

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**P TECH, LLC,**  
*Appellant*

v.

**INTUITIVE SURGICAL, INC.,**  
*Appellee*

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2022-1102, 2022-1115

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Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2020-00649, IPR2020-00650.

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Decided: December 15, 2022

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ROBERT M. EVANS, JR., Lewis Rice LLC, St. Louis, MO, argued for appellant. Also represented by MICHAEL HENRY DURBIN, MICHAEL J. HARTLEY.

STEVEN KATZ, Fish & Richardson P.C., Boston, MA, argued for appellee. Also represented by RYAN PATRICK O'CONNOR, San Diego, CA.

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Before LOURIE, DYK, and CUNNINGHAM, *Circuit Judges*.

LOURIE, *Circuit Judge*.

P Tech, LLC (“P Tech”) appeals from two final written decisions of the U.S. Patent and Trademark Office Patent Trial and Appeal Board (“the Board”) collectively holding that claims 1 and 4 of U.S. Patent 9,192,395 and claims 1–20 of U.S. Patent 9,149,281 are unpatentable because they would have been obvious over the cited prior art. *P Tech, LLC v. Intuitive Surgical, Inc.*, No. IPR2020-00649 (P.T.A.B. Sept. 3, 2021) (“*395 Decision*”); *P Tech, LLC v. Intuitive Surgical, Inc.*, No. IPR2020-00650 (P.T.A.B. Sept. 8, 2021) (“*281 Decision*”). For the following reasons, we *affirm*.

#### BACKGROUND

This appeal pertains to two *inter partes* reviews (“IPRs”). Intuitive Surgical, Inc. (“Intuitive”) filed IPR petitions challenging claims in the ’395 and ’281 patents directed to robotic surgical systems for fastening body tissue. Representative claim 1 from each patent is presented below:

1. A robotic fastening system comprising:
  - a robotic mechanism including an adaptive arm configured to position a staple relative to a body portion of a patient;
  - a robotic arm interface configured to operate the adaptive arm of the robotic mechanism;
  - a staple having first and second legs;
  - a fastening member coupled to the adaptive arm, the fastening member having first and second force transmitting portions and configured to secure the body portion with the staple by applying a force from the first and second force

transmitting portions to move the first and second legs of the staple toward each other;

at least one of a position sensor configured to indicate a distance moved by the staple and a force measurement device configured to indicate a resistance required to move the staple relative to the body portion; and

a tissue retractor assembly coupled to the robotic mechanism, the tissue retractor assembly including a cannula configured to facilitate insertion of the fastening member through the cannula into a working space inside the patient.

'395 patent at col. 44 ll. 36–56.

1. A robotic system for engaging a fastener with a body tissue, the system comprising:

a robotic mechanism including an adaptive arm, the robotic mechanism configured to position a fastener relative to the body tissue, the robotic mechanism having first and second force transmitting portions configured to apply at least one of an axial force and a transverse force relative to the fastener;

a computer configured to control the robotic mechanism; and

an adaptive arm interface coupled to the adaptive arm and the computer, the adaptive arm interface configured to operate the computer,

wherein a magnitude of the at least one axial force and transverse force applied to the fastener is limited by the computer.

'281 patent at col. 44 ll. 44–59. The differences between these claims have not been argued as significant to this appeal. Therefore, they all stand or fall together.

The '281 patent also includes dependent claims that recite that the system further comprises a position sensor configured to indicate a distance moved by the fastener or staple. '281 patent at col. 45 ll. 6–7, col. 46 ll. 6–7. For the purposes of this appeal, only the position sensor recited in the '281 patent is relevant.

Both of Intuitive's petitions asserted obviousness of the challenged claims over U.S. Patent 6,331,181 ("Tierney") in view of other prior art references, including U.S. Patent 5,518,163 ("Hooven"). Tierney teaches robotic surgical systems comprising robotic arms to which surgical tools, including staplers, may be attached. Hooven teaches a hand-held endoscopic stapling and cutting instrument.

