

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable Charles E. Bullock
Chief Administrative Law Judge

In the Matter of

**CERTAIN AUDIO PLAYERS AND
CONTROLLERS, COMPONENTS
THEREOF, AND PRODUCTS
CONTAINING SAME**

Investigation No. 337-TA-1191

**COMPLAINANT SONOS, INC.'S MOTION FOR SUMMARY DETERMINATION
THAT THE ECONOMIC PRONG OF DOMESTIC INDUSTRY IS SATISFIED**

Pursuant to Commission Rule 210.18, 19 C.F.R. § 210.18, and Ground Rule 3.3, Complainant Sonos, Inc. (“Sonos”) moves for a summary determination that the economic prong is satisfied for all asserted patents under 19 U.S.C. § 1337(a)(2) and (3)(A)-(B). Sonos supports this motion with the accompanying Memorandum of Points and Authorities, Statement of Undisputed Material Facts, and supporting declaration and exhibits. These documents show that there is no genuine issue as to any material fact and that Sonos is entitled to a summary determination on the economic prong as a matter of law.

To be clear, Sonos moves only with respect to the economic prong of domestic industry and not as to any other issue in this investigation.

Ground Rule 3.2 Certification

Sonos certifies that it made reasonable, good-faith efforts to resolve the subject matter of this motion with Respondent Google LLC (“Google”) and the Commission Investigative Staff (“Staff”) at least two business days prior to filing this motion. Specifically, Sonos informed

Google and Staff on October 26 that it intended to file this motion. All parties met and conferred about this motion on October 30. Sonos provided Google and Staff with a draft of its Statement of Undisputed Material Facts on November 4. Google does not oppose the motion. Staff may take a position on the papers.

Dated: December 4, 2020

Respectfully submitted,

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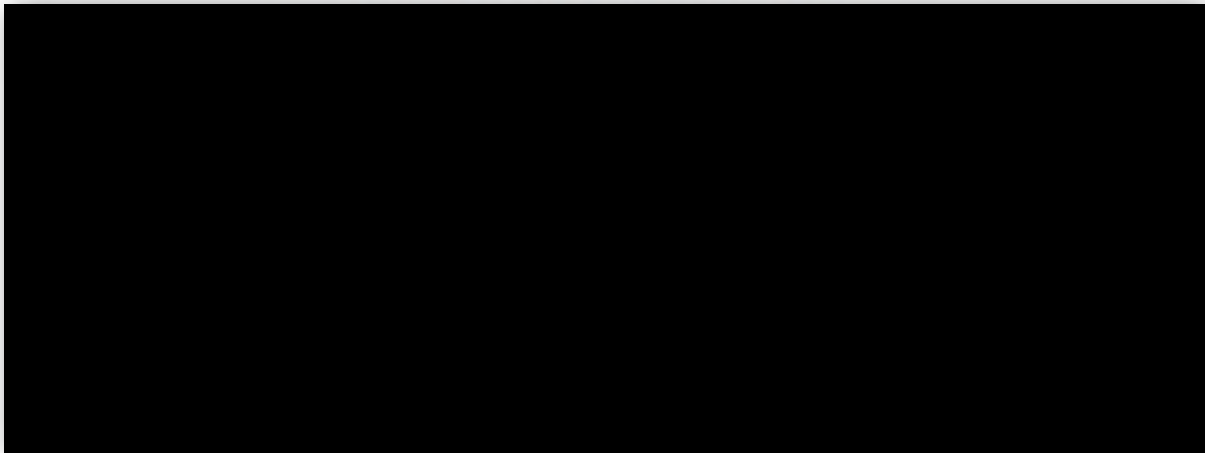
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Complainant Sonos, Inc. (“Sonos”) respectfully submits this Memorandum of Points and Authorities in Support of Its Motion for Summary Determination that the Economic Prong of Domestic Industry Is Satisfied as to All Patents under section 337(a)(3)(A)-(B).

I. INTRODUCTION

There is no genuine dispute—indeed, perhaps no dispute at all—that Sonos satisfies the economic prong of the domestic industry requirement as to all five Asserted Patents. Sonos is an American company, founded in Santa Barbara, California. Through the work of hundreds of engineers in five facilities across the United States, Sonos has researched, designed, and developed from the board up market-leading wireless speakers and the applications that control them. These products would not exist but for the investments Sonos has made in the United States. Sonos has invested [REDACTED] dollars over the last five years solely in the research and development of products that practice the Asserted Patents. These domestic industry investments are summarized in the following table:



The Chief ALJ could find that Sonos satisfies the economic prong under section 337(a)(3)(B) alone due to Sonos’s almost [REDACTED] investment in labor over the last five

years. But, Sonos also satisfies the economic prong under section 337(a)(3)(A) due to the millions of dollars it has invested in plants and equipment allocable to the DI Products.

As explained below, Sonos presents a highly conservative accounting of its domestic industry, because it relies only on research, development and engineering in new product development and product refreshes and not on the [REDACTED] Sonos has spent over the same time period to incubate new products and sustain existing products. Sonos has also relied only on cost centers that are dedicated to R&D even though it could have counted investments in other cost centers that do a significant amount of R&D and engineering but are not dedicated to that work.

