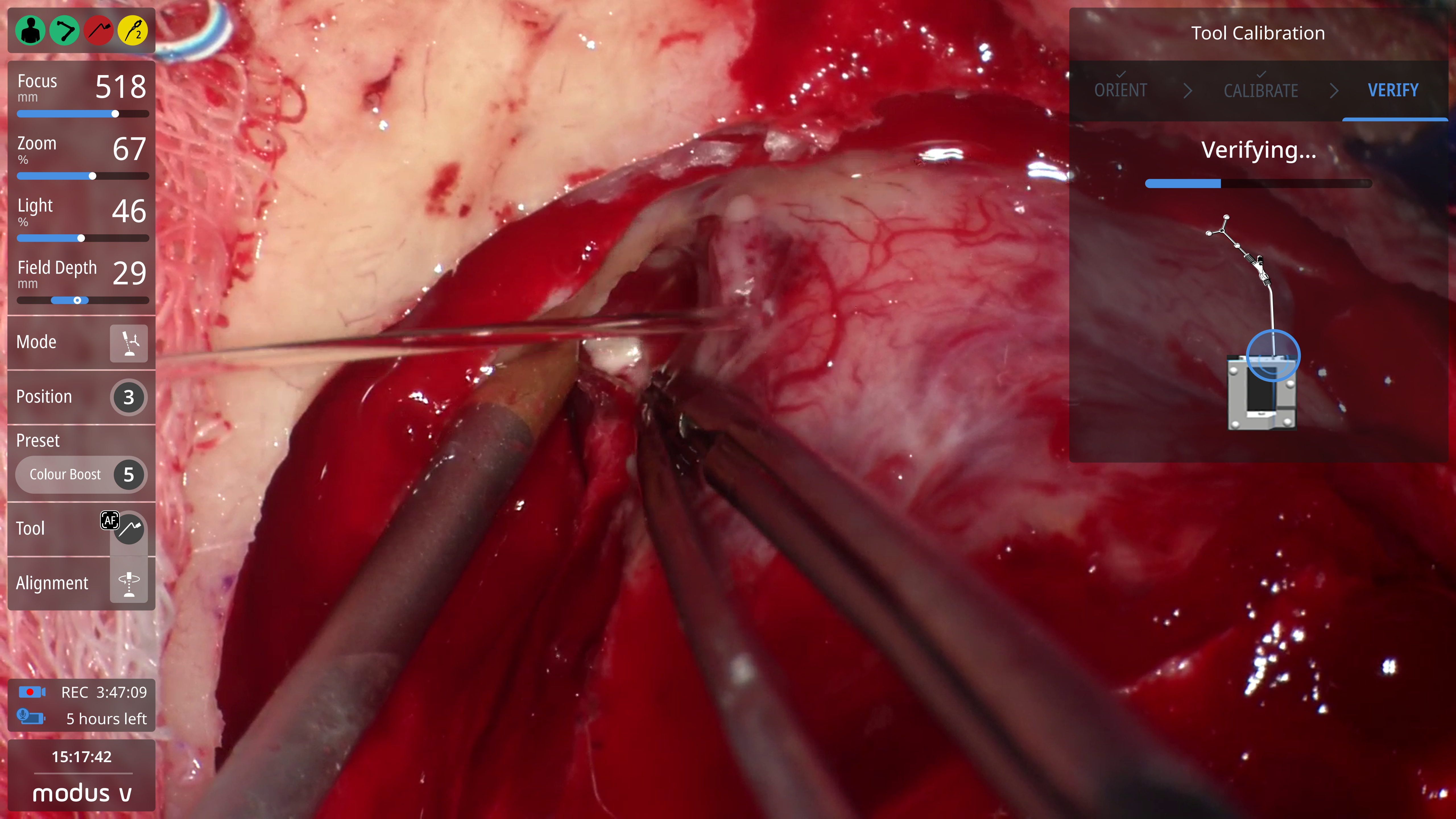
Alignment

REC 3:47:09

5 hours left

15:17:42

modus v



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode

Position 3

Preset Colour Boost 5

Tool

