

LIVSMED



ARTISENTIAL
Articulating Laparoscopic Instrument

Surgeon Training SOP

Standard Operating Procedure

ArtiSential Training Checklist

ArtiSential Joint Control Exercises

Training Descriptions	Completion Date
Radial/Ulnar Deviation Advance/Touch	
Flexion/Extension Advance/Touch	
Ipsilateral/Contralateral 90 Degree Rotation	
Medial Adjacent Peg Movement	

ArtiSential Module 1: ArtiSential Proficiency

Training Descriptions	Completion Date
Module 1: Beginning Movements	
Module 1: Intermediate Movements	
Module 1: Advanced Movements	
Transfer Pegs From Top to Bottom in 2 Minutes	
Transfer Pegs From Top to Bottom to Side in 4 Minutes	

ArtiSential Module 2: Suturing (Optional)

Training Descriptions	Completion Date
Module 2: Forehand Suture Pass (Needle Only)	
Module 2: Backhand Suture Pass (Needle Only)	
Module 2: Continuous Forehand Suturing	
Module 2: Continuous Backhand Suturing	
Surgeon Knot Tying	

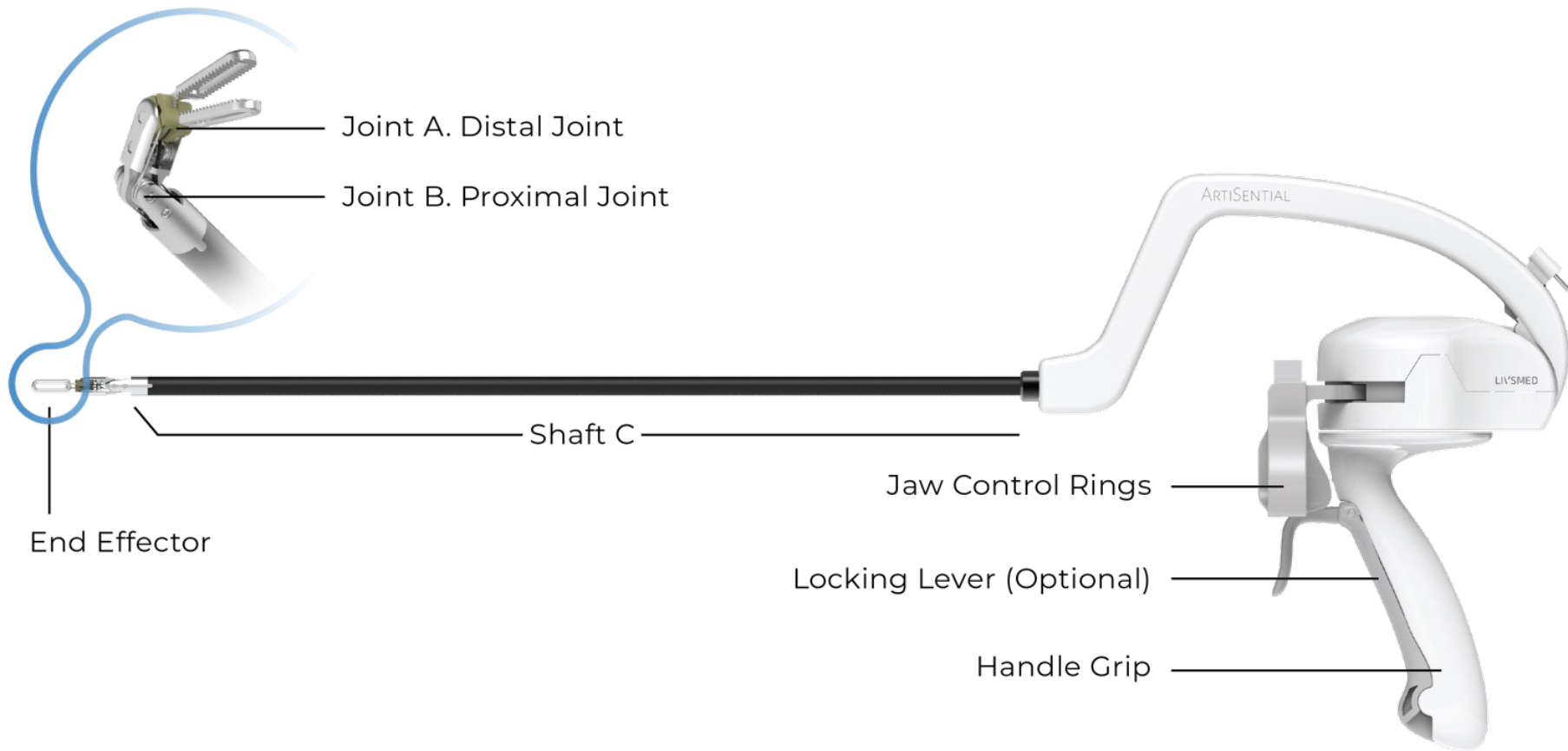


Best Practices

- Conduct training sessions 7-10 days apart
- Training session duration: 20 minutes
- Review prior training modules to validate competency before introduction of new lesson