At the Board, with the exception of the claimed position sensor, P Tech did not dispute that the asserted prior art separately teaches the limitations of the challenged claims. '395 *Decision* at \*26; '281 *Decision* at \*29–30. Instead, P Tech focused its arguments in both proceedings on an asserted lack of motivation to combine Tierney with Hooven. *Id.* In particular, P Tech asserted that although the challenged claims did not require an articulable joint near the head of the stapling device, the cited art described benefits of such articulation. As the proposed combination seemingly lacked this articulable joint, a skilled artisan would have lacked motivation to combine the references. P Tech similarly asserted that the combined device would lack

other beneficial features, including providing force-feedback to the surgeon operating the device.

In both proceedings, after weighing the evidence, the Board found P Tech's arguments unpersuasive. '395 *Decision* at \*34–42; '281 *Decision* at \*30–37. The Board also rejected P Tech's challenges to Hooven's alleged disclosure of a position sensor. '281 *Decision* at \*37–38. The Board subsequently issued final written decisions holding that Intuitive met its burden to show by a preponderance of the evidence that the challenged claims were unpatentable as obvious in both proceedings. '395 *Decision* at \*48–49; '281 *Decision* at \*41–42.

P Tech appealed both final written decisions and we consolidated the appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

We review the Board's legal determinations de novo, *In re Elsner*, 381 F.3d 1125, 1127 (Fed. Cir. 2004), and the Board's factual findings for substantial evidence, *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). A finding is supported by substantial evidence if a reasonable mind might accept the evidence as adequate to support the finding. *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

#### I.

P Tech first contends that the Board erred as a matter of law in its motivation to combine analyses by improperly excluding, or otherwise ignoring, evidence in the record. P Tech next contends that the Board erred as a matter of law by resting its motivation to combine analyses on the claims of Tierney and on figures of a non-asserted reference, U.S. Patent 6,231,565 ("Tovey"). Third, P Tech contends that substantial evidence does not support the Board's findings of a motivation to combine. We address these challenges in turn.

## A

The parties agree that the claims of the '395 patent and the '281 patent do not require an articulating joint near the head of the claimed robotic surgical stapler. Both parties also agree that Intuitive's petitions did not assert, and therefore did not prove by a preponderance of the evidence, that such an articulating joint would have been obvious. But P Tech contends that the asserted prior art highlights the need for, or at least the benefit of, such a joint, and that because Intuitive's proposed combination lacked such a joint, a skilled artisan would not have been motivated to combine the references as Intuitive asserts. P Tech contends that, by improperly ignoring or excluding the prior arts' disclosures describing the benefit of this articulating joint, the Board erred in conducting its motivation to combine analyses.

Intuitive responds that the Board did not exclude any evidence. Instead, the Board properly weighed the evidence of record and then subsequently found that the lack of an articulable joint near the head of the proposed robotic surgical stapler would not dissuade a skilled artisan from making the proposed combination.

P Tech is correct that a motivation to combine analysis must account for "reasons not to combine," which are facts relevant to the overall consideration of obviousness. *See, e.g., Arctic Cat Inc. v. Bombardier Rec. Prods.*, 876 F.3d 1350, 1360 (Fed. Cir. 2017); *see also id.* at 1363 ("Evidence suggesting reasons to combine cannot be viewed in a vacuum apart from evidence suggesting reasons not to combine."). Thus, there may not be a motivation to combine where the combination would be inoperable, present undesirable qualities, *see In re Urbanski*, 809 F.3d 1237, 1243–44 (Fed. Cir. 2016), or be "unlikely to be productive of the result sought by the applicant," *Arctic Cat*, 876 F.3d at 1360 (citation omitted). The relevance of foregone, unclaimed benefits to the motivation-to-combine analysis is,

however, uncertain. *See Urbanski*, 809 F.3d at 1243. In any event, the Board did not exclude or ignore the evidence to which P Tech now points on appeal as supporting the inclusion of an articulable joint near the head of the stapler. Nor did the Board exclude or ignore evidence regarding other benefits of prior art devices, such as force-feedback, that are allegedly lacking in the device proposed by Intuitive. Instead, the Board expressly considered this evidence, along with P Tech's arguments, and found it insufficient to rebut Intuitive's showing of a motivation to combine. '395 *Decision* at \*34–42; '281 *Decision* at \*30–37.