Sonos could be conservative in its domestic industry calculations, because its investments are quantitatively significant by any measure. For example, Sonos's almost [REDACTED] investment in domestic R&D labor directed to the DI Products is more than [REDACTED] times the [REDACTED] Sonos spent outside the United States on R&D labor. Sonos's investment of over [REDACTED] in rent expenditures on domestic facilities allocable to the DI Products is [REDACTED] times the [REDACTED] Sonos spent outside the United States on rent expenditures allocable to R&D on the DI Products. Sonos's investment of [REDACTED] in acquiring U.S. R&D equipment allocable to the DI Products is more than [REDACTED] times the [REDACTED] Sonos invested outside the United States in acquiring R&D equipment allocable to the DI Products.

II. LEGAL STANDARDS

A. Legal Standard for Summary Determination

“Any party may move with any necessary supporting affidavits for a summary determination in [its] favor upon all or any part of the issues to be determined in the investigation.” 19 C.F.R. § 210.18(a). Summary determination is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to a determination as a

matter of law. *See id.* § 210.18(b). The party moving for summary determination bears the initial burden of establishing that there is an absence of a genuine issue of material fact and that it is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

If the movant satisfies its initial burden, the burden then shifts to the non-movant to demonstrate specific facts showing that there is a genuine issue for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986). The non-moving party “has the burden to submit more than averments in pleadings or allegations in legal memoranda. Mere denials or conclusory statements are insufficient.” *Certain Magnetic Response Injection Sys. & Components Thereof*, Inv. No. 337-TA-434, Order No. 16 at 5 (Sept. 26, 2000) (citations omitted) (“*Injection Systems*”). This means the “[the non-moving party] must do more than simply show there is some metaphysical doubt as to the material facts” to avoid summary determination. *Certain Elec. Devices, Including Mobile Phones, Portable Music Players, & Computers*, Inv. No. 337-TA-701, Order No. 58 at 4, 10, 15 (quoting *Matsushita Elec. Indus. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986)) (“*Electronic Devices*”).

Summary determination should therefore be granted when a hearing on the matter at issue would serve no useful purpose and the movant is entitled to judgment as a matter of law. *See Certain Recombinant Erythropoietin*, Inv. No. 337-TA-281, Initial Determination at 70, Pub. No. 2186 (Jan. 10, 1989).

B. Legal Standard for Domestic Industry

To prove that a violation of Section 337 has occurred, a complainant must show that an industry exists in the United States relating to articles protected by the patent. 19 U.S.C. § 1337(a)(2). The domestic industry requirement consists of a technical prong and an economic prong.

The technical prong of the domestic industry requirement is satisfied when the complainant in a patent-based section 337 investigation establishes that it is practicing or exploiting the patent at issue. *See* 19 U.S.C. § 1337(a)(2), (3); *Certain Microsphere Adhesives, Process for Making Same and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 8, 1996 WL 1056095 (Jan. 16, 1996) (“Microsphere Adhesives”). “The test for satisfying the ‘technical prong’ of the industry requirement is essentially [the] same as that for infringement, *i.e.*, a comparison of domestic products to the asserted claims.” *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003); *see also Certain Polyimide Films, Products Containing Same, and Related Methods*, Inv. No. 337-TA-772, 2012 WL 13171648, Comm’n Op. at *10 (Nov. 21, 2012) (citing *Alloc*, 342 F.3d at 1375). It is sufficient to show that the domestic products practice any valid claim of a patent, not necessarily an asserted claim of that patent. *Microsphere Adhesives*, Comm’n Op. at 7-16.

Section 337(a)(3) sets forth the following criteria for determining whether the economic prong is satisfied:

- (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent . . . concerned —
 - (A) significant investment in plant and equipment;
 - (B) significant employment of labor or capital; or
 - (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

Id. § 1337(a)(3). Given that these criteria are listed in the disjunctive, satisfaction of any one of them will be sufficient to meet the economic prong of the domestic industry requirement.

Certain Integrated Circuit Chipsets and Prods. Containing Same, Inv. No. 337-TA-428, Order No. 10, Initial Determination (May 4, 2000) (unreviewed).

Section 337 requires a quantitative analysis of the significance of complainant's domestic industry investments. See *Lelo Inc. v. Int'l Trade Comm'n*, 786 F.3d 879, 883-85 (Fed. Cir. 2015). Whether investment activities are significant "is not evaluated according to any rigid mathematical formula," but rather "entails an examination of the facts in each investigation, the article of commerce, and the realities of the marketplace." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011) ("*Printing Devices*") (internal quotation marks omitted). The Commission has utilized a number of factors and approaches to make this determination, including comparing complainant's domestic expenditures to its foreign expenditures. *Id.* at 27-28.

III. THE ASSERTED PATENTS

Sonos has asserted the following five patents in this investigation¹:

U.S. Patent No. 9,195,258 (the "'258 Patent") is entitled "System And Method For Synchronizing Operations Among A Plurality Of Independently Clocked Digital Data Processing Devices." The '258 Patent relates generally to devices, systems, and methods for synchronizing audio playback among a group of zone players.

