

# Robotic Colectomy: Port Placement, Instrument Selection and Anastomosis Technique

*Swedish Colon and Rectal Clinic  
Swedish Medical Center  
Seattle, WA  
Providence St. Joseph Health  
2019*



**@amirbastawrous #RoboticCRS**

# Tips and Tricks

Select Initial Port  
10-20 cm from  
target

6-10cm Spacing  
(Less is More)  
After Insufflation

Straight Line

“Face” your work  
space

Target From  
Center of FLEX  
Joint

Target to  
Optimize Arm  
Arrangement and  
Boom Height

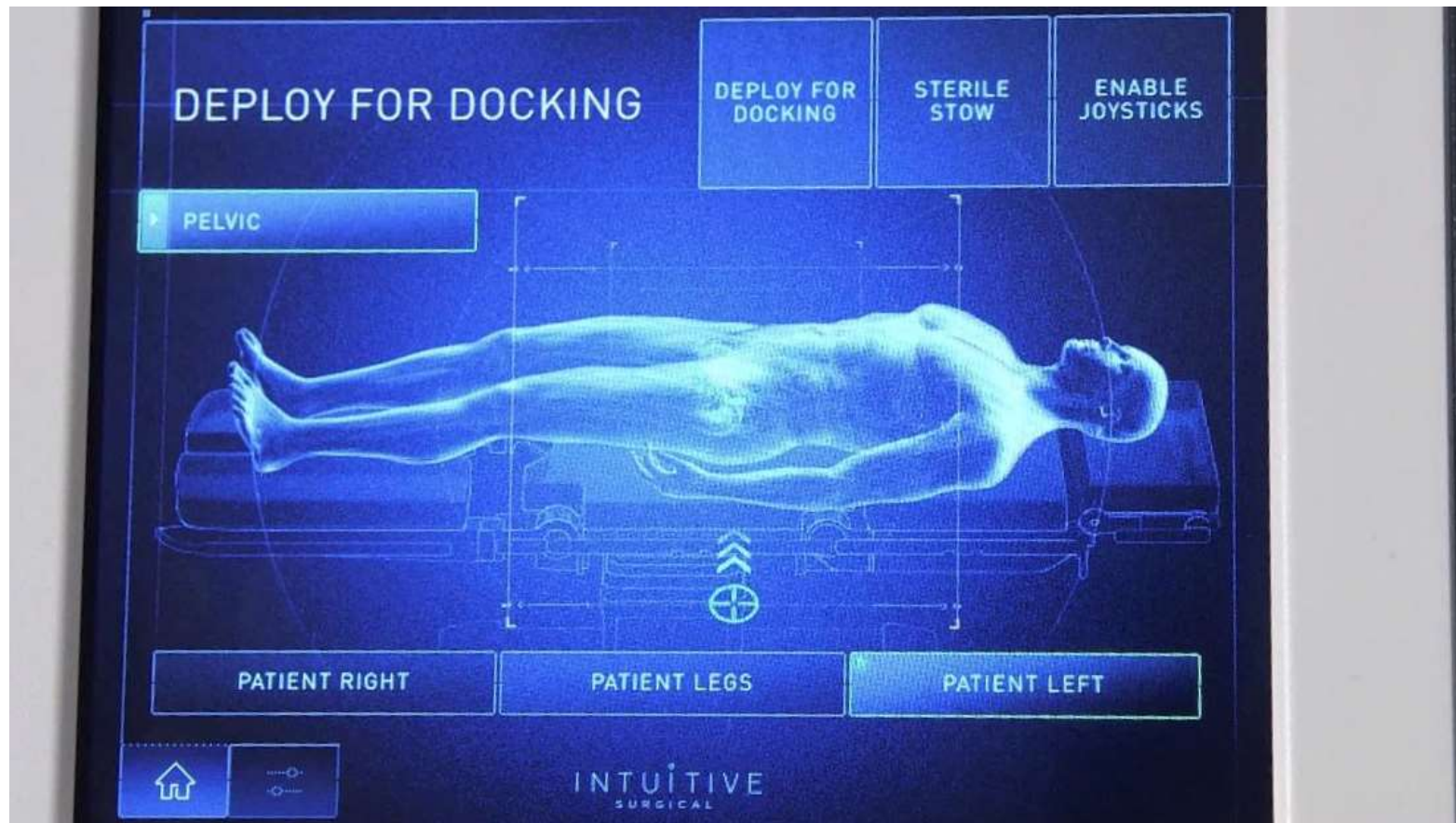
# Patient Cart Display



# Select Anatomy



# Select Side of patient





# Xi Arm Arrangement is different from SI



# Xi Port Placement Philosophy and Targeting

Think about  
your Work  
Space

Find the center  
of your Work  
Space

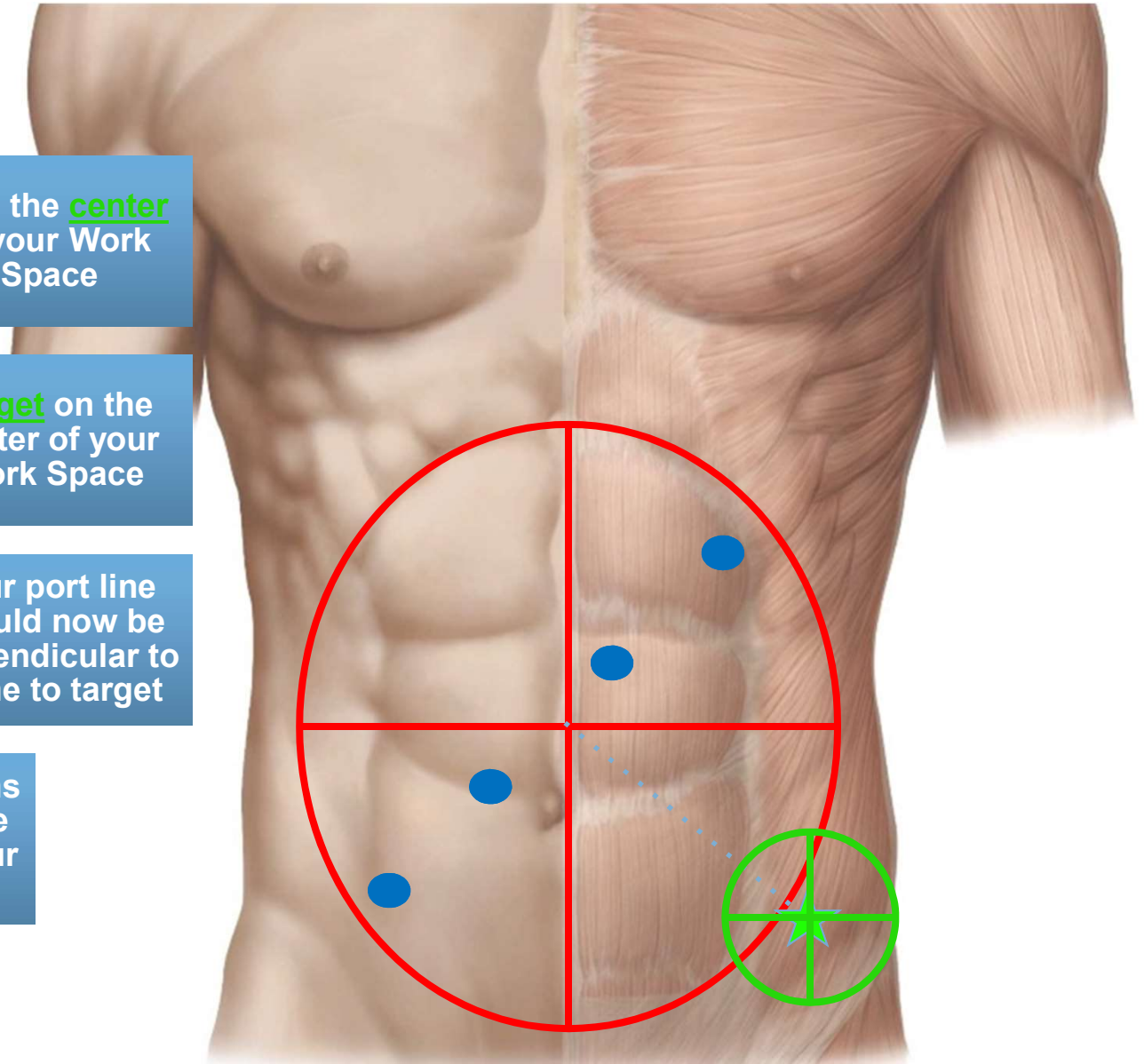
Draw a  
perpendicular

Target on the  
center of your  
Work Space

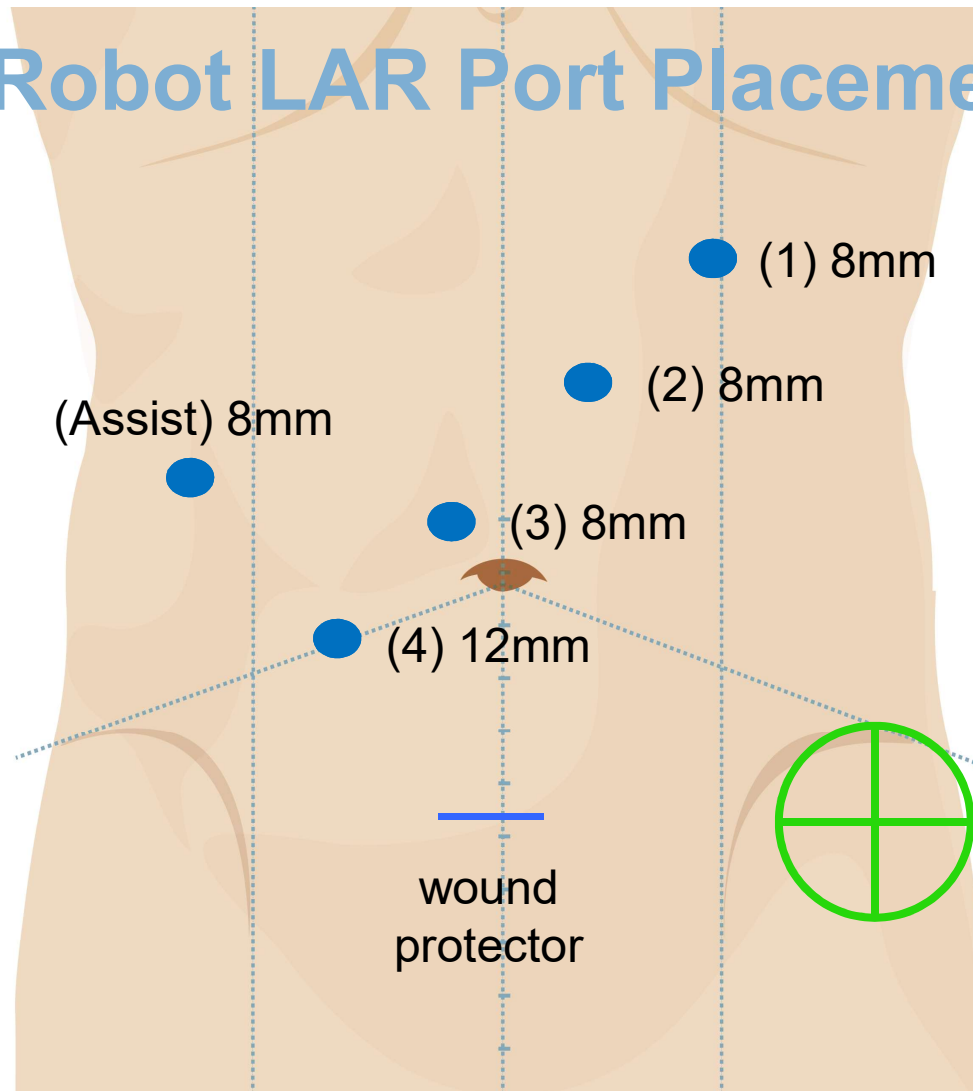
THAT is your  
“Target  
Anatomy”