- Conduct first cases after the completion of module 1- Issue certificate of Proficiency
- Conduct 5 ArtiSential surgeries without needle holder prior to performing ArtiSential suturing training
- Conduct Module 2 Suturing Training
- Issue ArtiSential Mastery Certificate after Module 2 training.

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ArtiSential Anatomy Review



Artisential Anatomy Review

I. Review Nomenclature

- a. End Effector
- b. Shaft
- c. Jaw Control Rings
- d. Handle Grip
- e. Locking Lever (Optional)

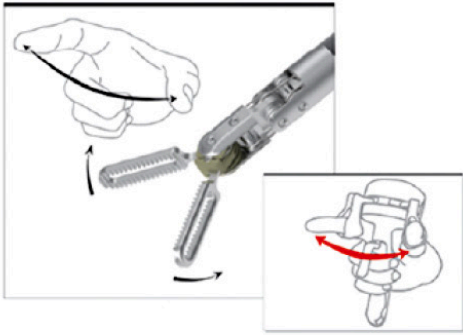
II. Operation

- a. Joint A- Distal Joint
- b. Joint B – Proximal Joint
- c. Shaft C
- d. Home/Neutral Position

III. Navigation Terminology

- a. Radial Deviation – Joint A Movement
- b. Ulnar Deviation – Joint A Movement
- c. Flexion – Joint B Movement
- d. Extension – Joint B Movement
- e. Pronation – Shaft C Movement
- f. Supination – Shaft C Movement

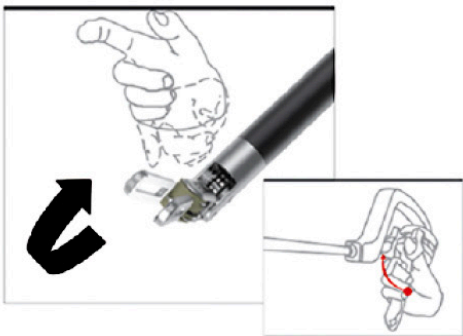
Open



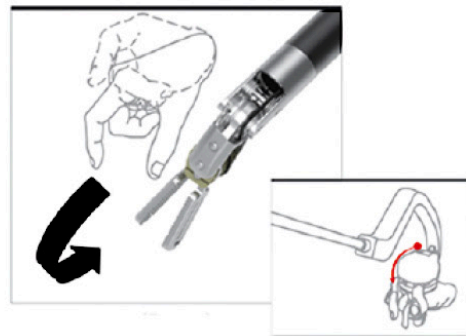
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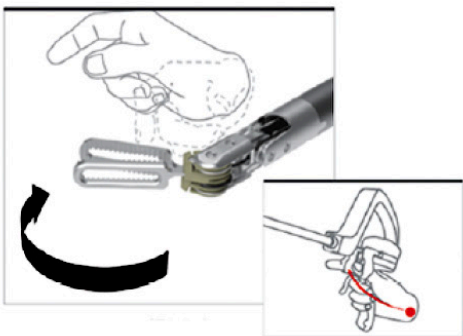
Extension



