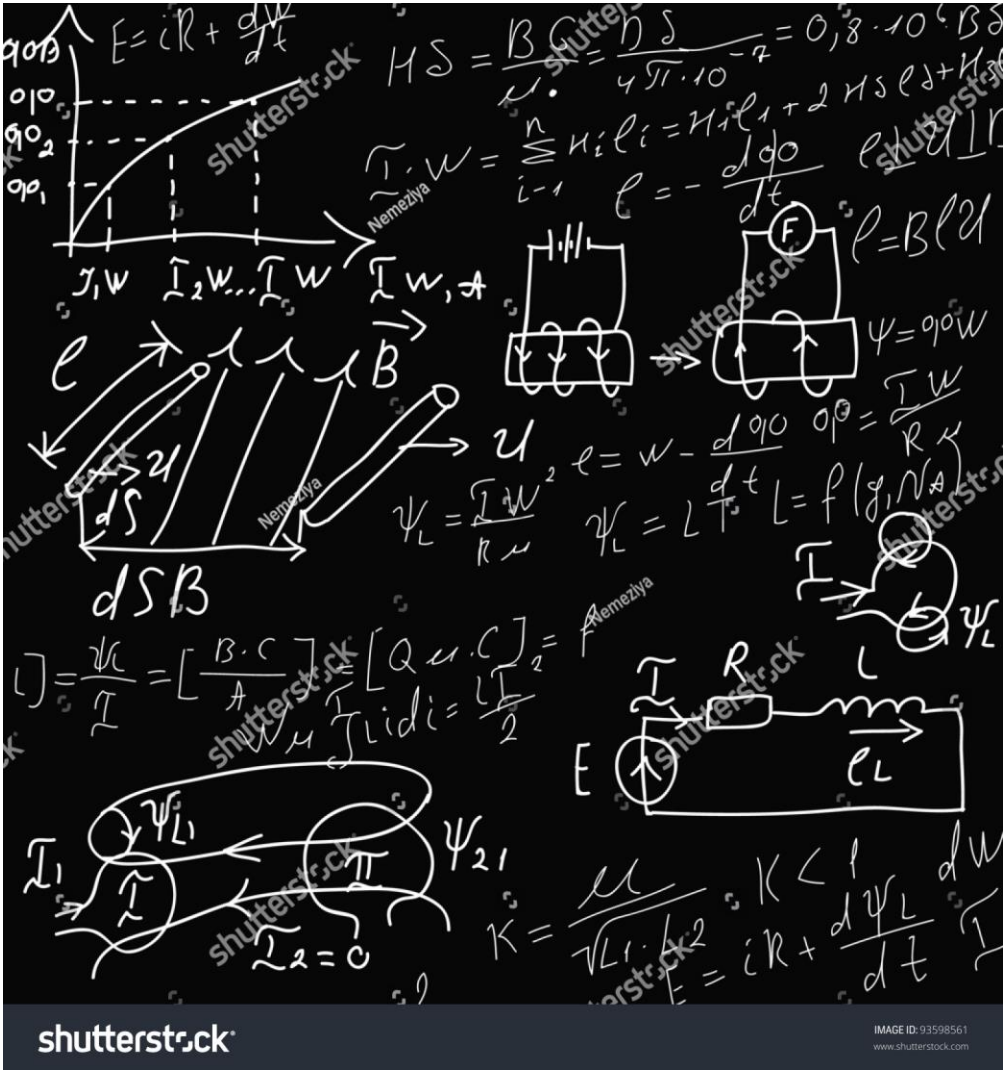


Tips, Tricks, and Pitfalls of Robotic Usage

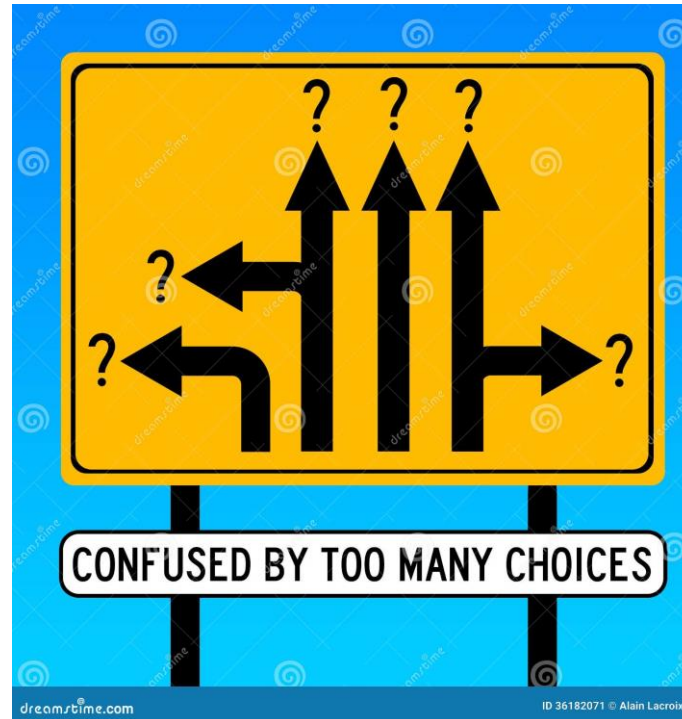
UCSF/HOI Meeting
Michael Hunter MD
Huntington Beach, CA
Sept, 2025