U.S. Patent No. 10,209,953 (the "'953 Patent") is entitled "Playback Device." The '953 Patent is related to the '258 Patent and the patents share essentially the same specification. The '953 Patent, however, is directed to functions performed by a zone player that has been designated as a "slave" zone player of a synchrony group. In this respect, the '953 Patent is directed to a zone player that, while operating as a slave of a synchrony group, receives

¹ SUMF 1.

particular information over a data network from a zone player designated as the master of the synchrony group.

U.S. Patent No. 8,588,949 (the “’949 Patent”) is entitled “Method And Apparatus For Adjusting Volume Levels In A Multi-Zone System.” The ’949 Patent relates to a controller capable of controlling zone players in a networked audio system via a local data network.

U.S. Patent No. 9,219,959 (the “’959 Patent”) is entitled “Multi-Channel Pairing In A Media System.” The ’959 Patent relates generally to devices and methods for providing audio in a multi-channel listening environment (*e.g.*, a stereo sound or home theater surround sound environment).

U.S. Patent No. 10,439,896 (the “’896 Patent”) is entitled “Playback Device Connection.” The ’896 Patent is directed to a computing device comprising a graphical user interface (GUI) associated with an application that is configured to facilitate setting up a playback device to operate on a secure wireless local area network (WLAN).

IV. SUMMARY OF SONOS AND THE DOMESTIC INDUSTRY PRODUCTS

A. Sonos’s Investments in R&D Fuel Its Success

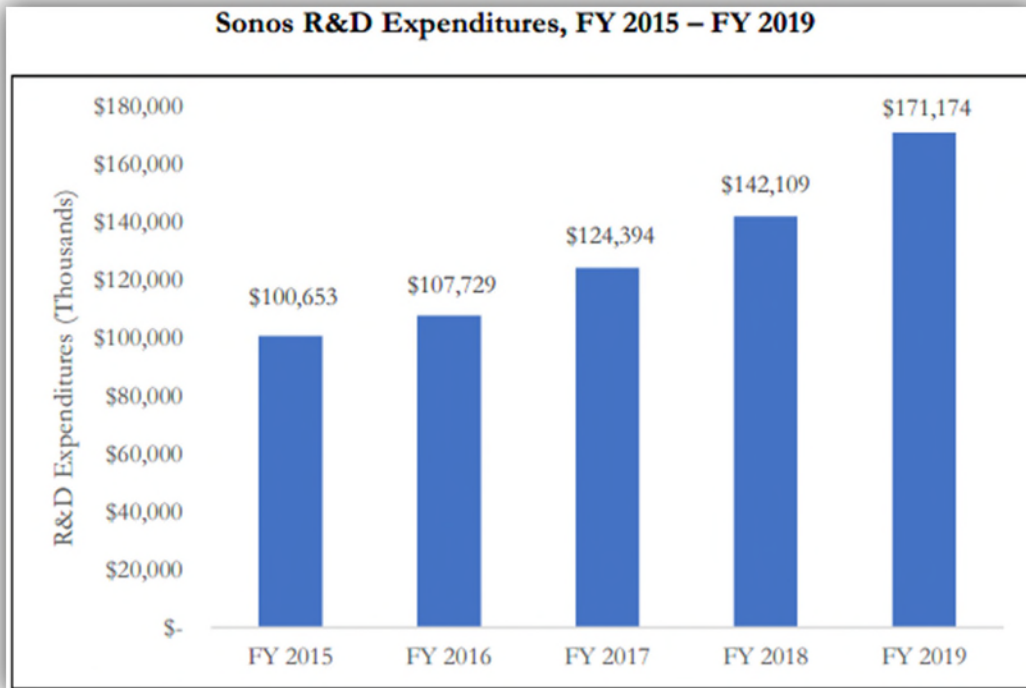
Sonos was founded in 2002 and is headquartered in Santa Barbara, California. (SUMF 32.) Sonos designs, develops, and sells multi-room audio products. (Ex. 21 (SONOS-ITC-00708953), Sonos Form 10-K at 51 (Sept. 28, 2019).) Sonos provides wireless and home theater speakers, components, and accessories through approximately 10,000 third-party retail stores and e-commerce retailers, as well as direct through the Sonos website, sonos.com. (*Id.* at 7.)

Sonos introduced its first commercial product in January 2005, the ZP100. In 2007, Sonos offered the first controller app for the iPhone as a free download; in 2009, Sonos released the first generation Play:5, a smart, all-in-one speaker. In October 2017, Sonos introduced its first voice-enabled wireless speaker, the Sonos One, and, in July 2018, introduced the first voice-

enabled home theater speaker, the Sonos Beam. In 2019, Sonos released the Move, a durable, battery-powered smart speaker for outdoor and indoor listening. (*Id.* at 4.)