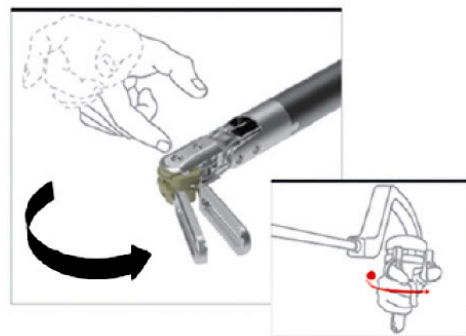
Flexion



Ulnar Deviation



Radial Deviation



Pronation

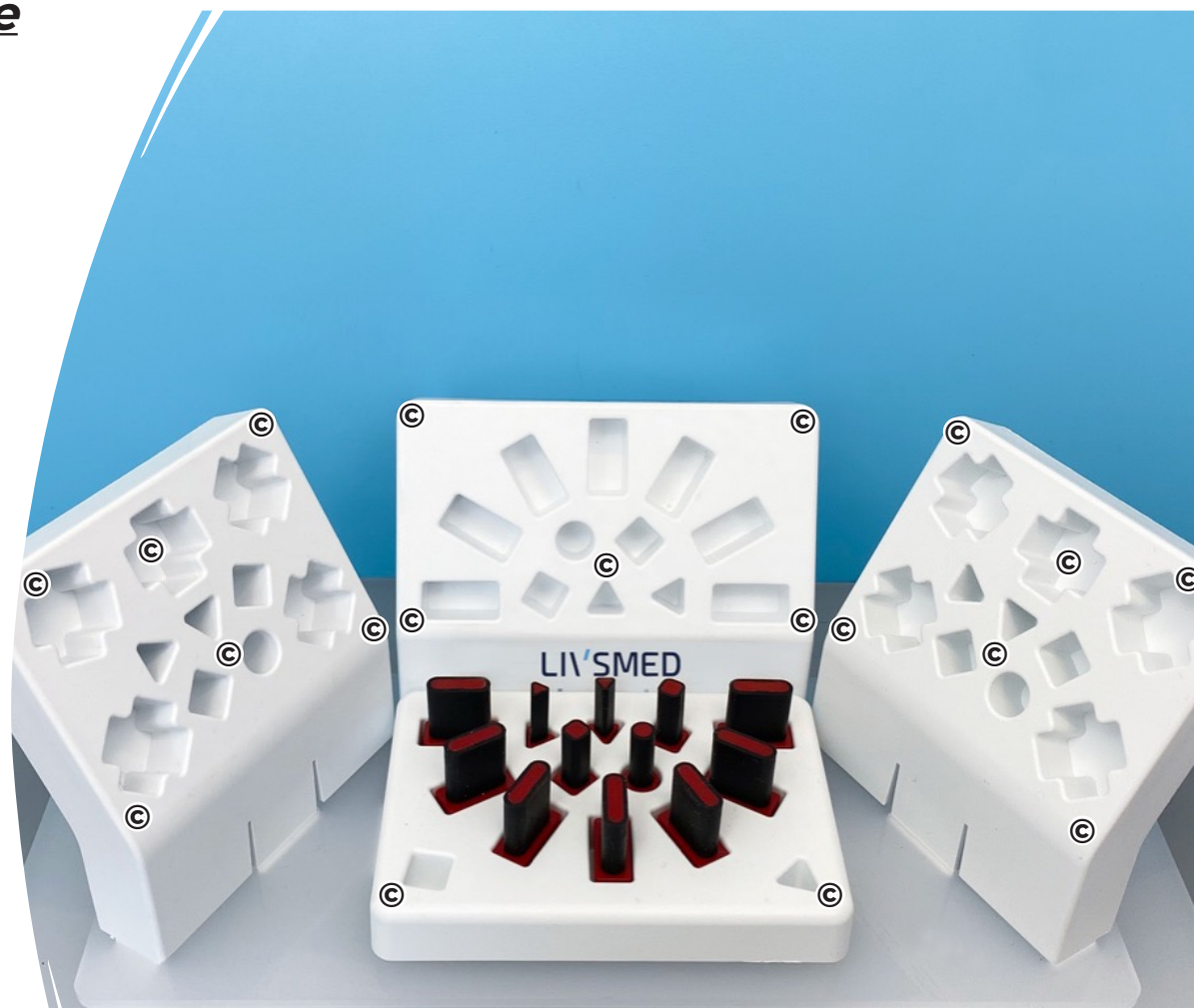


Supination



Exercises: Joint Control

- Radial Deviation, advance, touch peg board, back to neutral (keep proximal joint straight)
- Ulnar Deviation, advance, touch peg board, back to neutral (keep proximal joint straight)
- Flexion, advance, touch peg board, back to neutral (keep distal joint straight)
- Extension, advance, touch peg board, back to neutral (keep distal joint straight)
- While in neutral position. Touch all points with the tip of the end effector in a perpendicular fashion