How Nonusers feel about Robotics



Robotic/Navigation Usage in TKA

- Expected to be 70% of TKAs in the US by 2030 (Khan et. al.)
- Many Different platforms all with advantages and disadvantages (image based vs. imageless, Saws/Burrs/ Balancing devices etc)



Start by Determining your goals

- Efficiency
- Preoperative planning
- Balancing Devices
- Implant Manufacturer
- Footprint
- Versatility



The Lineup



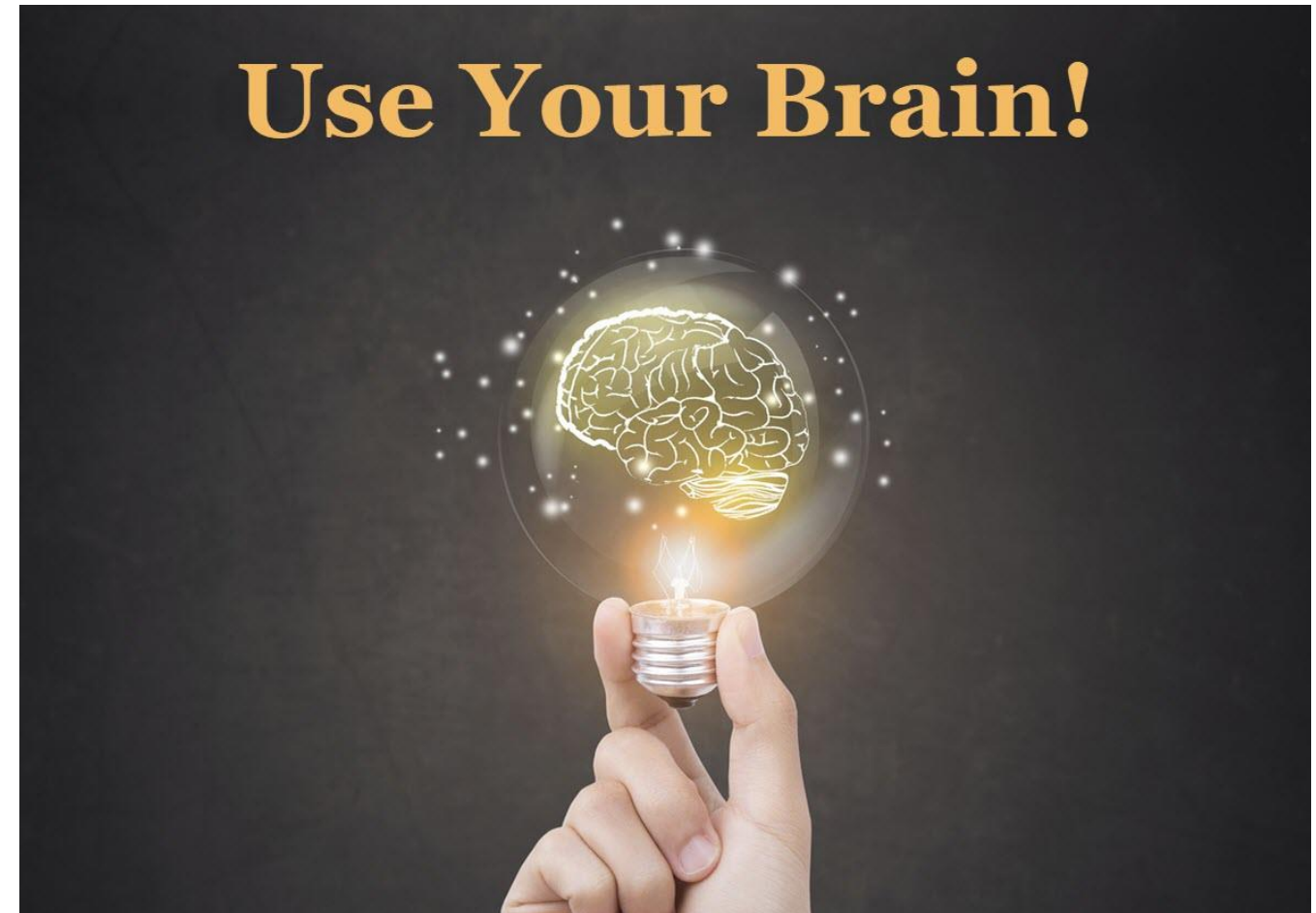
Tips

- Proper pin placement (revision cases can be different)
- Suboptimal position can make the case more challenging/frustrating
- Metaphyseal pins with lower fracture risk
- **BAD BONE= BAD IDEA FOR ROBOTICS**



