UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 12b-25

NOTIFICATION OF LATE FILING

(Check one): □ Form 10-K □ Form 20-F □ Form 11-K ⊠ Form 10-Q □ Form 10-D □ Form N-CEN □ Form N-CSR For Period Ended: June 30, 2024

> □ Transition Report on Form 10-K □ Transition Report on Form 20-F □ Transition Report on Form 11-K □ Transition Report on Form 10-Q For the Transition Period Ended:

> > Read Instruction (on back page) Before Preparing Form. Please Print or Type. Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I - REGISTRANT INFORMATION

Firefly Neuroscience, Inc. Full Name of Registrant

WaveDancer, Inc. Former Name if Applicable

1100 Military Road Address of Principal Executive Office (Street and Number)

Kenmore, NY 14217 City, State and Zip Code

PART II - RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

(a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense

- (b)The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-CEN or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
 - (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III – NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-CEN, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

Firefly Neuroscience, Inc., formerly known as WaveDancer, Inc. (the "Company") is unable to complete its Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 (the "Quarterly Report"), with the Securities and Exchange Commission prior to the filing deadline for the Quarterly Report without unreasonable effort and expense. On August 12, 2024, the Company consummated its previously announced reverse merger transaction (the "Merger"). Due to the timing of the Merger, the Company requires additional time to prepare the Form 10-Q.

The Company expects to file the Quarterly Report within the extension period of five calendar days as provided under Rule 12b-25 under the Securities Exchange Act of 1934, as amended.

PART IV - OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Jon Olsen	(888)	237-6412
(Name)	(Area Code)	(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).

Yes 🗵 No 🗆

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

Yes 🗆 No 🗵

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

<u>Firefly Neuroscience, Inc.</u> (Name of registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

By: Name: August 14, 2024 /s/ Jon Olsen Jon Olsen Date: Chief Executive Officer Title:

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).