



SkyWalker[®]

Robotic Platform Total Knee Application

PRODUCT BROCHURE

Compatible with Evolution[®] Medial Pivot Knee Implants

Introduction

The SkyWalker® Robotic Platform Total Knee Application is a semi-active technology solution designed to assist surgeons in performing TKA procedures by providing robotically located cutting planes based on the patient's anatomy and the surgeon's alignment preferences for the accurate placement of Evolution® Medial-Pivot Knee implants, a true Medial-Pivot design.

The SkyWalker® Robotic Platform Total Knee Application is a CT-based system that enhances planning capabilities by creating customized plans based on the surgeon's alignment preferences and the recreated patient-specific anatomy. Intraoperatively, the surgeon can modify the plan based on data insights, and the surgical execution is adaptable to each surgeon's workflow.

The surgeon can capture the pre-resection and post-resection gaps throughout the ROM. During bone resections, the robotic arm positions the cutting block to the planned resection plane, and the motion follow capability allows the cutting block to follow the leg when it moves while staying in the planned resection plane. The surgeon then uses a saw to complete the resections through the cutting block.

The SkyWalker® Robotic Platform is a technology solution part of our Evolution® Medial-Pivot Knee System, a suite of implants, approaches, and technologies aimed at restoring patients function and stability after TKA, centered around 3 key pillars to provide our surgeons and their patients with solutions that drive improved satisfaction and outcomes.



SkyWalker® Robotic Platform System Overview



ROBOTIC ARM CONSOLE

Cutting Block Tracker

Cutting Block

Base Tracker

Calibration Tracker

NAVIGATION CONSOLE

NDI Camera

Surgeon's Screen

Operator's Screen



Foot Pedal

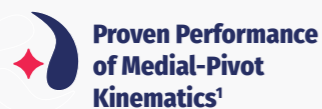


Cables



The Power of 3

The Evolution® Medial-Pivot Knee System provides orthopedic surgeons with a suite of innovative implants, approaches, and technologies aimed at restoring patients function and stability after TKA by replicating the natural kinematics of the knee, ultimately leading to improved patient satisfaction and outcomes.¹



1. Based on a retrospective study of Advance® Medial-Pivot. Macheras, G.A.; Galanakis, S.P.; Leptos, P.; Anastasopoulos, P.P.; Papadakis, S. A. A long term clinical outcome of the Medial Pivot Knee Arthroplasty System. The Knee 24 (2017): 447-453

COMBINING MEDIAL-PIVOT KINEMATICS WITH REAL-TIME GAP BALANCING AND INTRA-OP DATA OFFERS AN OPPORTUNITY FOR PROCEDURAL OPTIMIZATION FACILITATED BY THE SKYWALKER® ROBOTIC PLATFORM AIMING TO ELEVATE THE PATIENT CARE EXPERIENCE.

The Value of SkyWalker® Robotic Platform

TECHNOLOGY MEETS EXPERTISE

Data-driven execution aligns seamlessly with the surgeon's preference through SkyWalker® Robotic Platform's features, bringing innovation that follows the surgeon's lead.

- Dedicated team of experts providing pre-op planning management
- Dynamic Gap Balancing through real-time data
- Motion-Follow technology allows the cutting block to maintain the planned resection plane in the event of leg movement

CONFIDENCE THROUGH CUSTOMIZATION

Using the SkyWalker® Robotic Platform, surgeons unlock the power to make decisions in a more informed way tailored to both the patient and the surgeon.

- CT-based, patient-specific, enhanced planning capabilities
- Customizable workflow and planning based on the surgeon's preferences
- Intra-op assessment of alignment parameters and gaps

Paired with Evolution® Medial-Pivot Knee

UNMATCHED IN PERFORMANCE

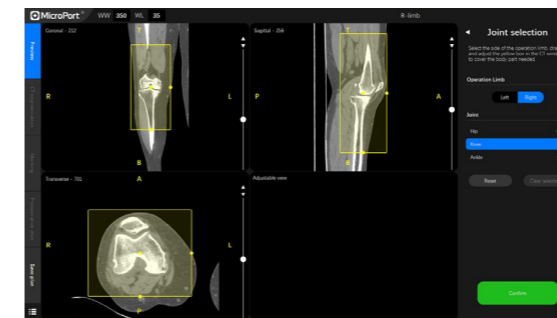
MicroPort Orthopedics couples the innovative robotics technology with what every other company is missing, the Evolution® Medial-Pivot Knee, a true Medial-Pivot implant design.

