

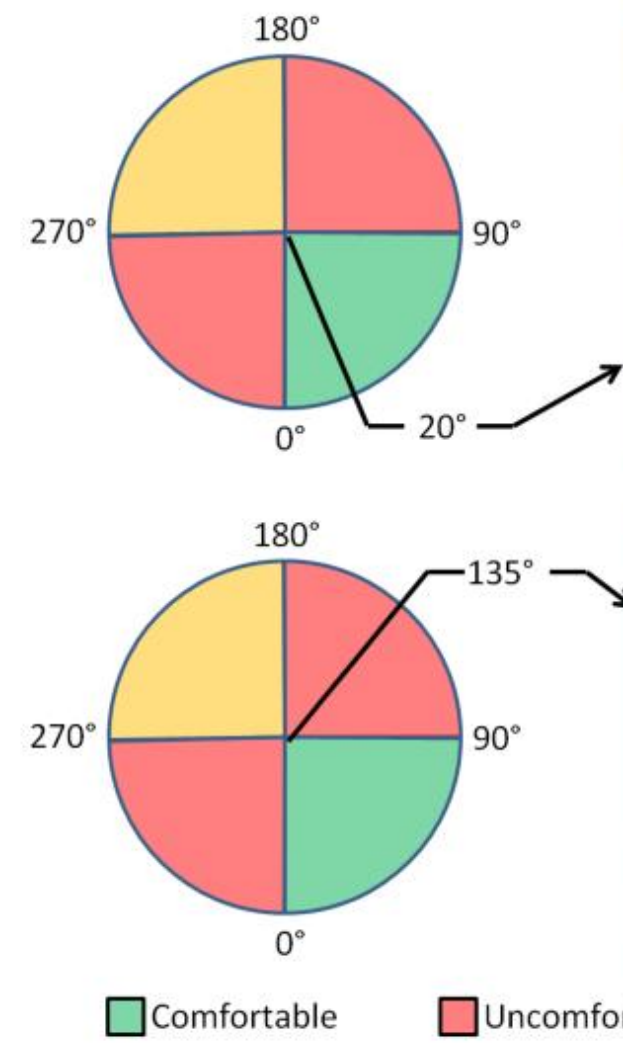
Resectoscope Working Element with Rotating Handle for More Ergonomic Surgery

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OPPORTUNITY

- Current transurethral resectoscopes’ resecting loops are fixed rotationally with respect to the instrument handle
- However, procedures often require rotating the resectoscope a full 360°
- Surgeons manipulate the handle by Switching to their non-dominant hand or Holding the handle upside-down
- This results in a grip that is unnatural, less precise and, potentially, less safe