Sonos invests in product development through its personnel who support research and development efforts. In addition to new product launches, Sonos frequently introduces new features through software upgrades, providing customers with enhanced functionality and improved sound in the home. (*Id.*)

One of the key elements of Sonos's growth strategy is to consistently introduce innovative products. Sonos's research and development teams develop new software and hardware products, as well as improve and enhance existing software and hardware products to address customer demands and emerging trends. Sonos's research and development teams have worked on features and enhancements to the Sonos system including development and improvements to the Sonos app, product setup, Trueplay tuning and the universal search function. The products and software Sonos develops require significant technological knowledge and expertise to develop at a competitive pace. (*Id.* at 7.) Sonos's annual investment in research and development, which consists primarily of personnel-related expenses, consulting and contractor expenses, tooling, test equipment, prototype materials, and overhead costs (*id.* at 32), has increased every year since at least 2015, on both an absolute basis and as a percentage of sales. (Ex. 1, Milani Report, Ex. 29.0.) Sonos's R&D investments by year are reflected in the following Figure:



Sonos’s 20.5% year-over-year increase in research and development expenditures in fiscal year 2019 was primarily due to higher personnel-related expense of \$22.7 million because headcount increased (particularly software personnel), as Sonos focused on increasing the pace of new product introductions. (SUMF 100.) Sonos continues to invest heavily in research and development, in order to strengthen the competitiveness of its products in the intensely competitive markets in which Sonos operates.²

B. Sonos’s Domestic Industry Products Are Synonymous with Its Business

The Sonos products that practice the Asserted Patents (“Domestic Industry Products” or “DI Products”) include audio players, controller/computing devices (such as smartphones, tablets, or computers) installed with the Sonos S1 or S2 app for iOS, Android, FireOS, macOS,

² Ex. 21, SONOS-ITC-00708953 at 69.

or windows, and streaming components designed specifically for use with the players and controllers. (SUMF 2.)³ The specific DI Products are summarized in the following Figure:

Summary of Sonos DI Products by Asserted Patent

Sonos Patent	Controllers				Players	
	Android/Fire	iOS	Mac	Windows	One	One SL
8,588,949	√	√	√	√	√	√
9,195,258	√	√	√	√	√	√
9,219,959	√	√			√	√
10,209,953	√	√	√	√	√	√
10,439,896	√	√			√	√

Sonos Patent	Players					
	Play:1	Play:3	Play:5	Move	Beam	Playbar
8,588,949	√	√	√	√	√	√
9,195,258	√	√	√	√	√	√
9,219,959	√	√	√	√	√	√
10,209,953	√	√	√	√	√	√
10,439,896	√	√	√	√	√	√

Sonos Patent	Players					
	Playbase	SYMFONISK Table Lamp	SYMFONISK Bookshelf	Sub	Five	Arc
8,588,949	√	√	√		√	√
9,195,258	√	√	√		√	√
9,219,959	√	√	√		√	√
10,209,953	√	√	√	√	√	√
10,439,896	√	√	√		√	√

Sonos Patent	Streaming Components			
	Connect	Port	Connect: Amp	Amp
8,588,949	√	√	√	√
9,195,258	√	√	√	√
9,219,959				
10,209,953	√	√	√	√
10,439,896	√	√	√	√

(SUMF 3-6.) The DI Products comprise the vast majority of the products the company sells and are, therefore, synonymous with Sonos’s business. (SUMF 7.) As reflected in the following

³ As noted above, this motion is directed only to the economic prong. Sonos will present evidence at the hearing showing that the DI Products do, in fact, practice at least one valid claim of each Asserted Patent. Google contests the technical prong and asked Sonos to insert the modifier “allegedly” through the Statement of Undisputed Material Facts filed in support of this motion. For readability, Sonos omits that modifier from this motion without intending to convey that Google agrees that the technical prong is satisfied.

Figure, over the period FY2015 – Q1 FY2020 the DI Products have accounted for over [REDACTED] of Sonos's sales:



(SUMF 7.)

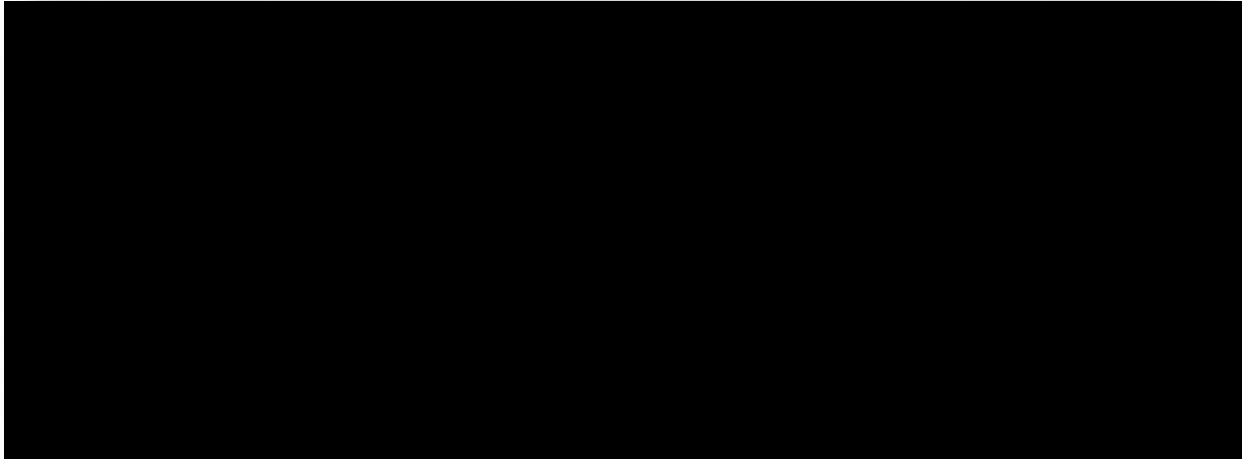
V. SONOS SATISFIES THE ECONOMIC PRONG AS TO ALL ASSERTED PATENTS

The DI Products would not exist but for Sonos's investments in the United States in labor, plants, and equipment. Over just the last five years⁴, Sonos has invested [REDACTED]