- Longevity in design - Celebrating 25 years of clinical success²
- Designed to replicate natural stability and motion¹
- 95% patient satisfaction¹ and 98.8% implant survivorship at 17 years²



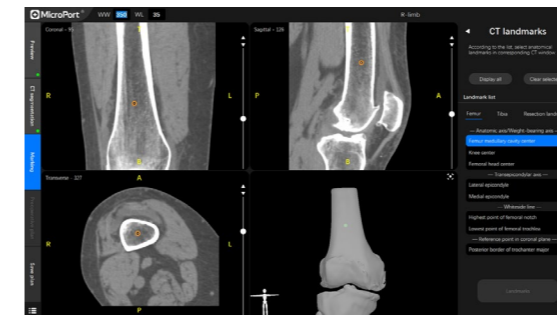
1. MPO data on file
 2. Based on a retrospective study of Advance® Medial-Pivot. Macheras, G.A.; Galanakis, S.P.; Leptos, P.; Anastasopoulos, P.P.; Papadakis, S. A. A long term clinical outcome of the Medial Pivot Knee Arthroplasty System. The Knee 24 (2017): 447-453

SkyWalker® Robotic Platform Workflow



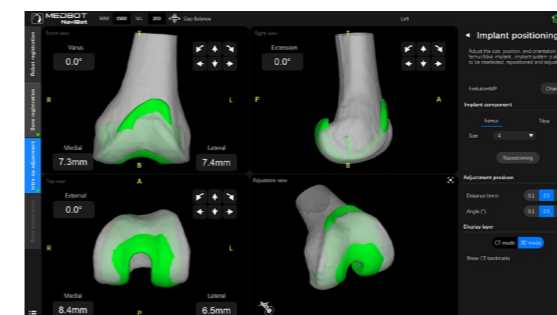
CT SCAN SEGMENTATION

- The process starts with a CT scan to get patient-specific data
- A 3D model is created based on the patient's anatomy



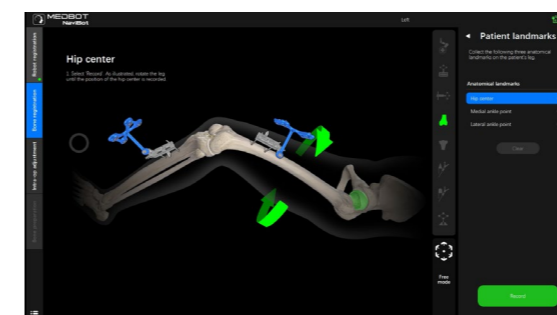
LANDMARK PLACEMENT

- Landmarks required for implant alignment are placed in the model



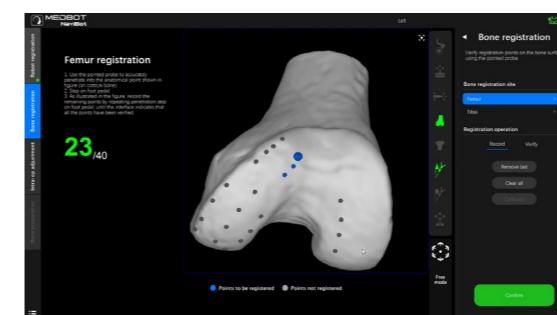
PREOPERATIVE PLANNING

- A customized plan is created based on each surgeon's preferences
- The patient's CT and 3D model can be visualized
- Implant sizing and placement are planned preoperatively



SYSTEM REGISTRATION & TRACKER'S INSTALLATION

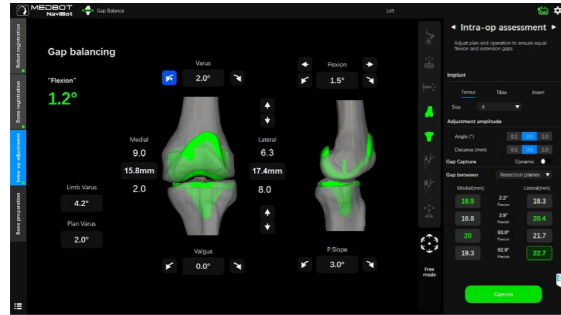
- Verification of the system & tracker's placement (pointed probe, blunted probe, base tracker, calibration tracker, cutting block tracker)