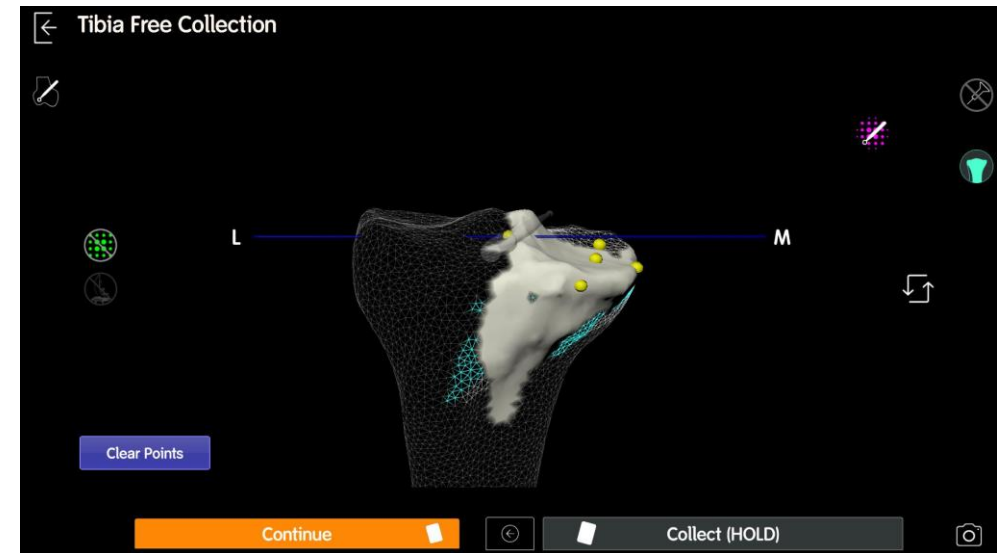
Tips

- Robots are NOT PERFECT!
- Double check critical steps
Throughout case
(femoral rotation/tib resection, etc)
- Trouble arises when the process
becomes passive
- Have a backup plan, maintain
Manual knee proficiency



Tips

- Registration points are essential (SLOW DOWN)
- -Garbage in = garbage out



Tips

- Relies on frequent estimation (don't be afraid to adjust your work flow)
- Start with easy cases that require less guesstimation



Tips

- Releases don't equal failure!
- They will still be required in restricted implant position parameters



Tips

- Give yourself ample time for the first several cases
- Efficiency comes with practice
- Shadow a fellow surgeon who is proficient in that system



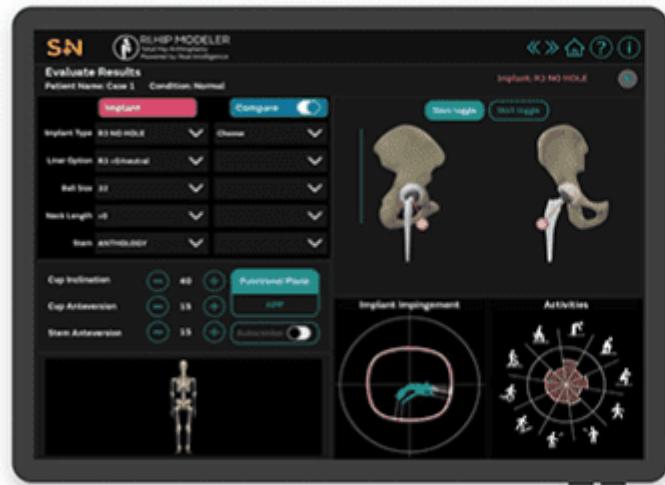
Robotic Usage for THA

- Becoming more and more popular
- Showing increased accuracy amongst posterior surgeons and developing revision technology



Tips for THA Usage

- Don't drape yourself out for iliac pin placement
- May need to have contralateral ASIS palpable
- Start with thin, easy anatomic patients



Tips for THA Usage

- Choose your system based off individual needs



Recap

- Robots are real and here to stay
- You still need to think and be a surgeon
- They aren't perfect
- Choose the system that works best for your individual goals
- Never be afraid to shadow, scrub, or ask questions from high volume users

Hoag
Orthopedic
Institute.