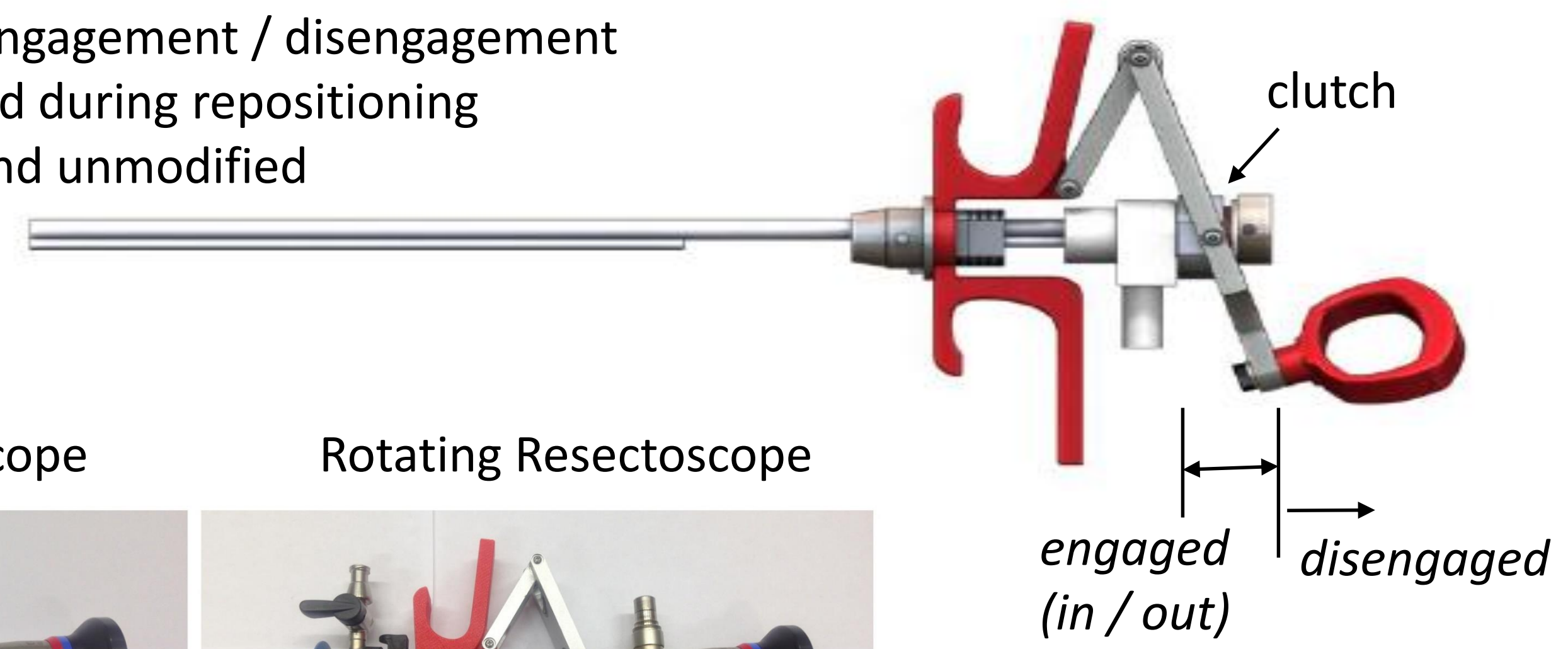


Comfortable /uncomfortable positions for right handed surgeon conducting TUR

Surgeons need a resectoscope that offers ergonomic control throughout a full 360° range of motion

PROPOSED SOLUTION

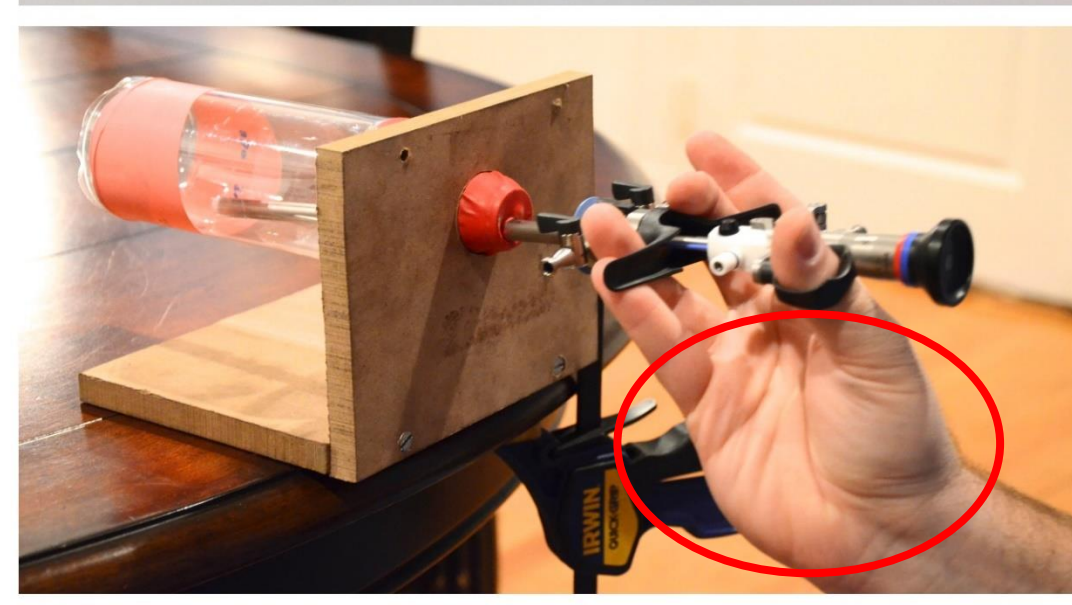
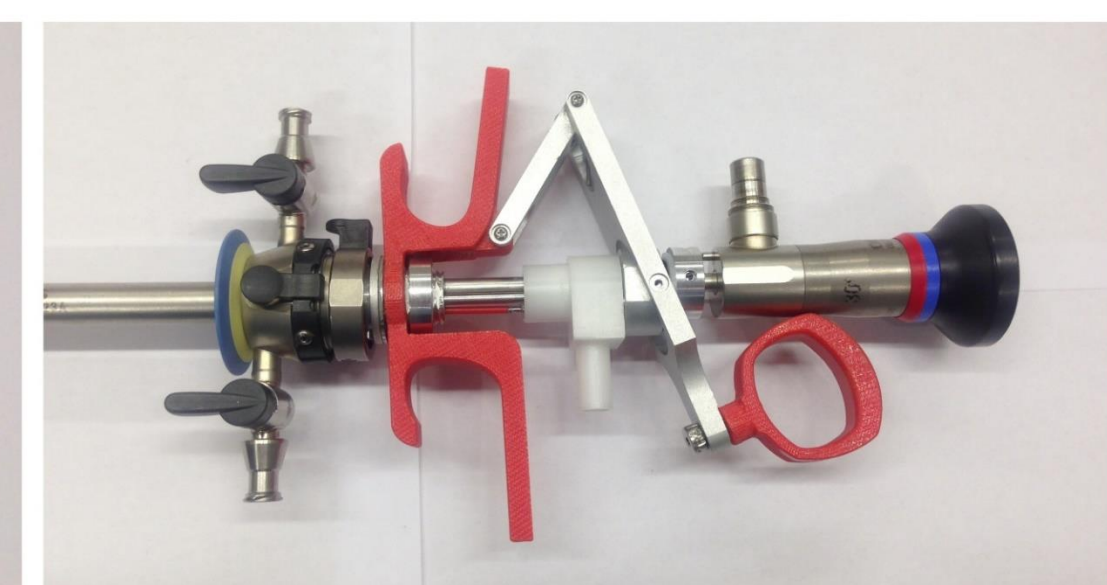
- Locking clutch a surgeon’s hand to remain in a comfortable working position throughout TUP surgery while resecting loop is freely rotated access a full 360° of bladder or prostate
- Intuitive thumb-based engagement / disengagement
- Electrode safely retracted during repositioning
- Scope remains mobile and unmodified
- Enables safe, intuitive, precise access