BONE REGISTRATION

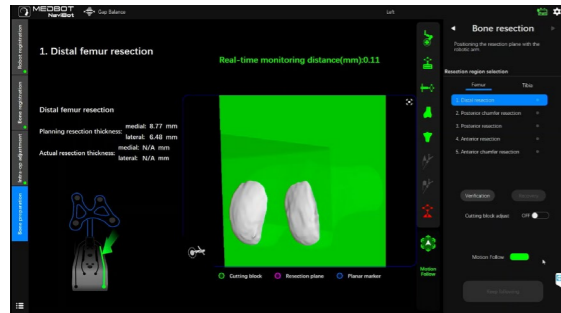
- Marries the CT scan, pre-op plan and patient-specific 3D model

SkyWalker® Robotic Platform Workflow



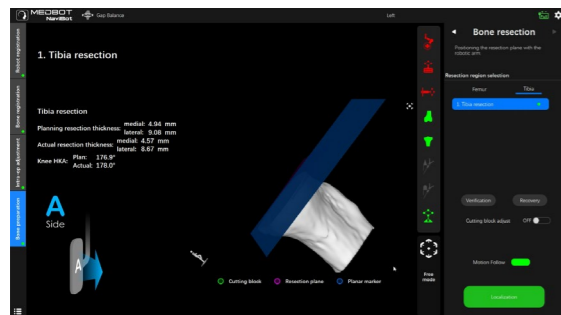
INTRA-OP ADJUSTMENTS & GAP BALANCING

- Customized plan can be modified intraoperatively according to the surgeon's preferences and patient's anatomy
- Data-driven intra-op capability allows the surgeon to capture the pre-resection gaps throughout the ROM



BONE RESECTION

- Robotically located cutting planes
- Motion Follow allows the cutting block to follow the leg during the resection while maintaining the planned resection plane



BONE RESECTION VERIFICATION

- Verify the resections using the plane probe
- Can be performed after every cut or after all cuts

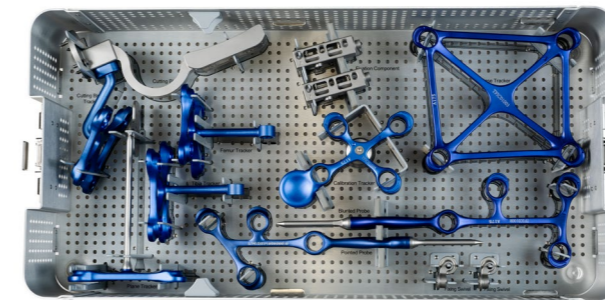


POST-RESECTION GAP BALANCING

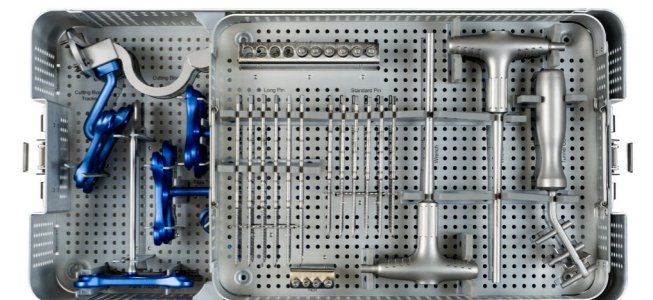
- Data-driven intra-op capability allows the surgeon to capture the post-resection gaps throughout the ROM

SkyWalker® Robotic Platform Instrumentation

SKYWALKER® ROBOTIC PLATFORM KNEE KIT

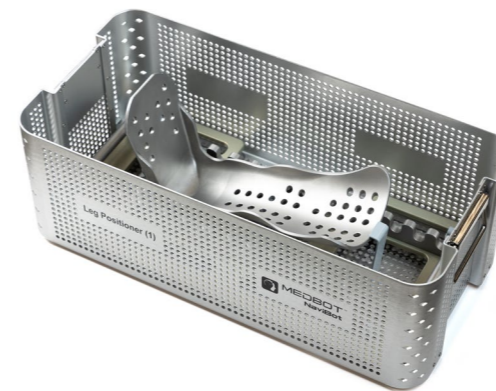


Bottom Tray



Top Tray

SKYWALKER® ROBOTIC PLATFORM FOOT HOLDER



SkyWalker® Robotic Platform Instrumentation



Base Tracker



Calibration Tracker



Pointed Probe



Blunted Probe



Femur Tracker



Tibia Tracker



Cutting Block & Tracker



Plane Probe



Tunnel Guide



Wrench (2)



Fixation Device (2)



Fixing Swivel (2)



Fixation Pins (6)

SkyWalker® Robotic Platform Total Knee Application Disposables

To order Disposables for SkyWalker® Surgical Robot please order through International Customer Service.

