

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PARROT S.A., PARROT DRONES, S.A.S., and PARROT INC.,
Petitioners,

v.

QFO LABS, INC.,
Patent Owner.

Case IPR2017-01090
Patent 9,073,532 B2

Before MEREDITH C. PETRAVICK, HYUN J. JUNG, and
SCOTT C. MOORE, *Administrative Patent Judges*.

JUNG, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review

37 C.F.R. § 42.108

Dismissing Motion for Joinder

37 C.F.R. § 42.122(b)

I. INTRODUCTION

Parrot S.A., Parrot Drones S.A.S., and Parrot Inc. (“Petitioners”) filed a Petition (Paper 2, “Pet.”), requesting institution of an *inter partes* review of claims 1–7 and 15–24 of U.S. Patent No. 9,073,532 B2 (Ex. 1001, “the ’532 patent”). Petitioners also filed concurrently a Motion for Joinder that seeks joinder to Case IPR2016-01559. Paper 3. QFO Labs, Inc. (“Patent Owner”) timely filed a Preliminary Response¹ (Paper 7, “Prelim. Resp.”).

For the reasons below, based on the circumstances of this case, we exercise our discretion pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.108(a) to deny the Petition and, therefore, decline to institute an *inter partes* review. Because the Petition is denied, we also dismiss as moot Petitioners’ Motion for Joinder.

A. *The ’532 Patent (Ex. 1001)*

The ’532 patent relates to a “homeostatic flying hovercraft.” Ex. 1001, 1:20–25. Homeostatic flying craft 200 has upper surface 202, bottom surface 204, four duct openings 212, and battery-powered ducted fan 214 mounted inboard from each duct opening 212. *Id.* at 9:20–33. Each fan 214 is powered from an internal pair of batteries 216. *Id.* at 9:45–46. Homeostatic control system 300 is “operably connected to the thrusters . . . in order to maintain a desired orientation” and includes “XYZ sensor arrangement 302 and associated control circuitry 304 that dynamically determines an inertial gravitational reference.” *Id.* at 11:1–10.

¹ The Preliminary Response improperly contains arguments against Petitioners’ Motion for Joinder. *See* Prelim. Resp. 15–21; 37 C.F.R. § 42.6(3) (“Combined motions, oppositions, replies, or other combined documents are not permitted.”) and § 42.25(a)(1) (“An opposition is due one month after service of the motion.”).

A radio-controlled (“RC”) controller 220 “includes a body adapted to be held in one hand” and a “homeostatic control system IS positioned within the body.” *Id.* at 10:18–22. A user selectively positioning an orientation of RC controller 220 provides a “desired orientation.” *Id.* RC controller 220 includes a “bidirectional radio frequency (RF) transceiver providing two-way RF communications between the RC aircraft and the hand-held RC controller that communicates the desired orientation to the RC aircraft.” *Id.* at 10:26–30.

B. Illustrative Claim

The ’532 patent has 24 claims, of which Petitioners challenge claims 1–7 and 15–24. Of the challenged claims, claims 1, 15, and 21 are independent, and claim 1 is reproduced below:

1. A radio controlled (RC) flying hovercraft controlled by a handheld RC controller separate and remote from the RC flying hovercraft, the RC flying hovercraft comprising:

a set of thrusters, each thruster including at least one blade driven by an electrically powered motor, that provide aerodynamic lift for the RC flying hovercraft;

a battery system positioned in the flying hovercraft and electrically coupled to the set of thrusters;

a homeostatic control system positioned in the RC flying hovercraft and operably connected to the thrusters that automatically controls a thrust produced by each thruster in order to automatically maintain a desired orientation of the RC flying hovercraft, the homeostatic control system including at least a three dimensional, three-axis sensor system and associated control circuitry that dynamically determines a gravitational reference other than by dead reckoning alone for use by the homeostatic control system in automatic control of said thrusters to maintain homeostatic stabilization in the desired orientation; and