⁴ Sonos has quantified its domestic industry from fiscal year 2015 through the first quarter of fiscal year 2020, which ended on December 28, 2019, ten days before Sonos filed the complaint in this investigation. Sonos refers to this time period as the "DI Time Period." This five-year period of investments is reasonable, because Sonos was engaged in continuous research, design, development, support, and sales of the DI Products. *See Certain Gas Spring Nailer Prods. & Components Thereof*, Inv. No. 337-TA-1082, Comm'n Op. at 81, n. 18 (Apr. 28, 2020) ("The Commission finds that this time frame is reasonable because those past expenditures relate to Kyocera's investments in R&D and engineering of the DI products and because complainant continued to make such investments until the complaint was filed."); *Certain Elec. Digital Media Devices & Components Thereof*, Inv. No. 337-TA796, Comm'n Op. at 100-02 (Sep. 6, 2013) (crediting expenses incurred over a six-year period (from 2006 through the first quarter of 2012)).

_____ dollars in research, development, and engineering allocable to the DI Products.

Sonos's total domestic industry investments by patent are summarized in the table below:



(SUMF 11.)

Almost the entirety of the R&D activities relating to the DI Products occurs in the United States. The depth and breadth of Sonos's technical activities in the United States is apparent from the wealth of information Sonos has produced, much of which Sonos cites in this motion and accompanying Statement of Undisputed Material Facts.⁵ Sonos included its investments in the following cost centers toward its domestic industry in this investigation: _____

_____. (SUMF 8.) The work that Sonos conducts in these cost centers is entirely devoted to R&D. These cost centers are described in the Figure below:

⁵ Should Sonos's motion be denied, Sonos is prepared to seek the admission of additional evidence through the hearing testimony of its fact and expert witnesses.

(SUMF 9.)

Sonos's inclusion of investments in these cost centers is highly conservative in that Sonos omitted R&D investments accounted for in other cost centers that are not entirely dedicated to R&D. For example, Sonos conducts a significant amount of R&D activity in cost centers [REDACTED] and [REDACTED]; but, because those cost centers are not entirely dedicated to R&D, Sonos did not include them in its analysis.

(SUMF 10.)

Sonos performed R&D activities relating to the DI Products at each of the following locations over the course of all or portions of the DI Time Period:

- 1) 25 E. Mason St. and 27 E. Cota St., Santa Barbara, CA ("Santa Barbara Facilities");
- 2) 2 Avenue de Lafayette, Boston, MA ("Boston Facility");
- 3) 25 First Street, Cambridge, MA ("Cambridge Facility");
- 4) 1501 E. Madison St and 800 5th Avenue, Seattle, WA ("Seattle Facilities"); and
- 5) 550 Montgomery Street, San Francisco, CA ("San Francisco Facility").

(SUMF 30.) Sonos describes each of these facilities in Section V.B.1.

A. Sonos's Significant Employment of Labor

Sonos has invested hundreds of millions of dollars in labor directed to products that practice each of the Asserted Patents, as shown below:



(SUMF 11.)