Alignment

REC 3:47:09

5 hours left

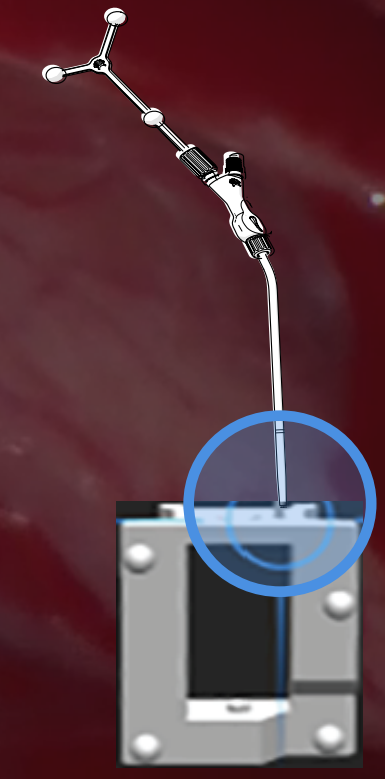
15:17:42

modus v

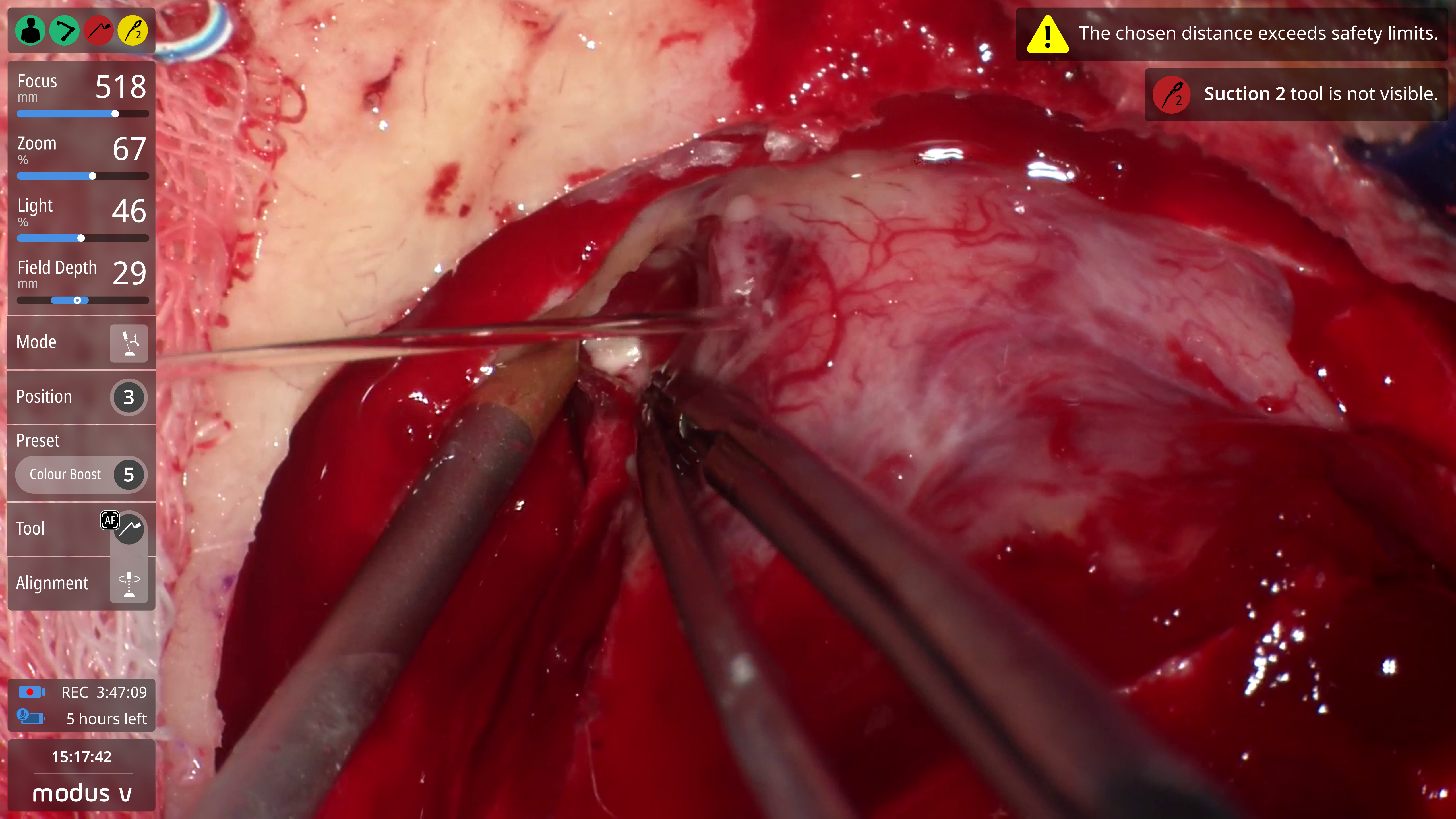
Tool Calibration


ORIENT > CALIBRATE > VERIFY

Verifying...