Your port line  
should now be  
perpendicular to  
a line to target

Your robot arms  
should now be  
in line with your  
ports



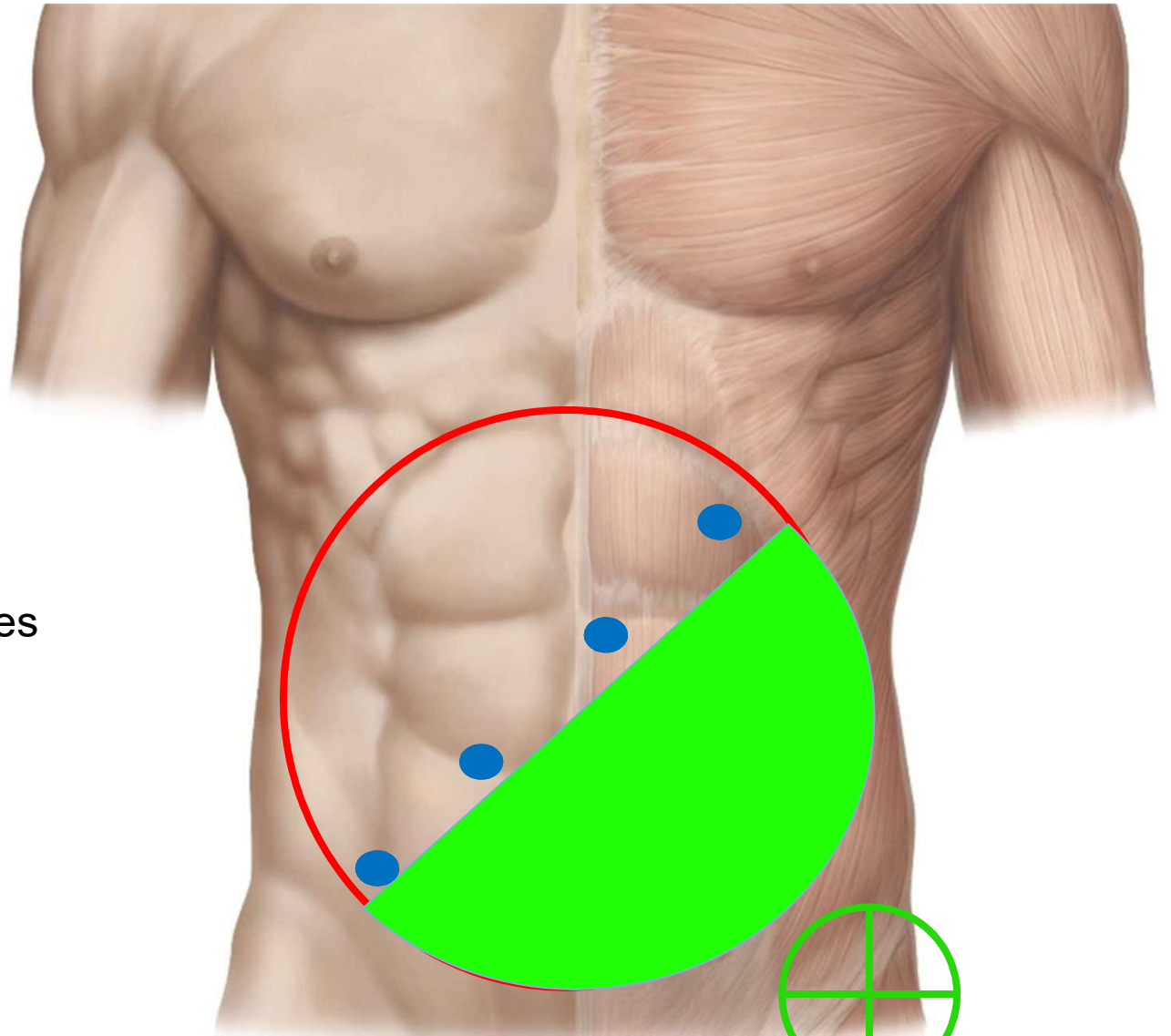
# Robot LAR Port Placement





# Xi Reach without adjustments

180 degrees



# F L E X joint

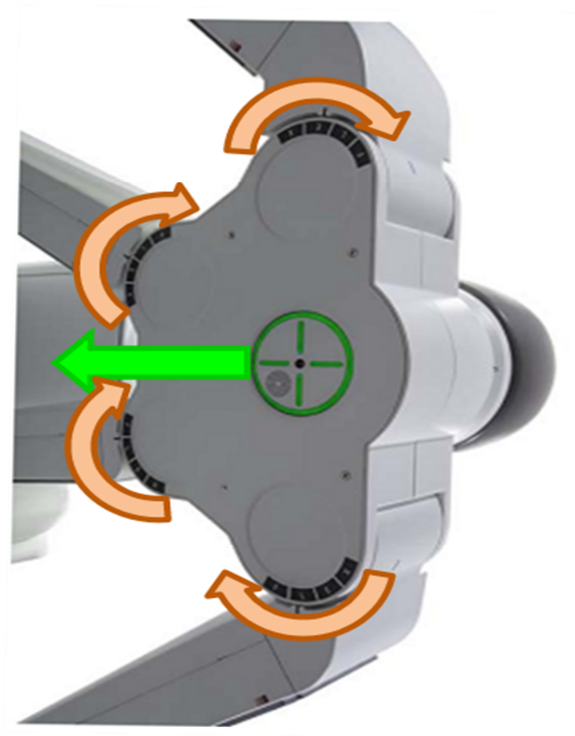
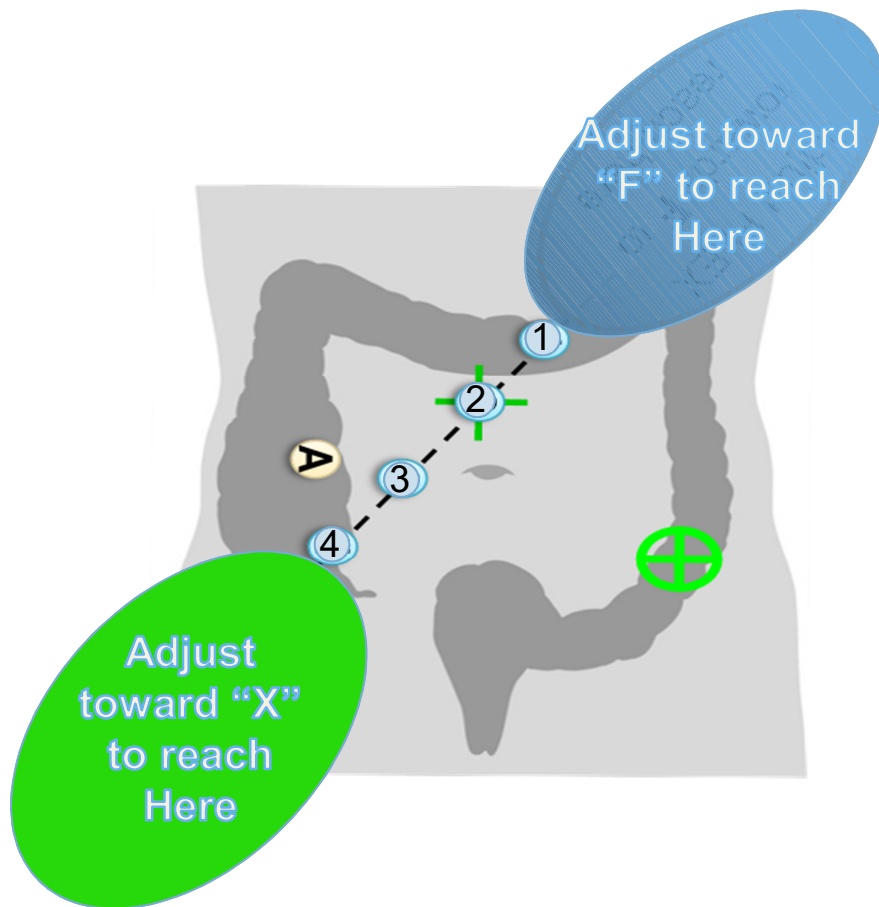
Target camera with arm  
between “L” and “E”

The other arms will be  
placed 1 fist-breadth away to  
allow clearance

When you need more lateral  
reach move all the FLEX  
joints in the direction you  
need