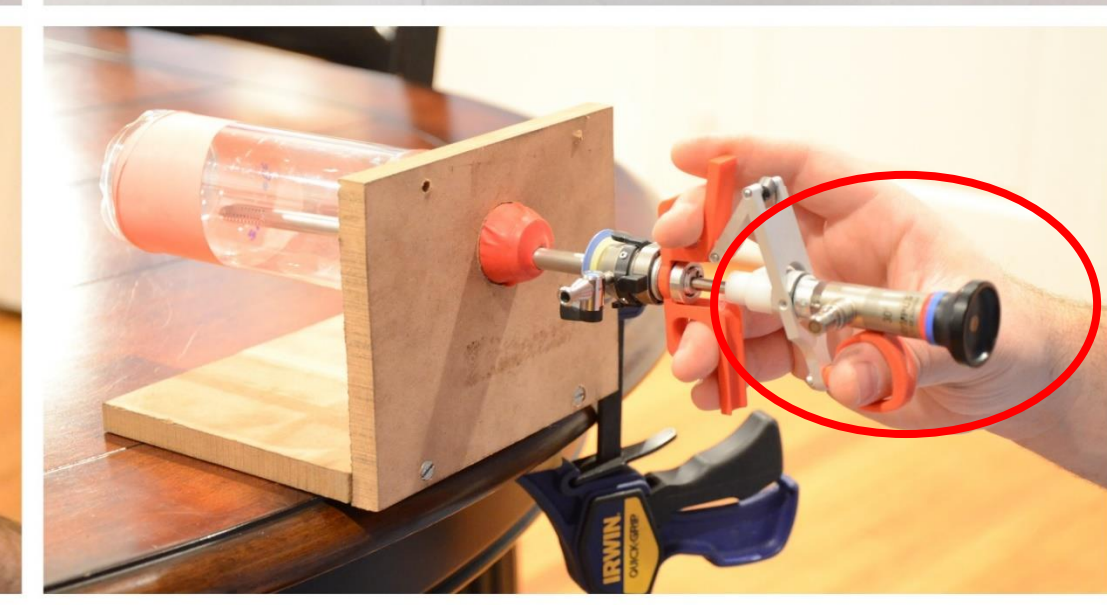
Standard Resectoscope



Rotating Resectoscope

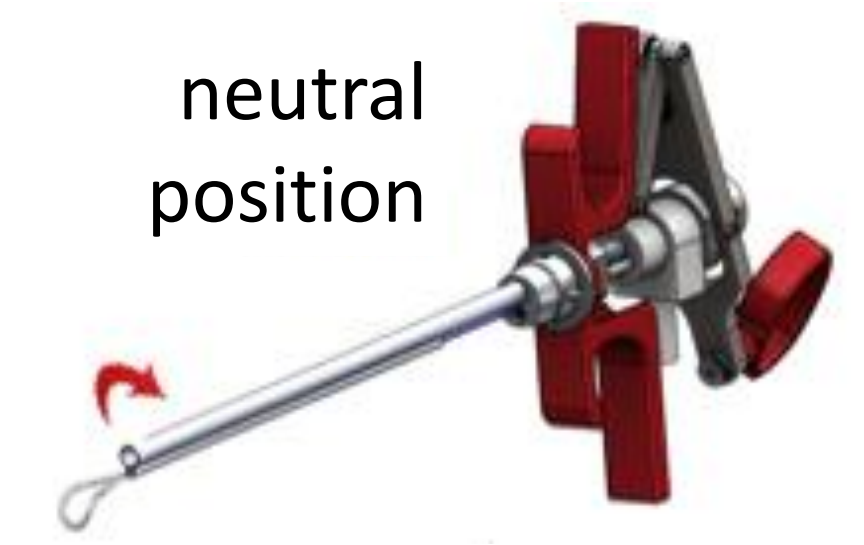


painful 90° wrist position



comfortable clutched position

Engaged – Loop locked rotationally, moves in/out
Disengaged – Pull thumb back, handle rotates freely



neutral position

EVALUATION

Three surgeons participated in an ex-vivo simulation comparing the device against the current state of the art.

1 completely disagree – 5 completely agree

Surgeon	A	B	C
I found the clutch easy to engage	5	5	5
I noticed increased comfort in the more difficult resection positions	5	5	5
I feel this device can increase patient safety	5	5	4
I would be willing to try this device in-vivo	5	5	5

CONCLUSIONS

Clutched resectoscope design has the potential to improve surgeons’ ergonomics, precision and procedural efficiency, while reducing the risk of surgical error and adverse outcomes in the over 150K transurethral resections performed annually in the US.

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