

Ashwin Patel's Journey Map



SCENARIO

Ashwin is an orthopedic surgeon at NYU Langone Health. He has been in practice for 10 years. On average, he completes 350 knee replacements a year using both technology-assisted and manual techniques. As a patient-centered surgeon, he's always looking for a way to improve knee surgeries by learning from his past ones.

EXPECTATIONS

- To complete surgery as fast as possible
- That the tool will be accurate and enhance his post-operative outcomes
- To help him build his skills as a knee surgeon

PRE-OP PLANNING

TECH SET-UP

SURGERY

POST OPERATION

ACTIONS

● Interview patient	● Input patient data	● Test patient's kinematics	● Compares and studies pre-surgery plan with post-operative results
● Execute and mark a general plan from X-Ray Scan	● Scan patient knee	● Match data input	
	● Install radar pins	● Drill in pins for cutting block	
	● Register bony landmarks	● Re-test patient's kinematics after bone-cut, and implant installment	
	● Predict soft tissue laxity		

OPPORTUNITIES

- To provide a detailed plan of what the surgery will look like
- Develop a surgical tool that has a faster set up
- Needs a surgical tool that helps him make more accurate bone cuts and produces reliable data
- Need a concise report to help them make better decisions in future knee surgeries



HAPPY



SAD

"Every patient's knee is different- loose/tightness of ligaments."

"The initial set up takes so much time... there's so many surgeries in a day, I wish I can have more time with my son..."

"The measurements doesn't make sense."

"I shouldn't have to fight the technology!"

"I wish there was a way to compare pre and post op data for further research"