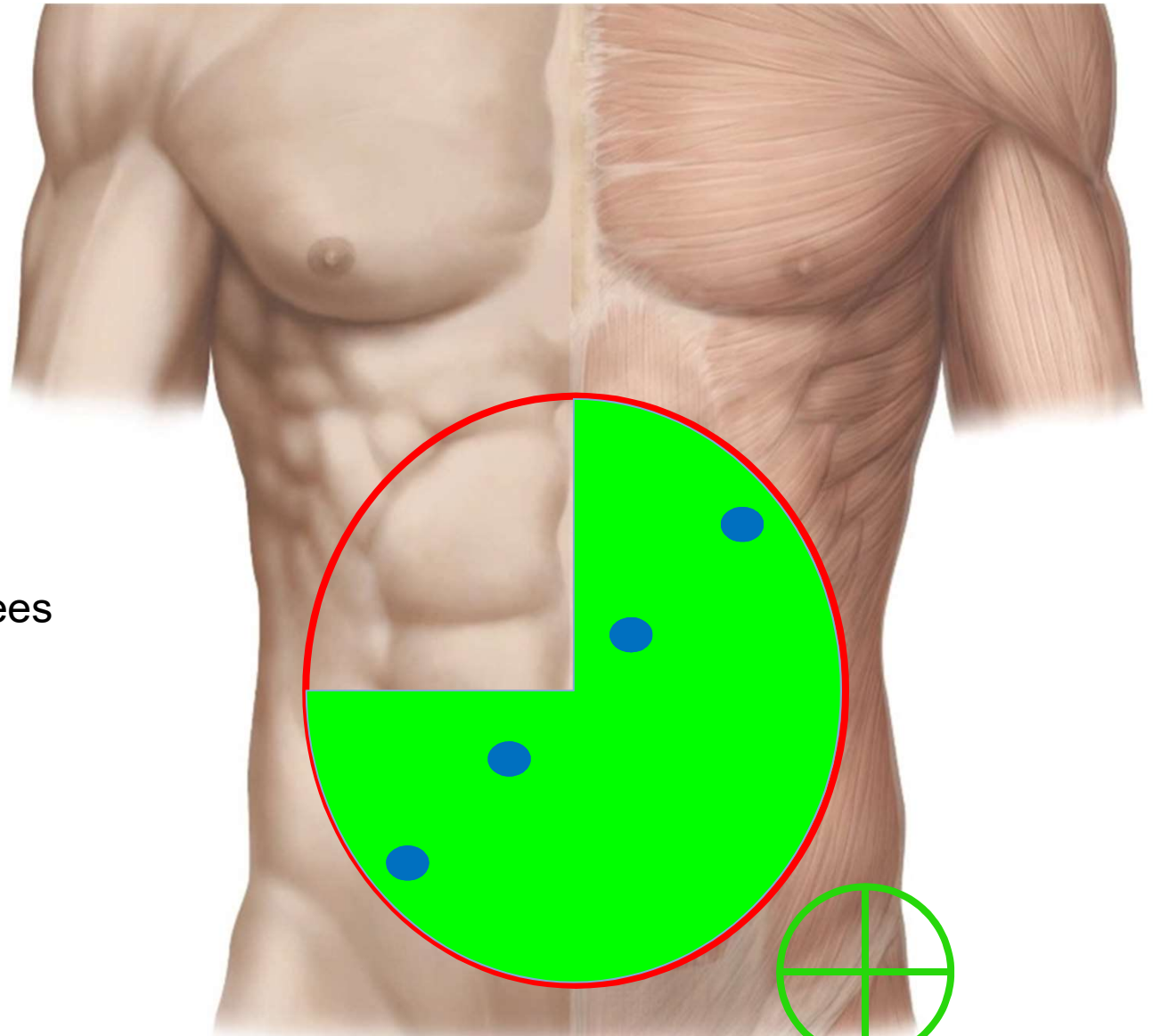


# FLEX Joint Adjustment

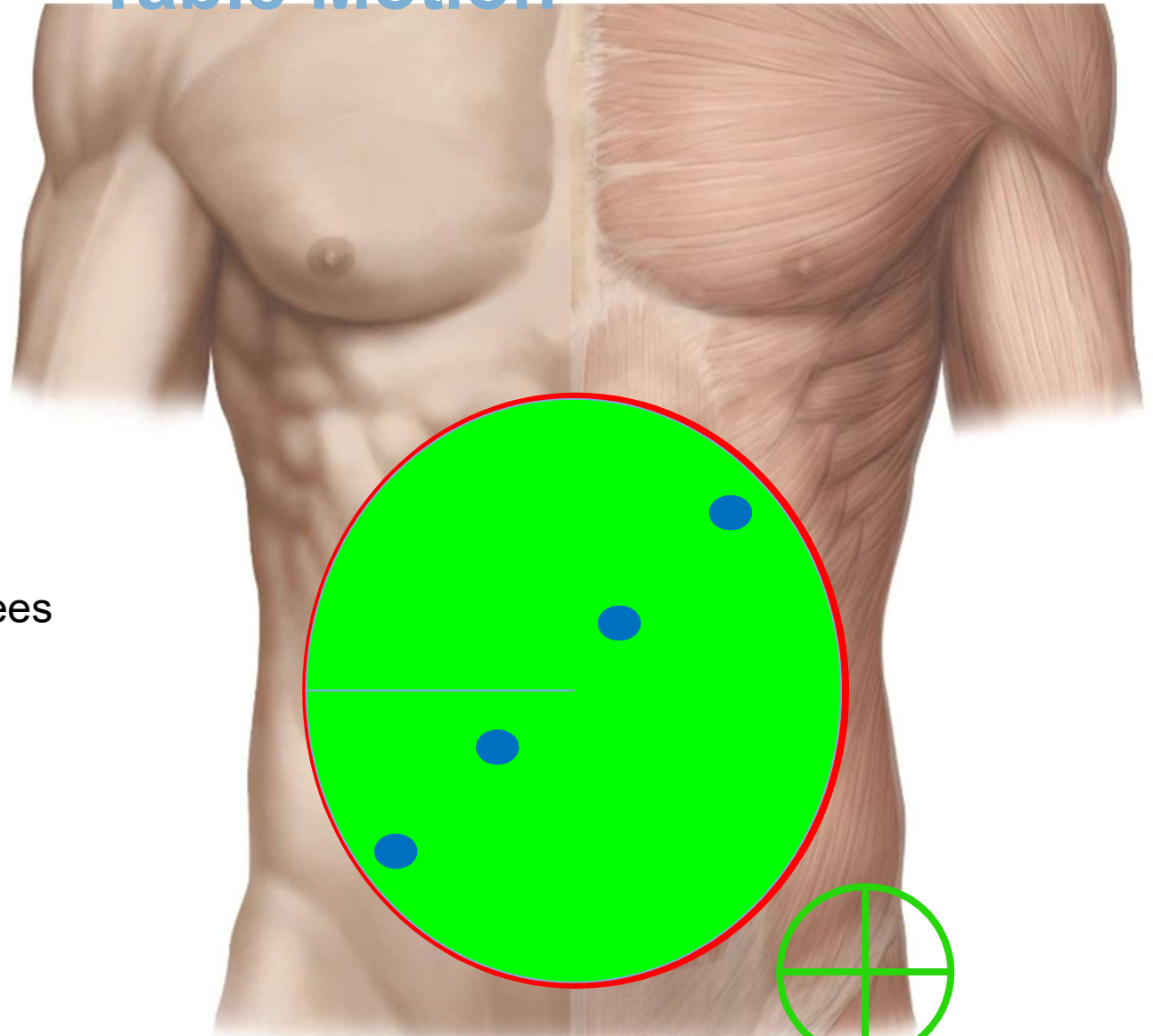


# Xi Reach with FLEX joint adjustments

270 degrees



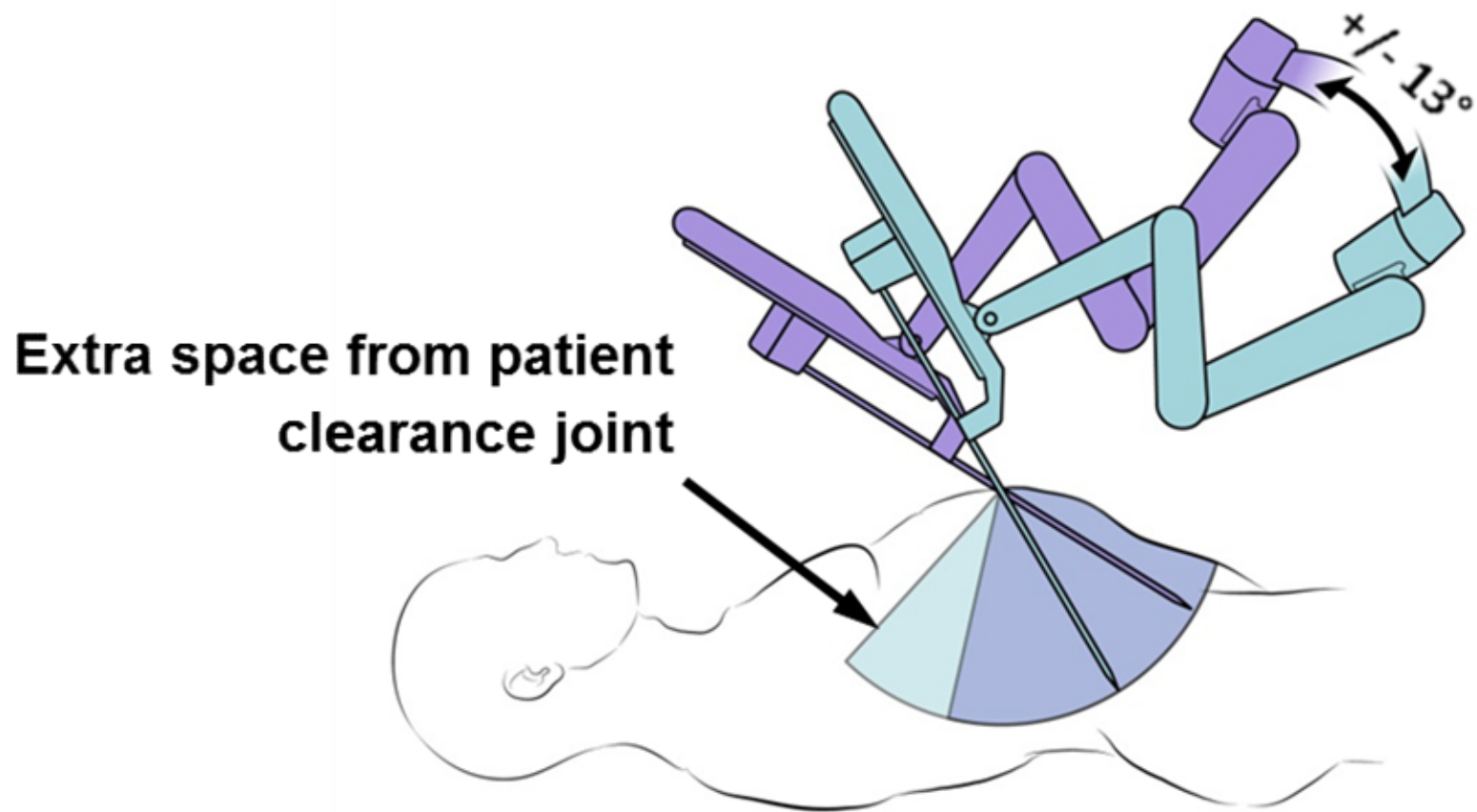
# Xi Reach with Advanced Adjustments and Table Motion