Single Case Requirements



STERILE DRAPE FOR SKYWALKER® ROBOTIC PLATFORM

Pack of 1 drape ————— 21420002



STERILE MARKERS FOR SKYWALKER® ROBOTIC PLATFORM

Box of 40 markers ————— 21411102



PINS & NAILS FOR SKYWALKER® ROBOTIC PLATFORM

STANDARD PINS ————— 21422202
Box quantity 60 non-sterile

LONG PINS ————— 21412302
Box quantity 60 non-sterile

CHECK NAILS ————— 21412102
Box quantity 40 non-sterile

IMAGES FOR REFERENCE ONLY
Note: Additional pins, nails and drapes can be purchased

Additional EVOLUTION® Ice Instruments Recommended

FEMORAL TRIAL PLACEMENT



EVOLUTION® IMPACTION HANDLE WITH MODULAR CONNECTION

E5005001CN



EVOLUTION® CS/CR FEMORAL HOLDER/DRIVER

E1005103CN



EVOLUTION® CR/CS FEMORAL TRIALS

E130XXXX



EVOLUTION® FEMORAL TRIAL FINISHING IMPACTOR WITH MODULAR CONNECTION

E1005101CN



EVOLUTION® FEMORAL TRIAL PEG DRILL

E1000301



EVOLUTION® FEMORAL PEG TOMMY BAR

E1051022



EVOLUTION® CS/CR SULCUS RESECTION GUIDE (FOR SIZES 1 OR 2)

E120100X



EVOLUTION® FEMORAL TRIAL PATELLA CAPS

E13050XX

TIBIA TRIAL PLACEMENT



EVOLUTION® TIBIA BASE TRIALS

E2302XXX



EVOLUTION® TIBIA BASE TRIAL HANDLE

E2001020



EVOLUTION® ROD 13 IN WITH QUICK DISCONNECT

E5001003CN



ADVANCE® TIBIAL BASE FIXATION PIN WITH TAPERED HEAD

K0002007



EVOLUTION® CS TRIAL INSERT

E3102XXX



EVOLUTION® TRIAL INSERT SPACERS

E340XXXX

ADDITIONAL USEFUL INSTRUMENTS



EVOLUTION® FLEXION/EXTENSION MODULAR SPACER BLOCK

E50017XXCN



EVOLUTION® FLEXION/EXTENSION BLOCKS 10MM

E50010XXCN



EVOLUTION® DUAL REFERENCE GAUGE "ANGEL WING"

E5001006



EVOLUTION® PATELLA CALIPER

E4001006CN

TIBIAL KEEL PREPARATION



EVOLUTION® SLAP HAMMER

E5002001CN



EXTRACTION BOSS

E5002002



EVOLUTION® SPIKE KEEL TOWER CEMENTED E2004028 OR CEMENTLESS E2004128



EVOLUTION® CEMENTED REAMER SIZE E20012XX OR CEMENTLESS E20011XX



EVOLUTION® KEEL LEAVE-IN MODULAR HANDLE

E2000001CN



EVOLUTION® MODULAR KEEL PUNCH CEMENTED E20052XX OR CEMENTLESS E20053XX

PATELLA PREPARATION



EVOLUTION® PATELLAR CLAMP STYLUS 6MM E4202002 OR 8MM E4202001



EVOLUTION® PATELLA RESECTION GUIDE CLAW STYLE E4202000



EVOLUTION® PATELLA 3 HOLE DRILL GUIDE E4201103



ADVANCE® PATELLA REAMER CLAMP ASSEMBLY K0031103



EVOLUTION® PATELLA TRI-PEG DRILL E4001035



EVOLUTION® PATELLA RECESSED IMPLANT SEATER E4001008



ADVANCE® ALL POLY PATELLA TRI-PEG KPTRTPXX

FINAL IMPLANTATION



EVOLUTION® TIBIAL BASE FINISH IMPACTOR WITH MODULAR CONNECTION E2005101CN



EVOLUTION® 45 DEGREE ANGLED INSERT IMPACTOR WITH MODULAR CONNECTION E3005101



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