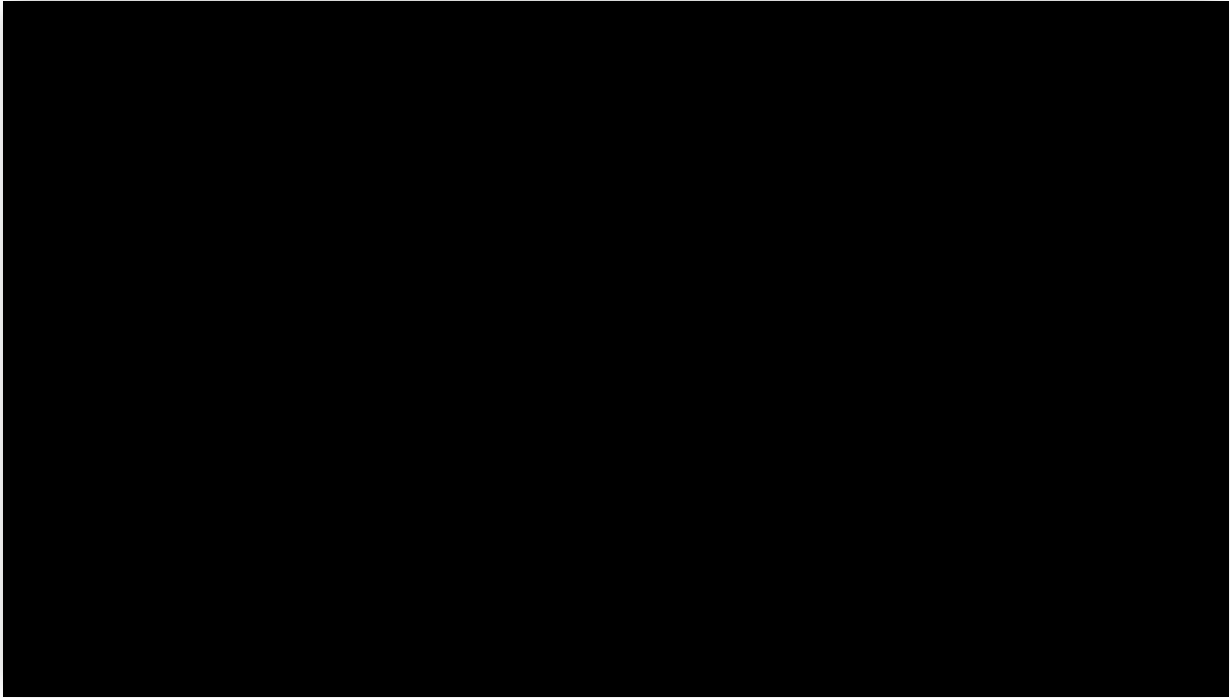
As explained below, Sonos utilized a rigorous framework to calculate its labor investments in separate DI Products and then summed the product-level investments for every product that practices each Asserted Patent to allocate those labor investments to each Asserted Patent.

As further explained below, Sonos's domestic labor investments allocated to each Asserted Patent are quantitatively and qualitatively significant.

1. Sonos Employed a Rigorous Methodology to Allocate Its Labor Investments to the Asserted Patents

Sonos, through its economic expert, Michael K. Milani, applied a rigorous methodology to allocate its labor investments to DI Products and then summed those product-specific investments to calculate Sonos's total labor investments per Asserted Patent.⁶ Mr. Milani outlined this methodology in the following flowchart:

⁶ Mr. Milani's report, including errata and a declaration attesting to the report's accuracy, is attached to this motion as Exhibit 1.



(SUMF 14.) The following steps summarize how Mr. Milani allocated Sonos's labor investments to specific DI Products; Mr. Milani describes his methodology in exhaustive detail over 18 pages in his expert report. (See Ex. 1 at 63-81.) The "L#" corresponds to Figure 35 above. (SUMF 15.) (A larger version of Fig. 35 is attached to Mr. Milani's report as Exhibit 5.1.)

Step 1: Mr. Milani quantified Sonos's total U.S. investment in R&D labor for each of the R&D cost centers and then adjusted that amount to remove compensation for administrative staff, resulting in net labor investment in R&D (L1). (SUMF 15.)

Step 2: Mr. Milani allocated net labor investment in R&D between investments in hardware (L2) and investments in software (L3). (SUMF 16.)

Step 3: On the software side, Mr. Milani allocated the labor investment relating to software (L3) between investments relating to player-side software (L4) and investments relating to controller software (L5). (SUMF 17.)

Step 4: Mr. Milani combined investments relating to hardware (L2) and investments relating to player-side software (L4) to determine total investments in hardware and player-side software (L6). (SUMF 18.)

Step 5: Mr. Milani allocated a portion of the combined investment in hardware and player-side software (L6) to each of the DI Products (L7 & L14) and Non-DI Products (L8). (SUMF 19.)

Step 6: Mr. Milani allocated the remaining portion of investment in hardware and player-side software (L6) to incubation and sustaining engineering for the DI Products (L9) and non-DI Products (L10). (SUMF 20.)

Step 7: Mr. Milani allocated investments relating to controller software (L5) to DI Products interfacing with the controller (L12) and non-DI Products interfacing with the controller (L11). (SUMF 21.)

Step 8: Mr. Milani allocated investments relating to DI Products interfacing with the controller (L12) to shared and operating system specific code (L13). (SUMF 22.)

Step 9: Mr. Milani grouped investments in DI Products (L14) and investments in shared and operating-specific code (L13) to each of the asserted patents, as reflected in Section 10.8 of his report. (SUMF 23.)

Mr. Milani also performed these steps for Sonos's non-U.S. investment in R&D labor, as reflected in the "R&D Labor Investment Allocation Framework – Non-U.S." which is attached to his report as Exhibit 5.2. (SUMF 24.)

The domestic industry labor investments quantified above are highly conservative in that they do not reflect any R&D investments accounted for in cost centers that are not entirely dedicated to R&D. For example, while a significant amount of R&D activity takes place in cost

centers [REDACTED] and [REDACTED], because those cost centers are not entirely dedicated to R&D, Sonos did not include them in its analysis. (SUMF 10.) Further, in removing compensation paid to administrative personnel, Sonos relied on the average compensation paid to all individuals in a particular cost center, which likely overstates the amount paid to the administrative personnel, resulting in lower claimed investments in labor. Additionally, Sonos did not allocate any part of [REDACTED] in additional labor investment relating to incubation and sustaining engineering activities that are, in large part, attributable to the DI Products. (SUMF 12.)