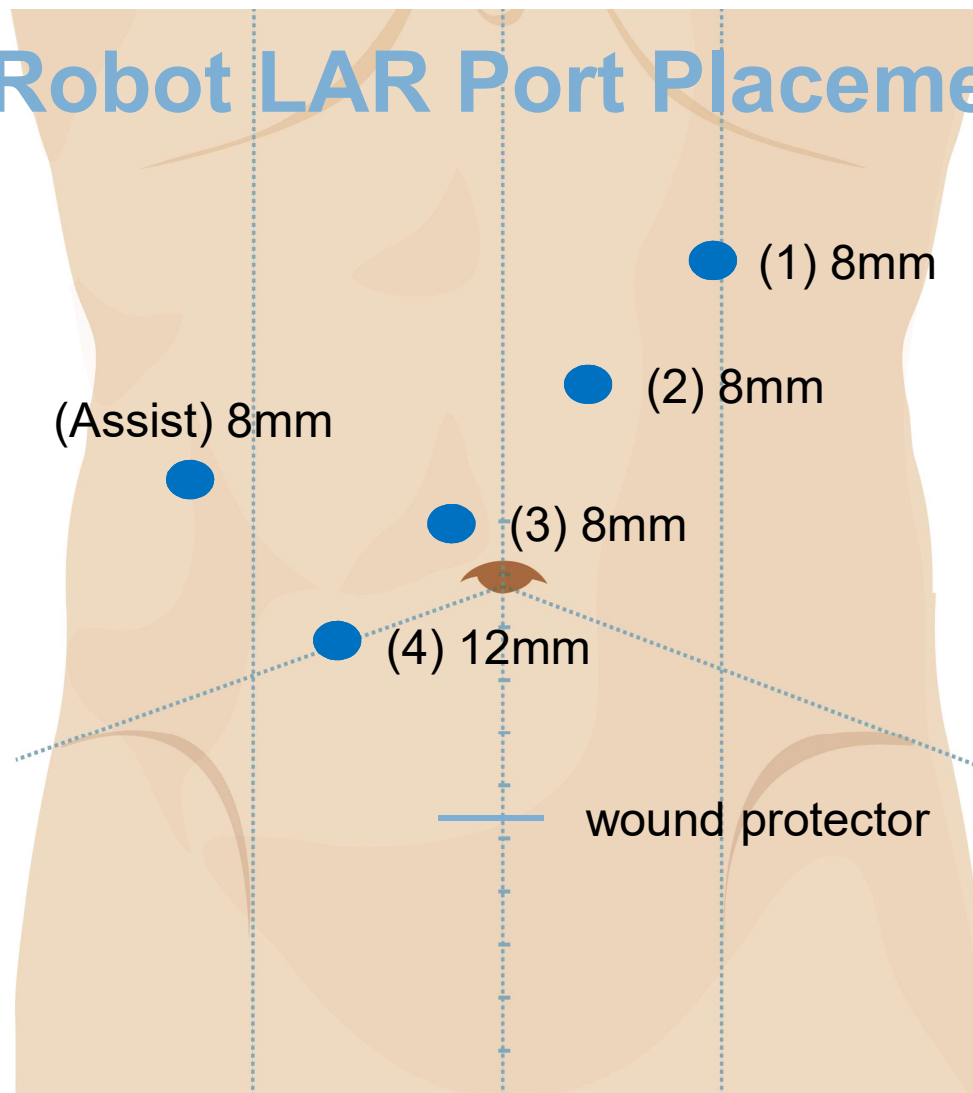
360 degrees



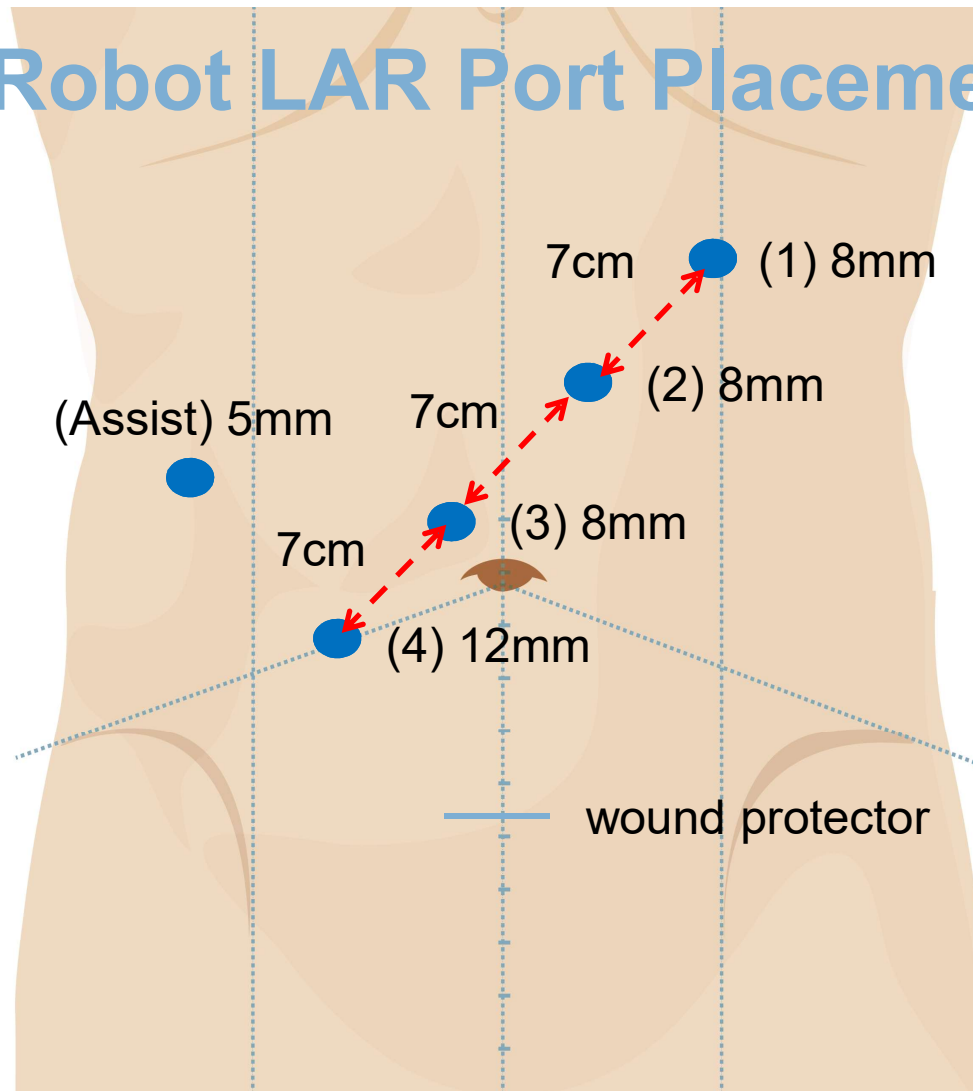
# Patient Clearance Joint



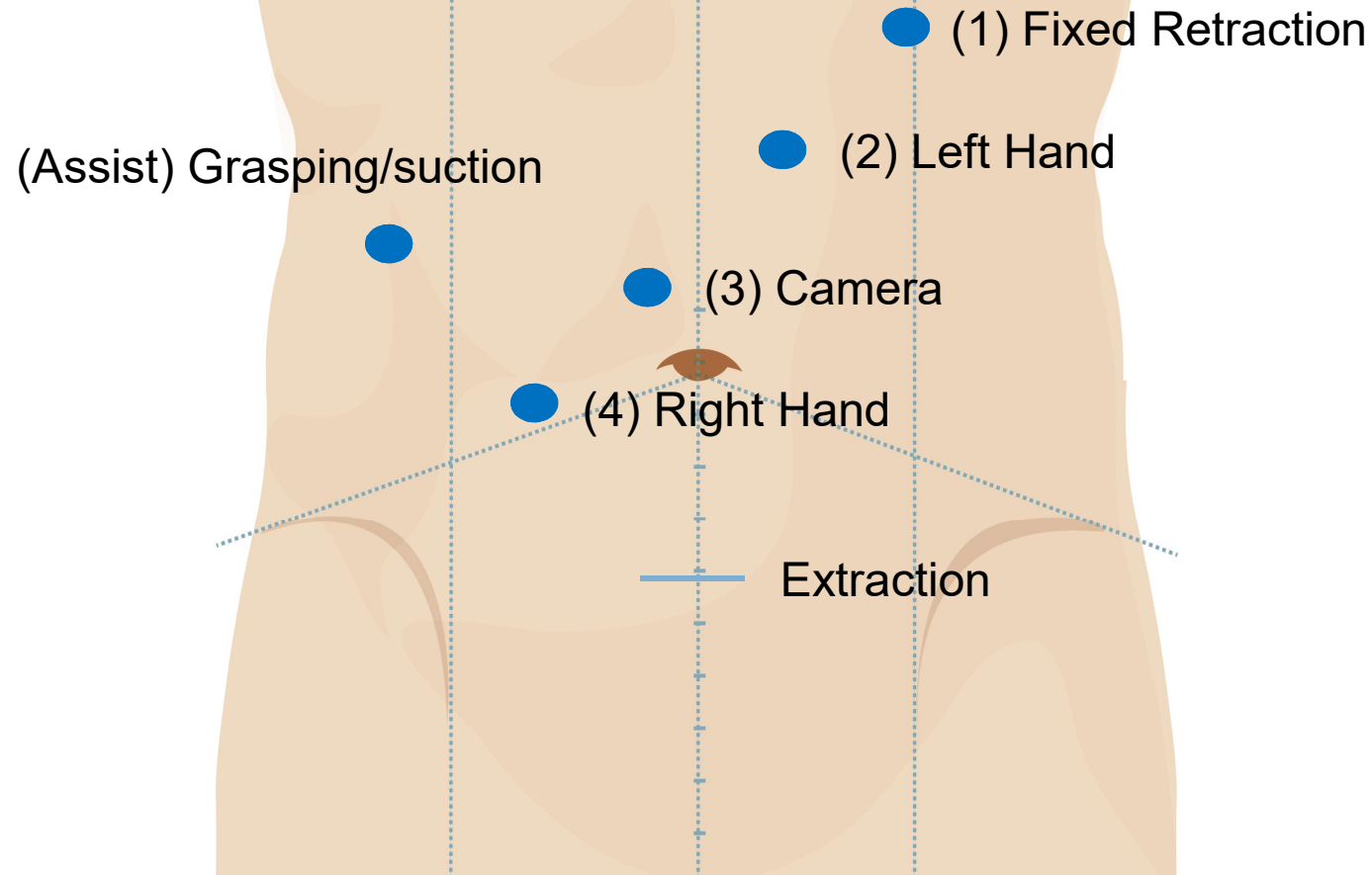
# Robot LAR Port Placement



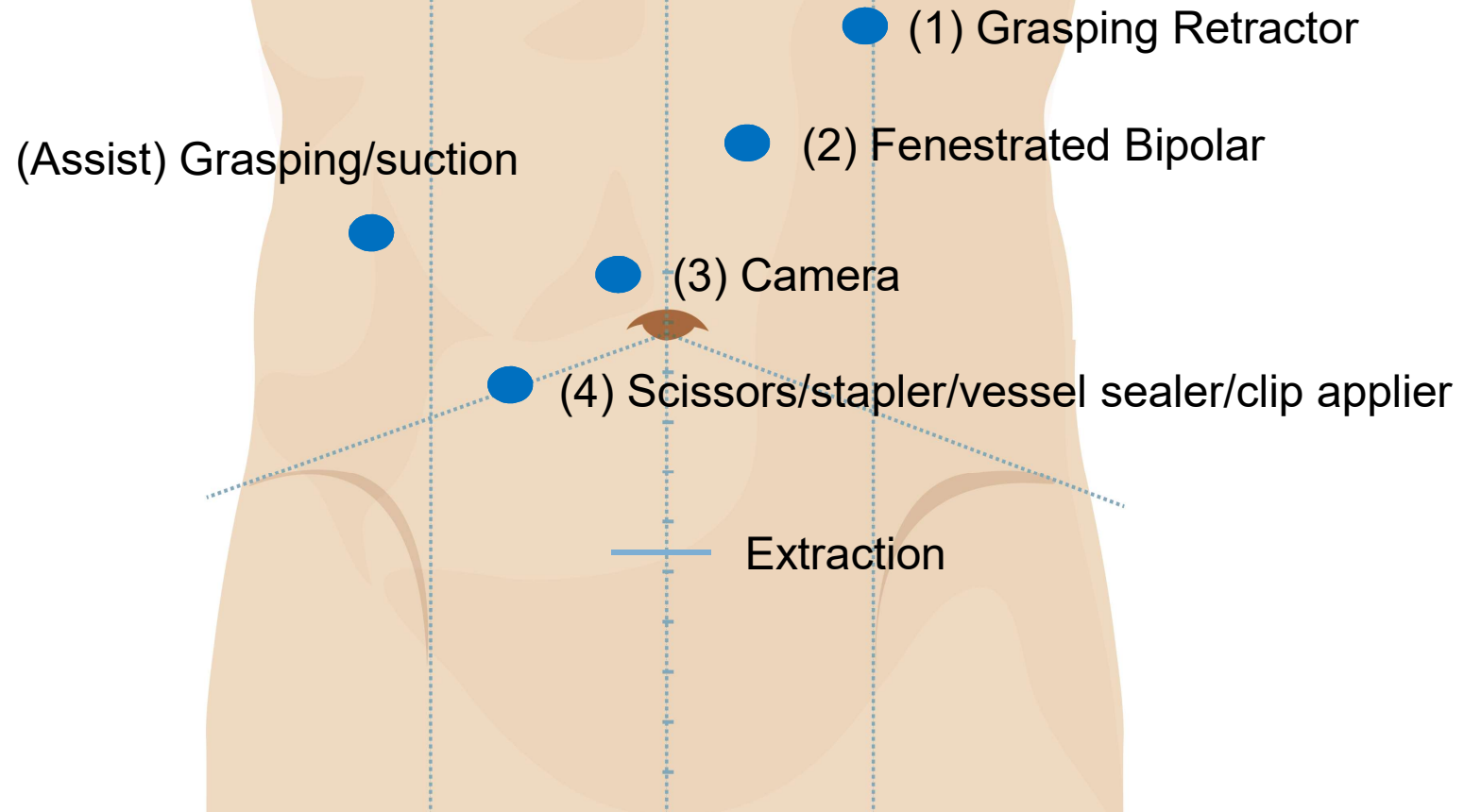
# Robot LAR Port Placement



# Robot LAR Port Roles

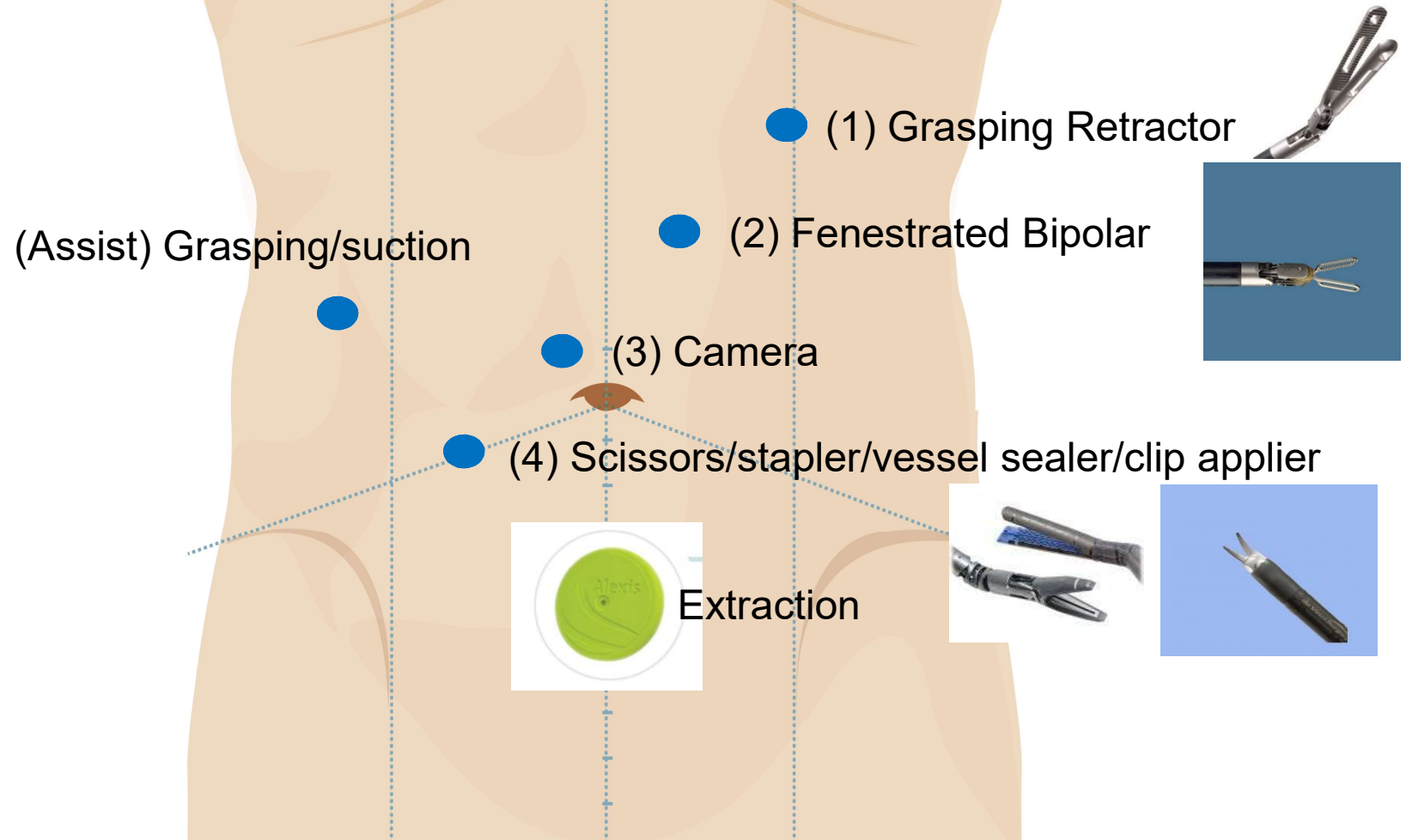