© = Recommended Touch Points

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Exercises: Minor Peg Movements

- Medial Board Adjacent Peg Move: A->B or ->C (repeat around medial board)
- 90 Deg. Lateral Peg Rotation: Place 5 rectangle pegs in areas marked D. Pull out from D, rotate 90 degrees with pronation or supination and replace back in D.

“->” means “Move To”



Module 1: Beginning Movements

- Radial Deviation: A->B->A (right trocar)
- Ulnar Deviation: A->C->A (left trocar)
- Flexion/Extension: A->D->A (right trocar)
- Flexion/Extension: A->E->A (left trocar)
- Pronation: A->F->A (right trocar)
- Supination: A->G->A (left trocar)

When approaching from the right trocar, use slight Ulnar deviation to move the peg in and out at A

When approaching from the left trocar, use slight Radial deviation to move the peg in and out at A



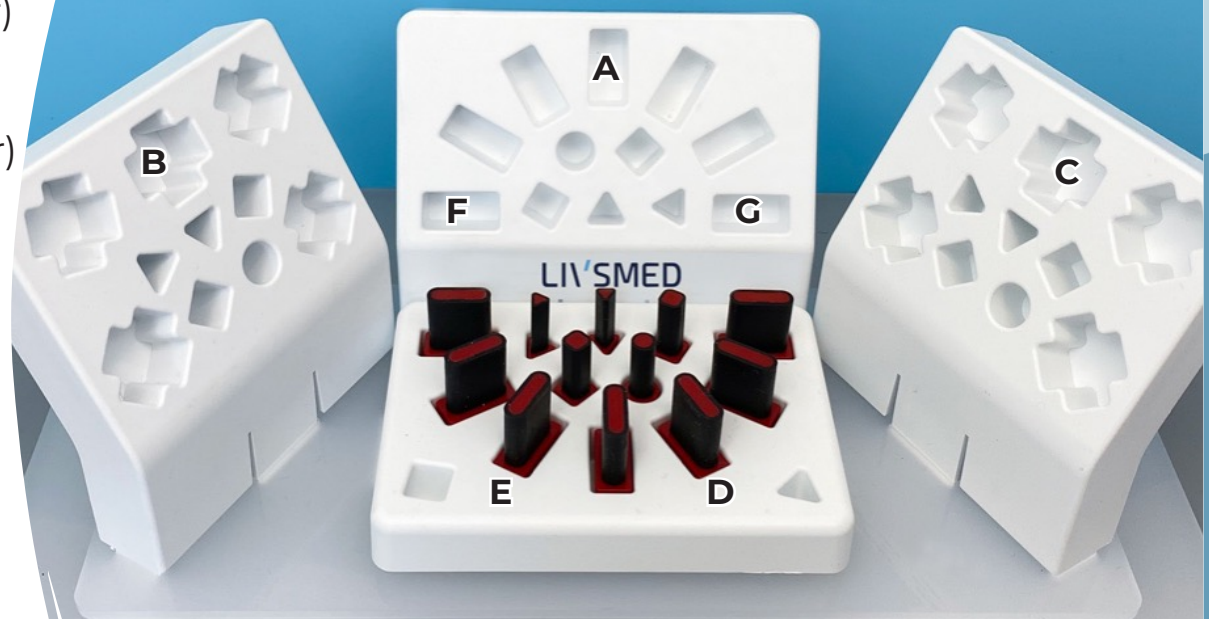
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Standard Operating Procedure

Training Modules

Module 1: Intermediate Movements

- Ulnar w Supination: A->C->A (left trocar)
- Ulnar w Pronation: A->C->A (left trocar)
- Radial Supination: A->B->A (right trocar)
- Radial Pronation: A->B->A (right trocar)



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Articulating Laparoscopic Instrument