Notifications



 The chosen distance exceeds safety limits.

 Suction 2 tool is not visible.

Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode 

Position 3

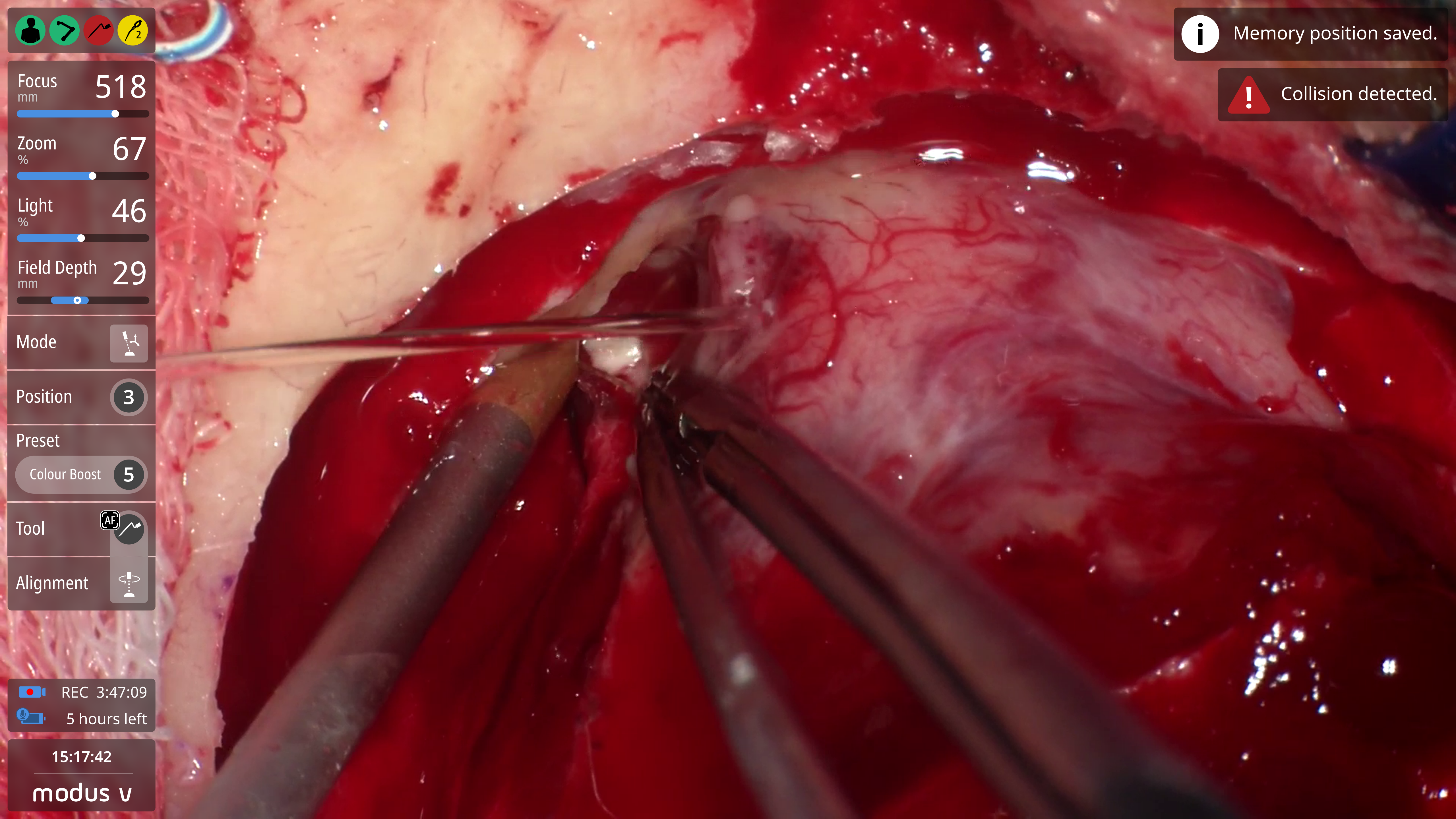
Preset
Colour Boost 5

Tool 


Alignment 

REC 3:47:09
5 hours left

15:17:42
modus v



 Memory position saved.

 Collision detected.