# Robot LAR Instrument Placement





# Robot LAR Instrument Placement



# Instrument selection

grasping retractor



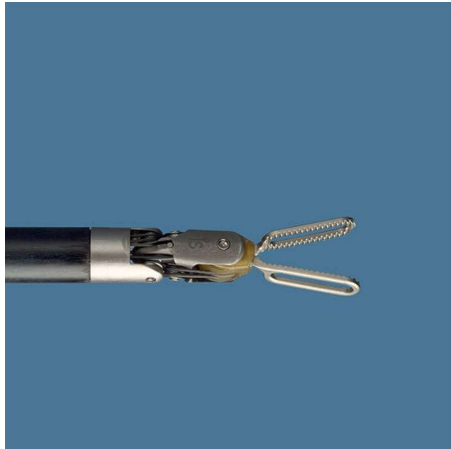
clip applier



stapler



vessel sealer

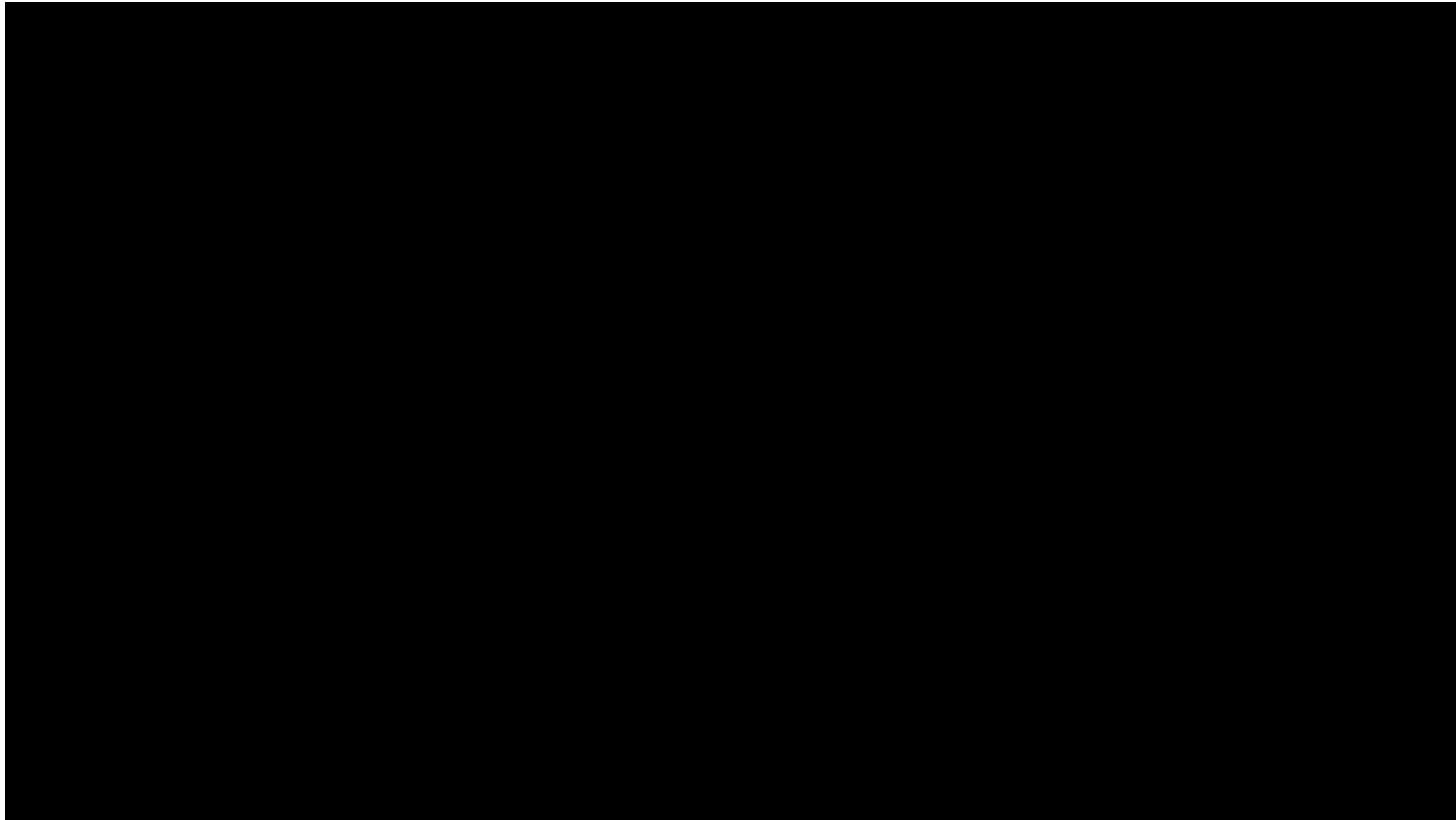


Fenestrated\_Bipolar

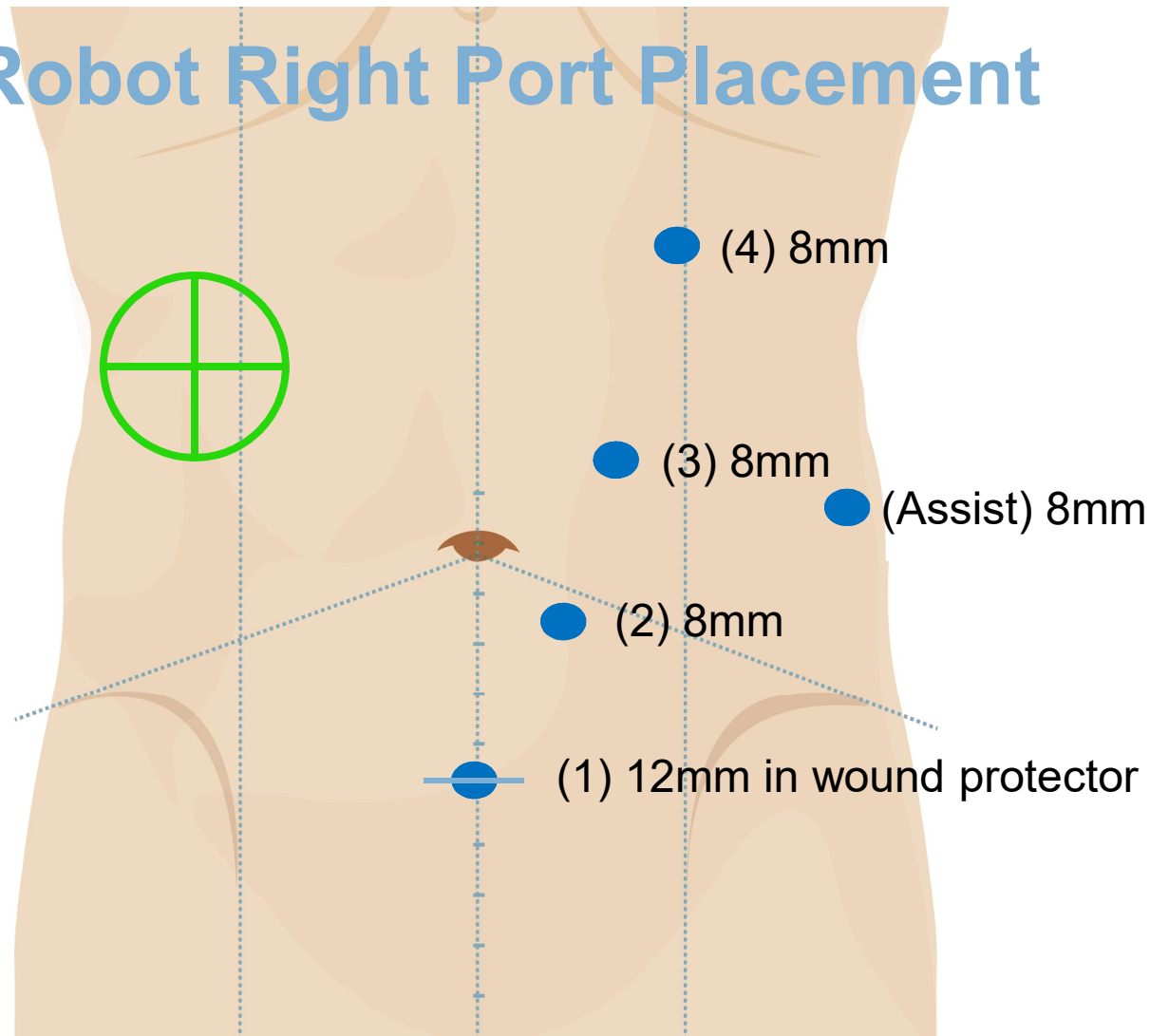


