

INTELLISENSE DRILL TECHNOLOGY®

BETTER ENGINEERING. BETTER PATIENT OUTCOMES.





GUESSWORK HAS NO PLACE IN THE OPERATING ROOM

Orthopedic surgeries can be complicated and full of risks. Surgeons are ill-equipped with outdated technology. Patients trust their surgeon. At McGinley Orthopedics, we want them to trust their tools as well. The existing orthopedic drills are less sophisticated than the drill you might have in your garage. They force surgeons to rely on "feel" to avoid plunging through the bone into the patient's blood vessels, nerves, tendons, organs, and other structures. This can result in patient injury or in post-operative complications.

OUR MISSION IS TO CHANGE THE STANDARD OF CARE WITH DISRUPTIVE TECHNOLOGY

Without sensors, software, real-time data recording, or artificial intelligence, surgeons have little insight or control over the depth of their hole. This can result in patient injury or in operative complications.

53%

OF SURGEONS SELF-REPORTED HAVING MEDICAL ERRORS IN THE LAST 6 MONTHS



OF SURGICAL SCREWS ARE IMPROPERLY INSTALLED WITH CONVENTIONAL DRILLS



Misplaced screw has traveled through the pedicle into the adjacent soft tissues.



Improper screw lengths. A repeat surgery may be needed to correct the screw lengths.

6.3mm

AVERAGE PLUNGE DEPTH



Depth gauge in the wrong location short of the far cortex, a broken drill bit and broken screws.

INTELLISENSE® HANDHELD ROBOTICS

PATIENTS TRUST THEIR SURGEONS, NOW THEY CAN TRUST THEIR TOOLS.

McGinley Orthopedics is on a mission to change the standard of care with IntelliSense[®] HandHeld Robotics which provide surgeons with greater insight, visibility, and control. Currently, surgeons rely on unsophisticated power tools and a sense of "feel" when performing orthopedic surgeries that can result in costly errors that can be dangerous or lead to long-term patient suffering.



TOUCH-SCREEN CONTROLLER

Clearly displays depth measurements and stores up to 17 hole depths. Used to change drilling modes. Features multiple modes including a depth-setting mode which allows the surgeon to choose a predetermined stop depth. Attaches to an IV pole in the O.R.



EDGE DETECTION

Lets surgeons know when they pass through any bony cortex and auto-stops on the far side of the second cortex. Multi-cortex mode allows surgeons to stop after predetermined cortex.



Integrated, proprietary In-Sight Surgical Lighting® directly illuminates the surgical field eliminating significant shadowing. It uses cool-running LED lights and has several modes for individual surgeon preferences.



DEPTH MEASUREMENT

Happens in real time, automatically telling the surgeon the depth of the drilled hole. Accurate to tenths of a mm.

AUTO-STOP

Incorporates sensor technology and an auto-stop feature to continuously monitor the drilling process, drill bit location and depth. Freehand mode disables sensing allowing surgeons to have full flexibility. This is also useful for educational purposes.

GAME CHANGING, COST \$AVING

Current depth-measurement practices are time consuming and can be inaccurate. Taking the depth gauge out of the process may add an additional surgery to the O.R.'s schedule each day.

\$1,850 SAVINGS PER SURGERY*



ELIMINATES MANUAL MEASUREMENTS

Real-time depth measurement eliminates need for manual measurement which wastes valuable O.R. time, reduces human error, and eliminates the need for radiation-based fluoroscopic imaging.

PREVENTS PLUNGING THROUGH CRITICAL STRUCTURES

Edge detection with auto-stop technology prevents plunging of drill bits and pins into soft tissues, organs, and critical structures.

DECREASES WASTED SCREWS

In an average orthopedic surgery requiring 10 screws, 1-2 screws will be wasted due to measurement error.

IMPROVES HARDWARE PLACEMENT

Errors from manual measurement may result in placement of long screws that protrude through bones or short screws that cause unstable hardware fixation. Placement of excessively long screws can rub or erode tissue causing pain or harm.

REDUCES COMPLICATIONS & LIABILITY

Safety features guard against accidental plunging and screw sizing errors that may lead to costly readmittance for corrective surgery or legal action.



ENGINEERING IS

McGinley Orthopedics strives to elevate the standard of care in orthopedics through better engineering.

Our mission is to improve patient safety through medical technology while simultaneously reducing costs.

McGinley Orthopedics has a proven record of success in the operating room. We're currently partnered with hospitals and universities across the country. Our technologies have been used in over 1,000 successful surgeries.

5 PRODUCTS ON THE MARKET

126* ISSUED & PENDING PATENTS

100+ TRAINED SURGEONS



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*McGinley Engineered Solutions, a fully owned subsidiary of McGinley Orthopedics, has 71 patent families including 104 issued patents and 22 pending patent applications