

FORM 4

[] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

OMB APPROVAL
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or
Section 30(h) of the Investment Company Act of 1940

| | | |
|--|---|---|
| 1. Name and Address of Reporting Person * Mears Robert J (Last) (First) (Middle) C/O ATOMERA, INC., 750 UNIVERSITY AVENUE, SUITE 280 (Street) LOS GATOS, CA 95032 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol Atomera Inc [ATOM] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Chief Technology Officer |
| 3. Date of Earliest Transaction (MM/DD/YYYY) <p align="center">9/1/2021</p> | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person |
| 4. If Amendment, Date Original Filed (MM/DD/YYYY) | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Trans. Date | 2A. Deemed Execution Date, if any | 3. Trans. Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|----------------|-----------------------------------|---------------------------|---|---|------------|---------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 9/1/2021 | | S | | 2076 (1) | D | \$24.40 | 121992 | D | |
| Common Stock | 9/1/2021 | | M | | 10000 (3) | A | \$7.01 | 131992 | D | |
| Common Stock | 9/1/2021 | | S | | 10000 (2) | D | \$24.18 | 121992 | D | |
| Common Stock | 9/2/2021 | | S | | 2800 (2) | D | \$24.50 | 119122 | D | |
| Common Stock | | | | | | | | 2666 | I | By Spouse |

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivate Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Trans. Date | 3A. Deemed Execution Date, if any | 4. Trans. Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|----------------|-----------------------------------|---------------------------|---|--|-----------|---|-----------------|---|----------------------------|--|--|--|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock Options (Right to Buy) | \$7.01 | 9/1/2021 | | M | | | 10000 (3) | 9/1/2017 | 3/20/2027 | Common Stock | 10000 | \$0 | 110843 | D | |

Explanation of Responses:

- (1) Represents the number of shares sold by the Reporting Person to cover tax withholding obligations in connection with the vesting of restricted stock grants that were previously reported. This sale is to satisfy mandatory non-discretionary tax withholding obligations by a "sell to cover" transaction.
- (2) The sale reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person.
- (3) The option exercise reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person and exercised from a previously reported total.

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Mears Robert J C/O ATOMERA, INC. 750 UNIVERSITY AVENUE, SUITE 280 LOS GATOS, CA 95032 | | | Chief Technology Officer | |

Signatures

/s/ Robert J. Mears, by Mindi Zimmer, as Attorney-in-Fact

9/3/2021

**Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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