monopolar scissors

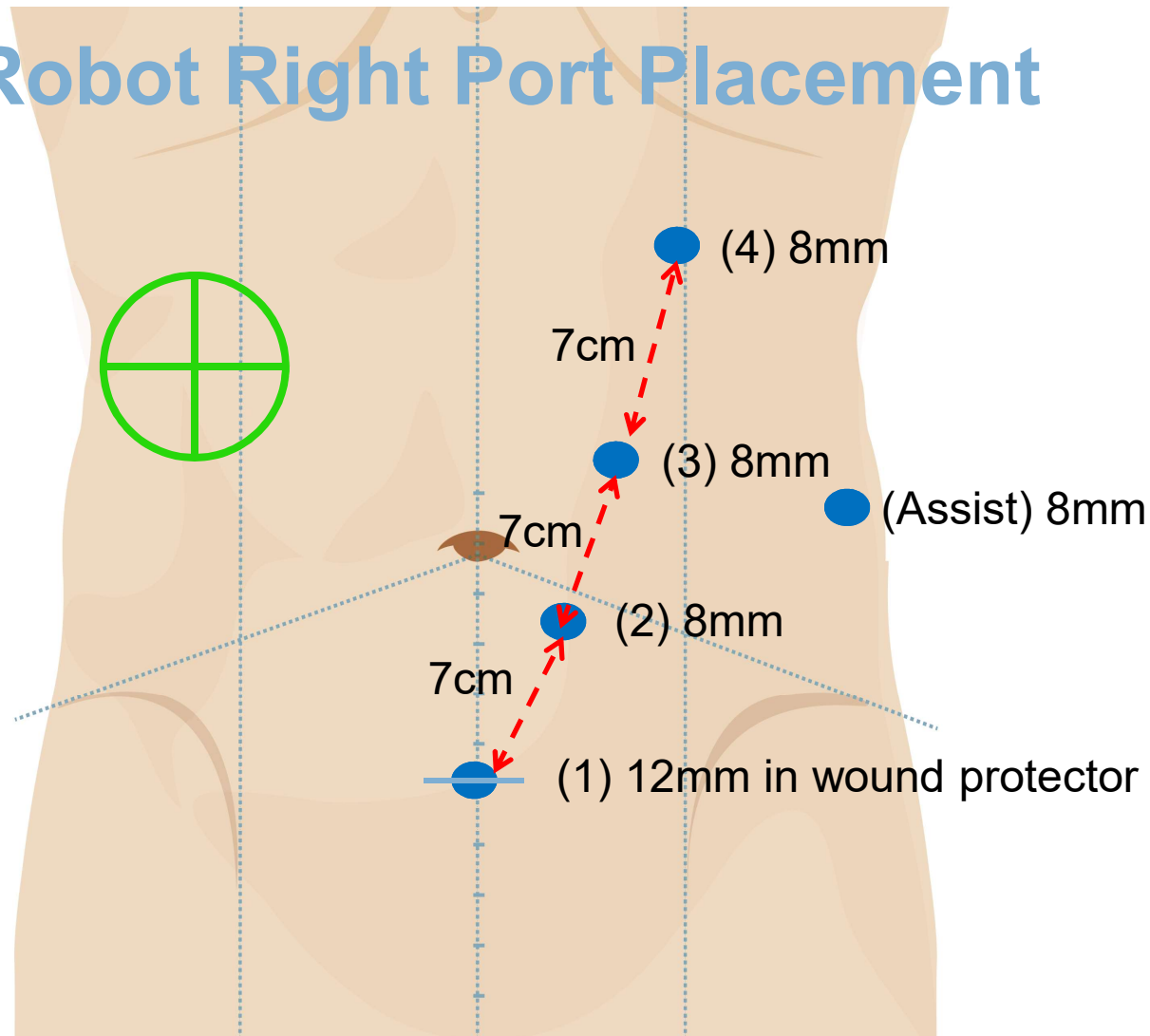
# Anastomosis



# Robot Right Port Placement

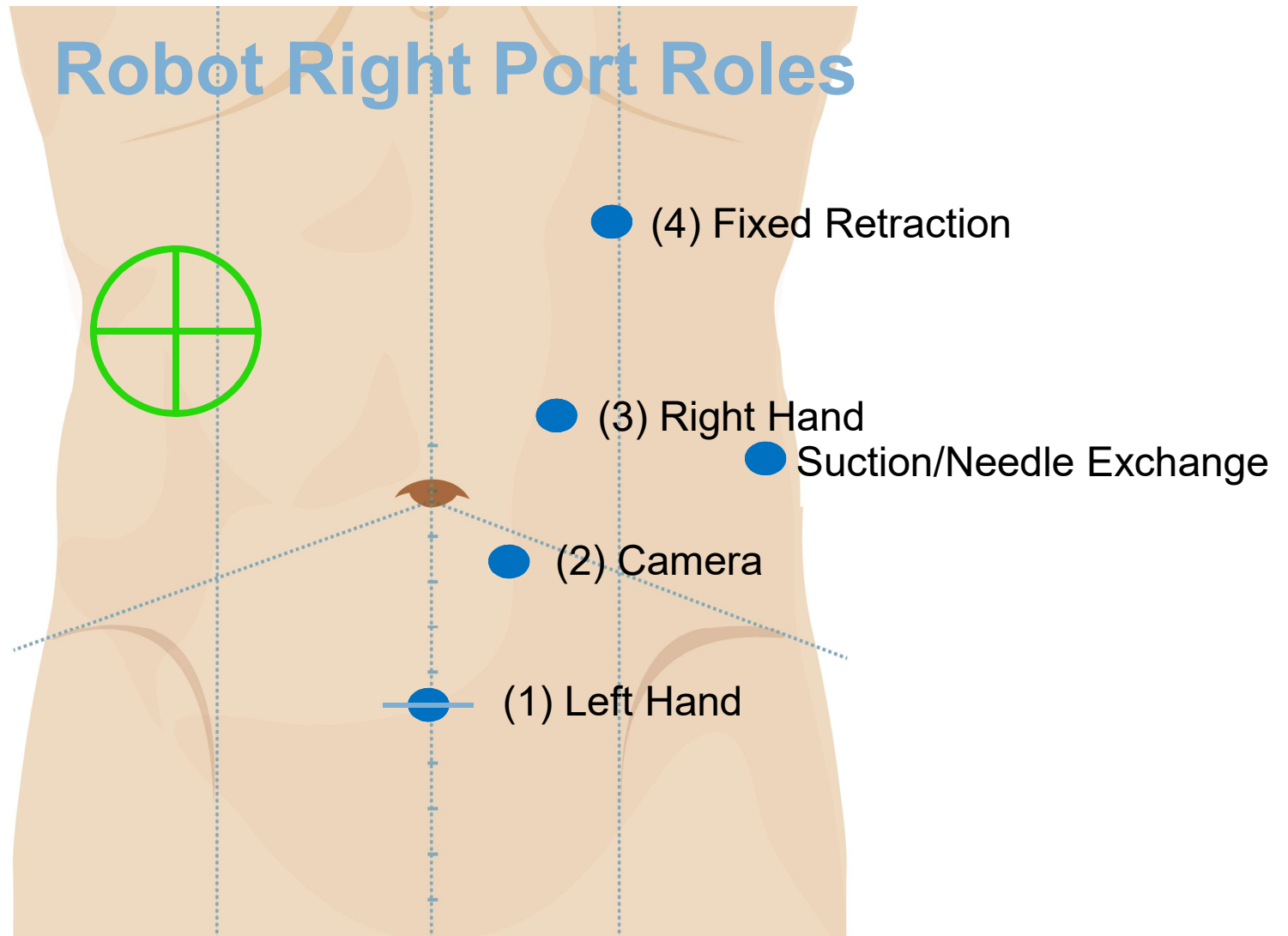


# Robot Right Port Placement

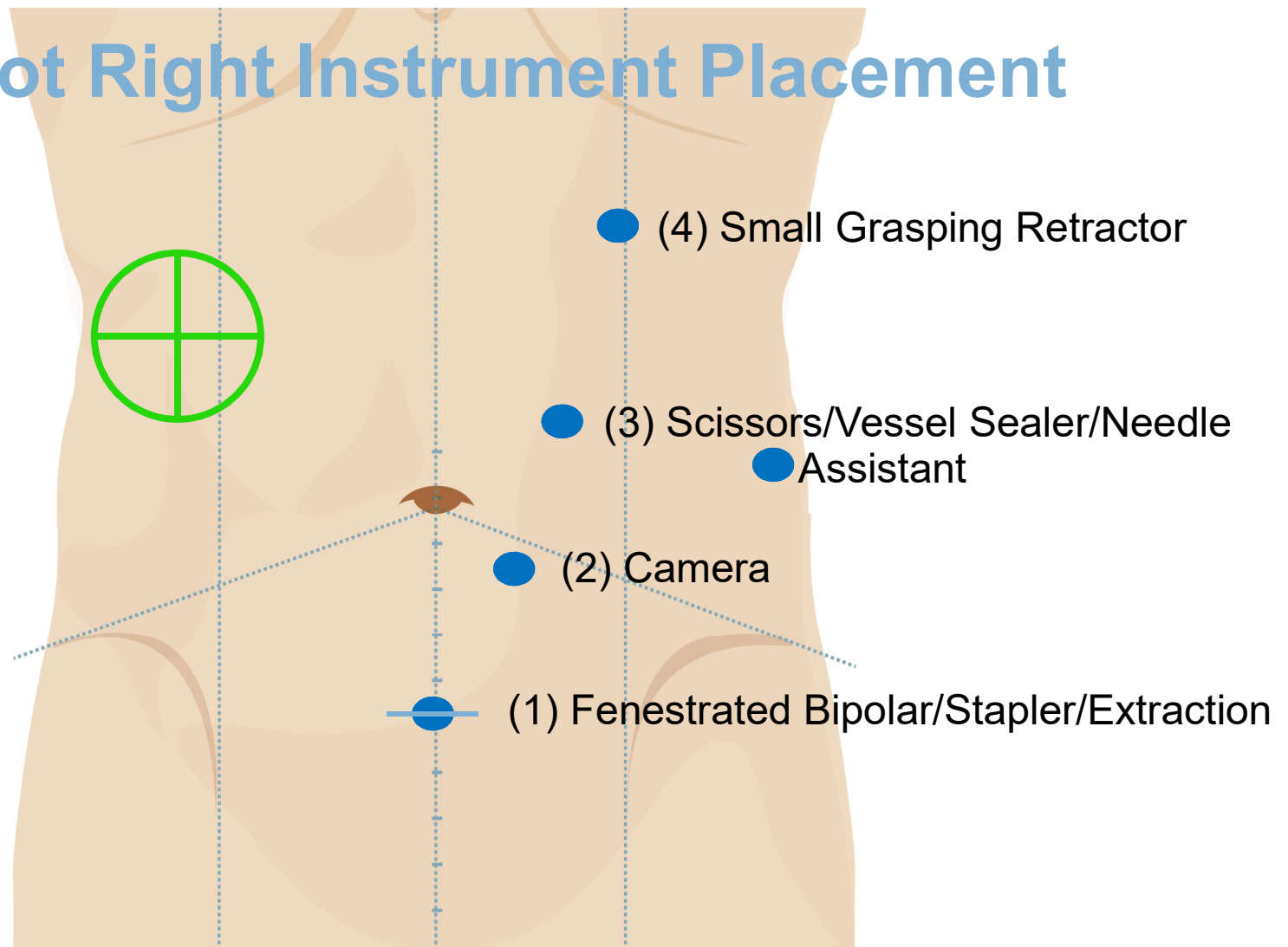




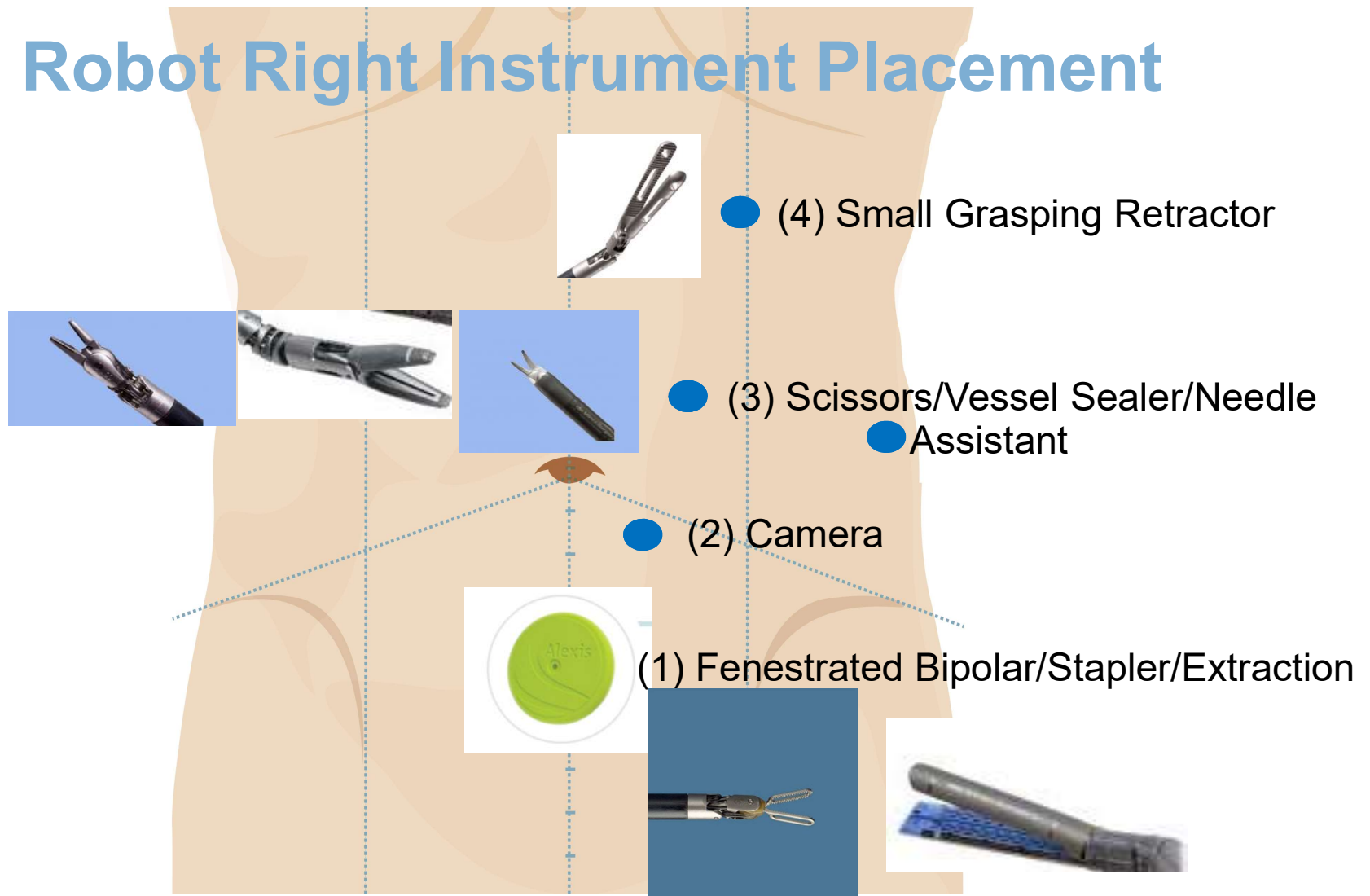