In particular, the Board found that “even if Petitioner's proposed combination did result in some loss of a desired ‘dexterity and other advantages built into’” Tierney, “a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate a motivation to combine.” '395 *Decision* at \*41 (citing *Medi-chem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006)); '281 *Decision* at \*36 (same). The Board subsequently found that Intuitive had sufficiently proven a motivation to combine by “adequately establish[ing] that incorporating Hooven's handheld tool into Tierney's robotic system would have resulted in benefits including increased accuracy compared to manually operated instruments, and would have allowed the surgeon to use Tierney's robotic system throughout surgery, rather than having to switch to Hooven's handheld tool.” '395 *Decision* at \*41; '281 *Decision* at \*36.

P Tech further contends that the Board erred by not crediting its expert's testimony on motivation to combine because the expert was “not a surgeon.” Intuitive responds that the Board did not ignore this testimony simply because the expert was not a surgeon. Rather, the Board correctly noted that the expert did not support his assertions that a surgeon would be unable to properly position a stapler in many applications without this articulation with corroborating evidence. The Board therefore, in its

evaluation, decided to afford these unsupported assertions little weight.

We agree with Intuitive that the Board did not abuse its discretion in affording expert testimony regarding a lack of motivation to combine little weight after finding that the expert “d[id] not cite any evidence to corroborate [his] opinion.” *'395 Decision* at \*39–40; *'281 Decision* at \*34–35; see *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”).

Lastly, P Tech asserts that the Board abused its discretion by rejecting as untimely arguments that P Tech made in its sur-reply to further rebut motivation to combine, namely, that Intuitive’s proposed combination did not provide for rotation of the stapler. Intuitive responds that the Board did not abuse its discretion in finding that P Tech’s sur-reply arguments were untimely.

We agree with Intuitive. As the Board explained, “Petitioner presented the combination of Tierney and Hooven in the Petition, and thus Patent Owner could have, and should have, raised this argument in its Patent Owner Response.” *'395 Decision* at \*38 n.16 (citing 37 C.F.R. § 42.23(b) (“A sur-reply may only respond to arguments raised in the corresponding reply.”)); *'281 Decision* at \*33 n.4 (same). P Tech asserts that its sur-reply arguments were timely made in response to Intuitive’s reply arguments that the combined robotic system and stapler would “both continue to work as they always have.” But Intuitive made the same assertions in its petitions. Appx168, Appx257. Thus, it was not an abuse of discretion for the Board to deem these sections of P Tech’s sur-reply as untimely.



P Tech next contends that it was improper for the Board to look to the claims of Tierney while conducting its motivation to combine analyses to determine whether a skilled artisan would have understood that a robotic surgical stapler needed to articulate. P Tech also asserts that the Board similarly inappropriately relied on figures from an unasserted reference, Tovey, to support a conclusion that articulation of the stapler head was not required, and therefore lack of such articulation would not dissuade a skilled artisan from combining the asserted references.

Intuitive responds that the Board simply considered Tierney and Tovey as part of the totality of evidence. We agree with Intuitive that the Board did not err in assessing the claims of Tierney or the figures of Tovey as relevant to what the skilled artisan would have found desirable or necessary in a robotic surgical stapler.