a radio frequency (RF) receiver positioned in the RC flying hovercraft and adapted to receive communications from the RC controller, the communications including the desired orientation of the RC flying hovercraft used by the homeostatic control system to

automatically control the thrusters to maintain the desired orientation, wherein the desired orientation communicated by the RC controller is determined based on a handheld structure housing a sensor system in the RC controller that senses at least a two dimensional, two-axis sensed orientation of the handheld structure as a result of a user remote from the RC flying hovercraft selectively orienting the handheld structure,

whereby an actual moment-to-moment orientation of the RC flying hovercraft mimics a corresponding moment-to-moment positioning of the RC controller based on the two dimensional, two-axis sensed orientation of the RC controller.

C. Asserted Grounds

Petitioners challenge, under 35 U.S.C. § 103, the claims as follows:

References	Claims Challenged
Louvel ² , Thomas ³ , Jimenez ⁴ , and Kroo ⁵	1–5, 7, 15–19, 21–23
Louvel, Thomas, Jimenez, Yavnai ⁶ , and Kroo	3, 4, 7, 17, and 18
Louvel, Thomas, Jimenez, Gabai ⁷ , and Kroo	6, 20, and 24
Louvel, Thomas, Jimenez, and Admitted Prior Art ⁸	1–5, 7, 15–19, and 21–23
Louvel, Thomas, Jimenez, Yavnai, and Admitted Prior Art	3, 4, 7, 17, and 18
Louvel, Thomas, Jimenez, Gabai, and Admitted Prior Art	6, 20, and 24

² US 2002/0104921 A1, published Aug. 8, 2002 (Ex. 1004).

³ US 5,128,671, iss. July 7, 1992 (Ex. 1005).

⁴ US 2002/0106966 A1, published Aug. 8, 2002 (Ex. 1007).

⁵ I. Kroo & P. Kunz, “Mesoscale Flight and Miniature Rotorcraft Development,” Fixed and Flapping Wing Aerodynamics for Micro Air Vehicle Applications (Thomas J. Mueller ed., 2001) (Ex. 1006).

⁶ US 6,588,701 B2, iss. July 8, 2003 (Ex. 1009).

⁷ US 2001/0021669 A1, published Sept. 13, 2001 (Ex. 1008).

⁸ Ex. 1001, 3:49–57, 4:31–39. *See* Pet. 74 (quoting these portions).

References	Claims Challenged
Louvel, Thomas, and Jimenez	1–5, 7, 15–19, and 21–23
Louvel, Thomas, Jimenez, and Yavnai	3, 4, 7, 17, and 18
Louvel, Thomas, Jimenez, and Gabai	6, 20, and 24

Pet. 18–19.

D. Related Proceedings

The parties indicate that the '532 patent is a continuation of the patent at issue in Cases IPR2016-01550 and IPR2017-01089. Pet. 87–88; Paper 5, 1–2; Prelim. Resp. 4, 9.

Patent Owner also indicates that the '532 patent is involved in *Parrot S.A. v. QFO Labs, Inc.*, case 1:16-cv-00682-GMS (D. Del.) and *QFO Labs, Inc. v. Brookstone Stores, Inc.*, case 0:17-cv-01100-JNE-SR (D. Minn.). Paper 5, 4–5; Prelim. Resp. 8–9; Ex. 2014; *see also* Pet. 88 (indicating intent to file an action in the District of Delaware).

Additionally, the '532 patent was the subject of a petition filed by Petitioners in Case IPR2016-01559 (“the '1559 proceeding”). Pet. 1; Paper 5, 1–2; Prelim. Resp. 9. In the '1559 proceeding, Petitioners challenged:

- (1) claims 1–5, 7–12, 14–19, and 21–23 as unpatentable over Louvel, Thomas, and Jimenez;
- (2) claims 3, 4, 7, 10, 11, 17, and 18 as unpatentable over Louvel, Thomas, Jimenez, and Yavnai;
- (3) claims 6, 13, 20, and 24 as unpatentable over Louvel, Thomas, Jimenez, and Gabai;

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