Module 1: Advanced Movements

- Radial Deviation/Pronation/Flexion:
A->B->A (right or left trocar)
- Radial Deviation/Pronation/Flexion:
A->C->A (right or left trocar)
- Ulnar Deviation/Flexion:
A->D->A (right or left trocar)
- Flexion:
A->E->A (right or left trocar)
- Radial Deviation/Supination:
A->F->A (right or left trocar)
- Radial Deviation/Pronation/Flexion:
A->G->A (right or left trocar)
- Radial Deviation/Pronation/Flexion:
A->H->A (right or left trocar)



Module 2 : Suturing

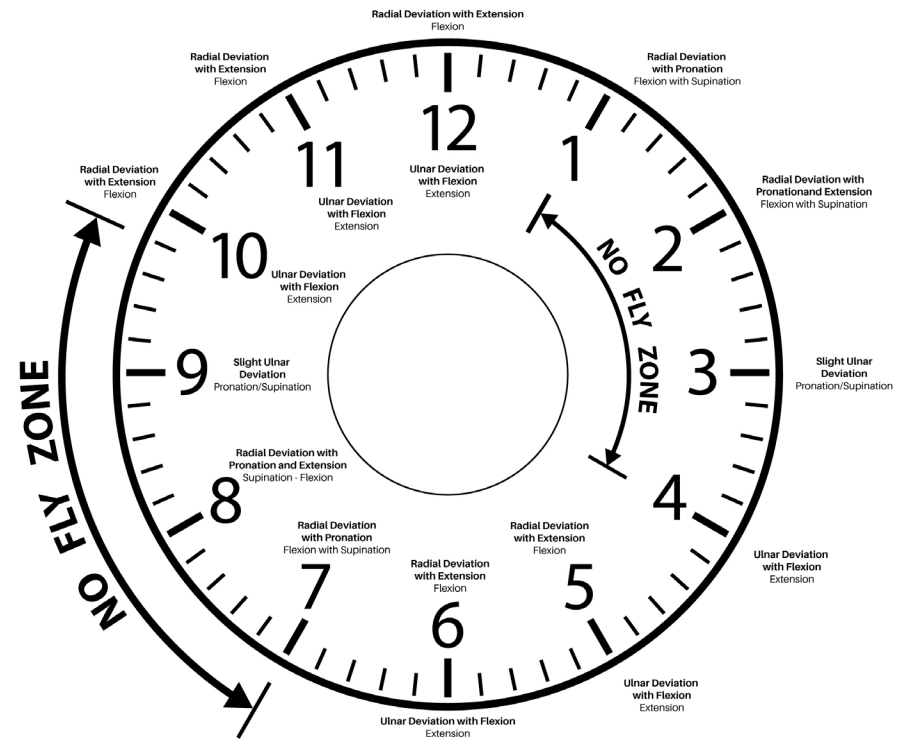
I. Suture Clock

a. Introduction and demonstration

II. Exercises *Refer to ArtiSential Surgeon

Training Manual – Suturing Video

- a. Exercise 1 - Lateral/Medial suture at 12 o'clock
- b. Exercise 2 - Lateral/Medial suture at 1 o'clock
- c. Exercise 3 - Lateral/Medial suture at 3 o'clock
- d. Exercise 4 - Lateral/Medial suture at 4 o'clock
- e. Exercise 5 - Lateral/Medial suture at 5 o'clock
- f. Exercise 6 - Lateral/Medial suture at 6 o'clock
- g. Exercise 7 - Lateral/Medial suture at 10 o'clock
- h. Exercise 8 - Lateral/Medial suture at 11 o'clock
- i. Exercise 9 - Medial/Lateral suture at 12 o'clock
- j. Exercise 10 - Medial/Lateral suture at 5 o'clock
- k. Exercise 11 - Medial/Lateral suture at 6 o'clock
- l. Exercise 12 - Medial/Lateral suture at 7 o'clock
- m. Exercise 13 - Medial/Lateral suture at 8 o'clock
- n. Exercise 14 - Medial/Lateral suture at 9 o'clock
- o. Exercise 15 - Medial/Lateral suture at 10 o'clock
- p. Exercise 16 - Medial/Lateral suture at 11 o'clock



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Standard Operating Procedure

Training Modules

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