### C

Finally, P Tech contends that the Board's motivation to combine analyses were not supported by substantial evidence. As discussed above in sections I.A–B, after weighing evidence based on expert testimony and numerous publications that the parties presented, the Board reached a factual finding that a motivation to combine Tierney with Hooven was supported by “benefits including increased accuracy compared to manually operated instruments,” as well as “allow[ing] the surgeon to use Tierney’s robotic system throughout surgery, rather than having to switch to Hooven’s handheld tool.” *'395 Decision* at \*41; *'281 Decision* at \*36. This assessment of the benefits, along with the assessment of potential downsides of the combination, provides sufficient evidence to support the Board's finding of a motivation to combine.

For the reasons set forth above, P Tech has not made a convincing case that the Board erred in finding a motivation to combine.

## II.

In an effort to argue that the position sensor limitation rescues dependent claims 8 and 16 of the '281 patent, P Tech further asserts that the Board incorrectly construed this term.<sup>1</sup> Claim 8 depends from claim 1, and recites that the system further comprises “a position sensor configured to indicate a distance moved by the fastener.” '281 patent at col. 45 ll. 6–8. Claim 16 recites the same (*id.* at col. 46 ll. 6–8), but depends from independent claim 10, which is reproduced below.

10. A robotic system for engaging a fastener with a body tissue, the system comprising:

a robotic mechanism including an adaptive arm, the robotic mechanism configured to position the fastener having first and second legs, the robotic mechanism having first and second force transmitting portions configured to apply at least one of an axial force and a transverse force to move the first and second legs toward each other;

a computer configured to control the robotic mechanism and limit a magnitude of the at least one axial force and transverse force; and

an adaptive arm interface coupled to the adaptive arm and the computer, the adaptive arm interface configured to operate the computer,

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<sup>1</sup> Although the term “position sensor” also appears in the claims of the '395 patent, P Tech did not appeal the Board’s assessment of “position sensor” in the '395 patent proceeding.

wherein the first and second legs are configured to engage the fastener with the body tissue.

'281 patent at col. 45 ll. 12–27. The differences between these claims have not been argued as significant to this appeal.

P Tech contends that the Board ignored undisputed expert testimony in construing “position sensor” and in finding that Hooven disclosed such a sensor by teaching an element of its device that “indicat[es] that [a] staple . . . has been moved the distance between its initial position inside the cartridge and its driven position,” along with sensors that “track the position of the staple.” *'281 Decision* at \*37–38. In particular, P Tech contends that the Board incorrectly identified Hooven’s contact 87 as such a sensor because: (1) it is not active during the formation of any staples; (2) its output is not a position but rather a binary indication of whether a firing nut has moved; and (3) it does not sense the distance moved by any fastener or staple.

Intuitive responds that, as P Tech frames its appeal as a question of claim construction, and neither the parties nor the Board construed “position sensor,” P Tech forfeited this argument. Intuitive also responds that even if this issue was not forfeited, the Board correctly rejected each of the three arguments that P Tech asserts in finding that Hooven discloses the claimed position sensor.

We agree that the parties did not argue for a construction of “position sensor,” and that the Board did not formally construe this term. P Tech’s assertion that the Board erred as a matter of law in construing this claim term is not the correct frame through which the Board’s analysis of position sensors should be reviewed on appeal. Properly presented, this is, instead, a question of whether the Board’s determination that Hooven renders obvious the claimed position sensor was supported by substantial evidence. We believe that it was. Indeed, the Board took

explicit notice of P Tech’s sensor arguments and explained why it found them unpersuasive. ’281 *Decision* at \*38. In particular, the Board held that it saw “nothing in the language of claims 8 and 16, nor have the parties pointed [] to anything in the Specification requiring the claimed position sensor to be ‘active during formation of any staples’” or “excluding determining the position of the staple by proxy.” *Id.* at \*38. We agree.

#### CONCLUSION

For the foregoing reasons, we *affirm* the Board’s final written decisions holding unpatentable the challenged claims in the ’395 and ’281 patents.

**AFFIRMED**