# Robot Right Port Roles



# Robot Right Instrument Placement



# Robot Right Instrument Placement



# Instrument selection

grasping retractor



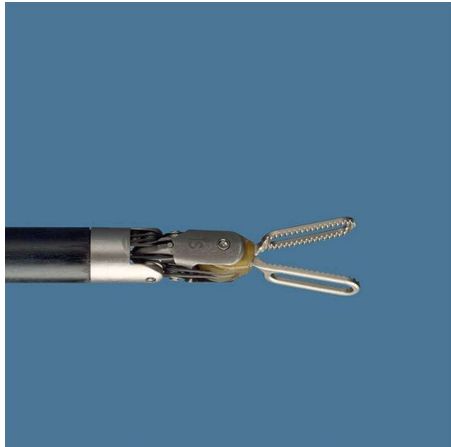
Needle driver



stapler



vessel sealer

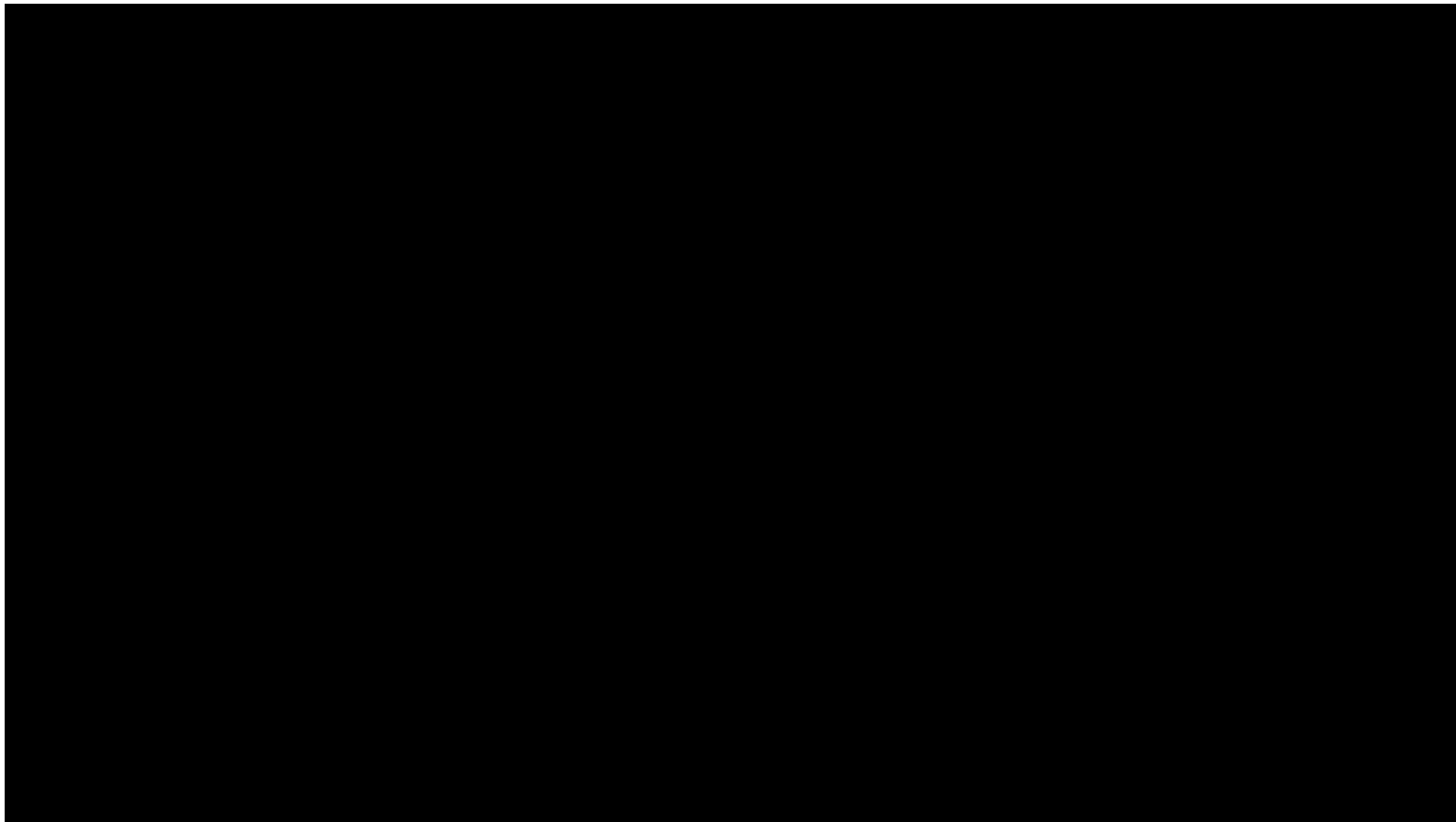


Fenestrated\_Bipolar



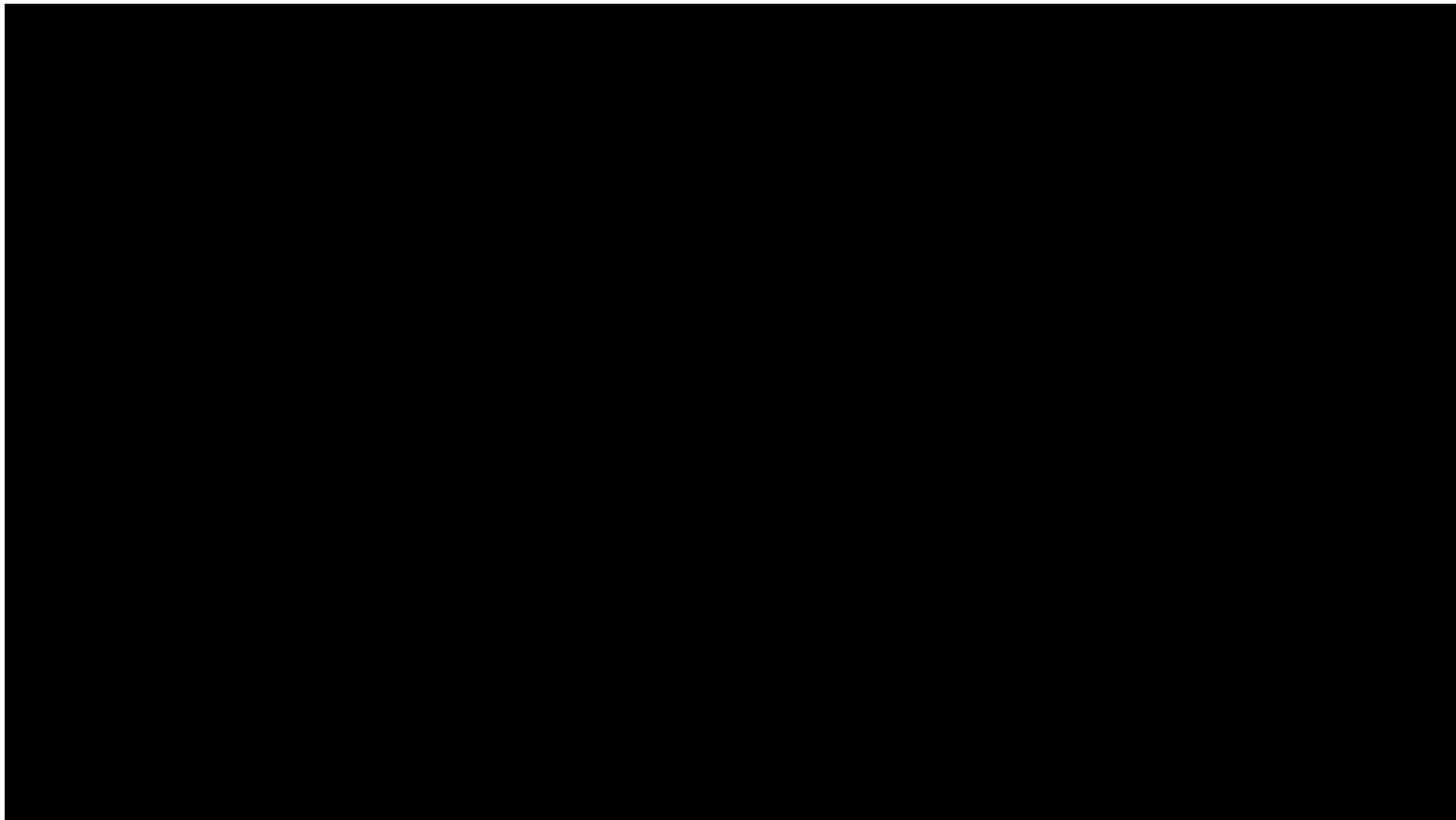
monopolar scissors

# Anastomosis





# ICG



# Robotic Colorectal Surgery

1 MIS > open  
2 MIS \$ < open \$  
3 MIS penetrance ↓ CRS  
4 #roboticCRS ↑ MIS #  
5 Rx cost = lap colon  
6 \$ ↓ w/experience



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# THANK YOU





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