Focus mm 518

Zoom % 67

Light % 46

Field Depth mm 29

Mode 


Position 3

Preset Colour Boost 5

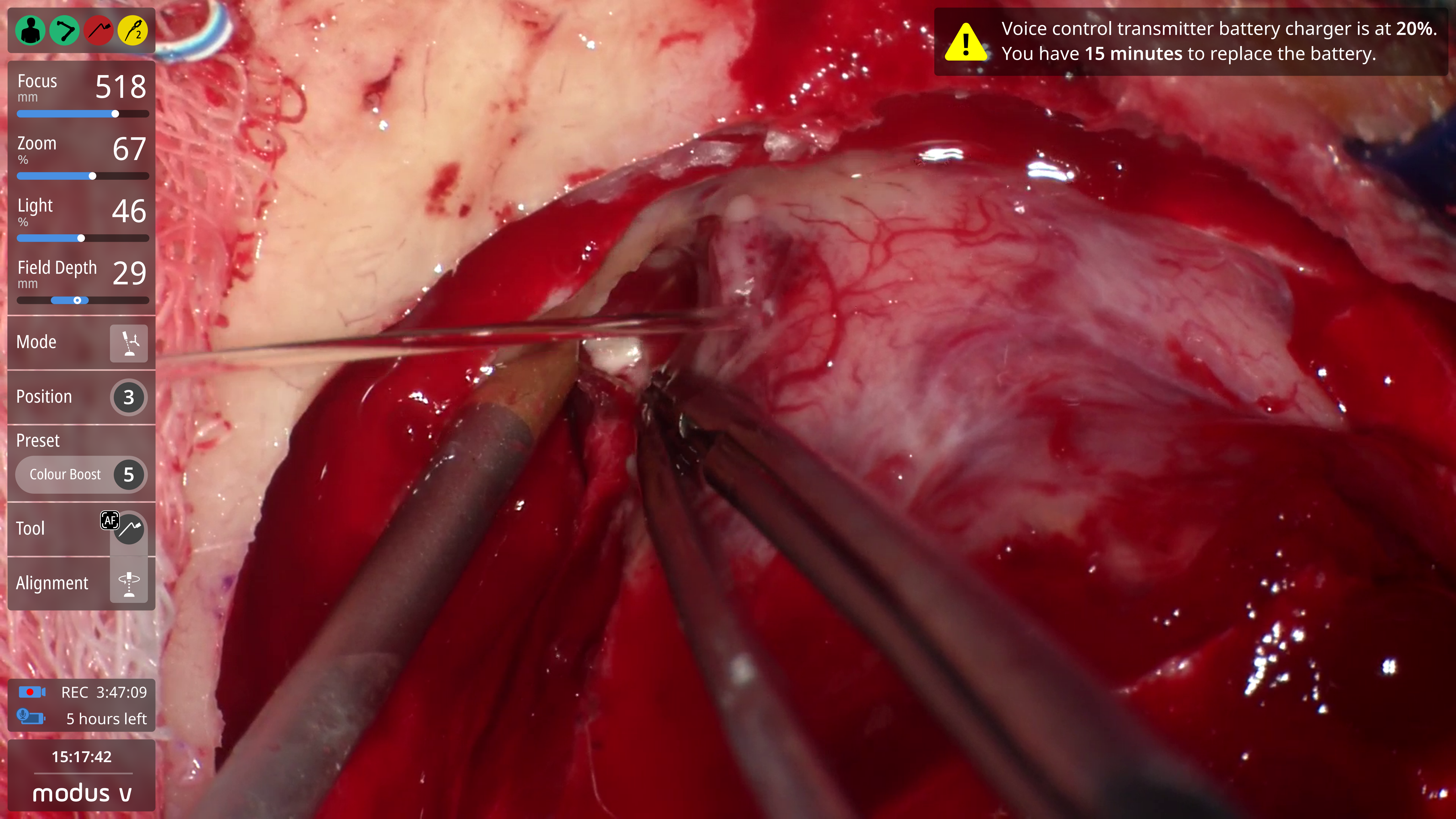
Tool 


Alignment 

 REC 3:47:09

 5 hours left

15:17:42
modus v



 Voice control transmitter battery charger is at 20%.
You have 15 minutes to replace the battery.





Focus mm 518
Zoom % 67
Light % 46
Field Depth mm 29

Mode 

Position 3

Preset
Colour Boost 5

Tool 

Alignment 

REC 3:47:09
5 hours left

15:17:42
modus v