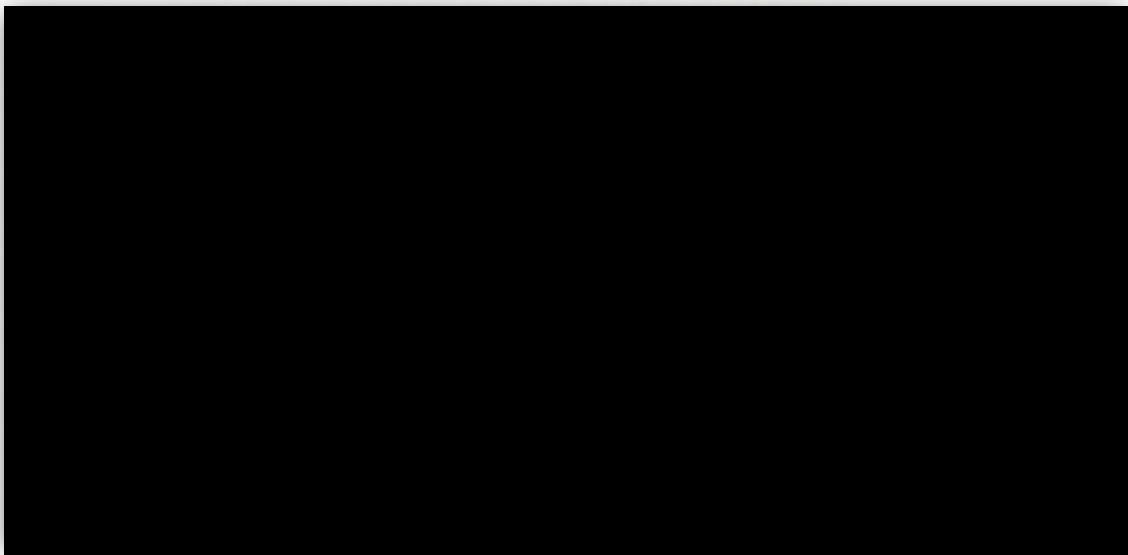
2. Sonos Has Invested At Least \$ [REDACTED] in Labor Allocable to Products that Practice Each Asserted Patent

The below tables present Sonos's labor investments over the DI Time Period in products that practice each Asserted Patent. The left half of each table shows labor investments in the United States in qualifying R&D and engineering activities allocable to players and controllers that practice each Asserted Patent. For comparison and to show the quantitative significance of Sonos's domestic investments in qualifying labor, the right half of each table shows labor investments *outside* the United States in R&D and engineering activities allocable to the same products.

'258 Patent. Sonos's U.S. R&D labor investment relating to products that practice the '258 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D labor investments relating to products that practice the '258 patent totals \$ [REDACTED]. (SUMF 25.) These investments are broken down by product in the following table:

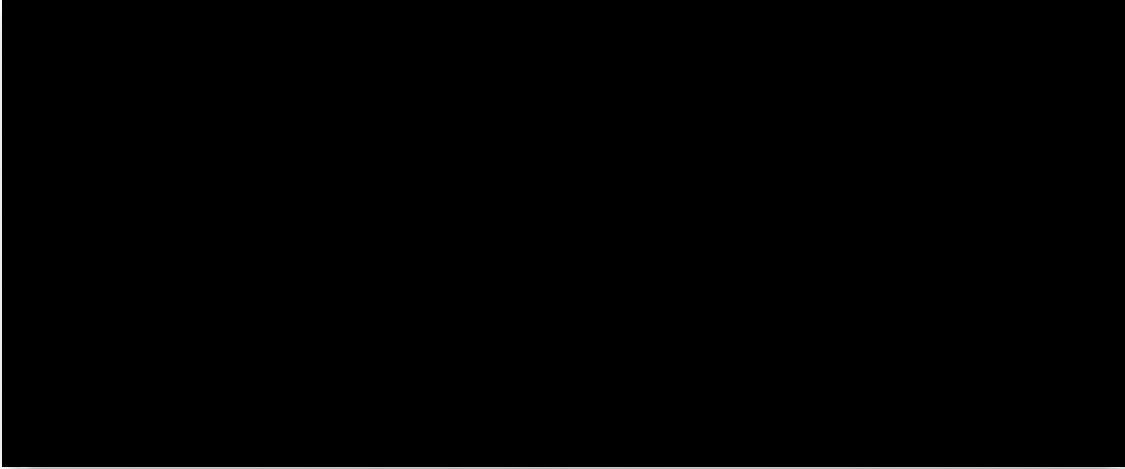


'953 Patent. Sonos's U.S. R&D labor investment relating to products that practice the '953 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D labor investments relating to products that practice the '953 patent totals \$ [REDACTED]. (SUMF 26.) These investments are broken down by product in the following table:

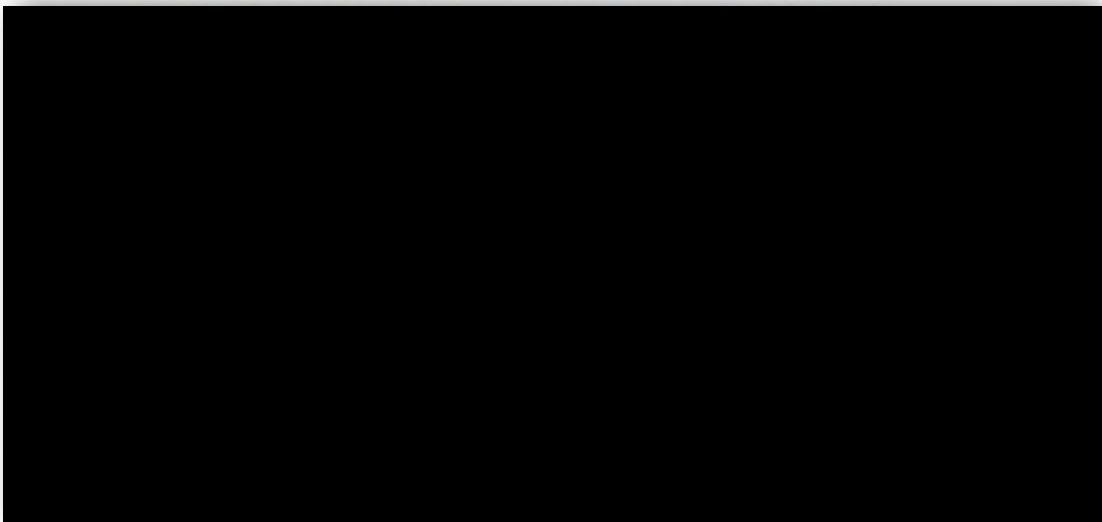


'959 Patent. Sonos's U.S. R&D labor investment relating to products that practice the '959 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D labor investments relating to products

that practice the '959 patent totals \$ [REDACTED]. (SUMF 27.) These investments are broken down by product in the following table:

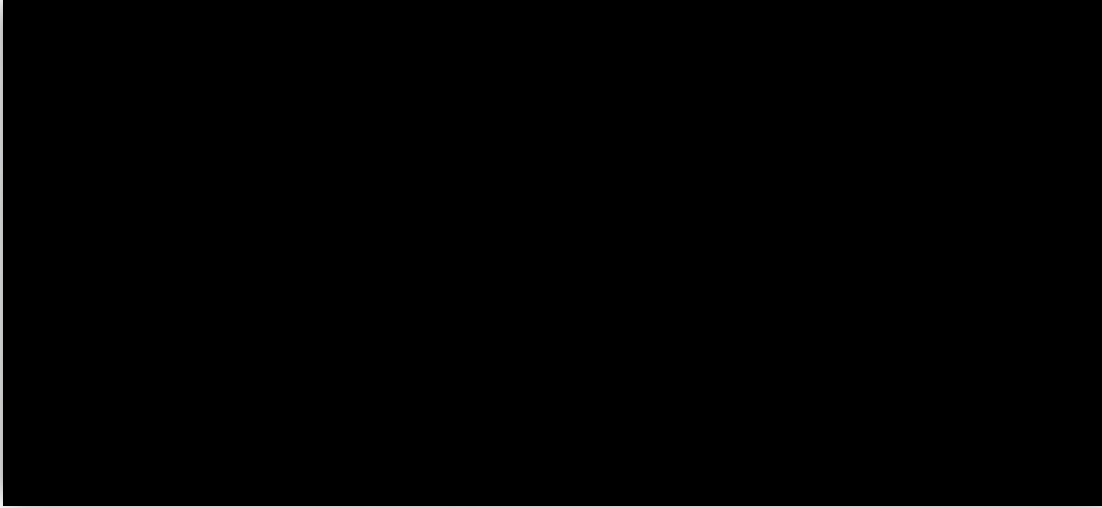
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'949 Patent. Sonos's U.S. R&D labor investment relating to products that practice the '949 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D labor investments relating to products that practice the '949 patent totals \$ [REDACTED]. (SUMF 28.) These investments are broken down by product in the following table:

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'896 Patent. Sonos's U.S. R&D labor investment relating to products that practice the '896 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D labor investments relating to products

that practice the '896 patent totals \$ [REDACTED]. (SUMF 29.) These investments are broken down by product in the following table:



3. Sonos's Labor Investments are Significant

Sonos's domestic investments in labor allocated to the DI Products are quantitatively and qualitatively significant in the context of Sonos's total investments in R&D and in comparison to Sonos's foreign expenditures on R&D allocated to the same products. *Certain Printing Devices*, Inv. No. 337-TA-690, Comm'n Op. at 27-28 (Feb. 17, 2011).

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. R&D labor relating to DI player hardware and player-side software, which represents the following:

- [REDACTED]% of Sonos's total U.S. investments in R&D labor during that period;
- [REDACTED]% of Sonos's total U.S. R&D labor investments in DI and non-DI player and player-side software and cancelled projects (from inception through launch), during that period; and
- More than [REDACTED] times the \$ [REDACTED] million Sonos spent outside the U.S. on R&D labor during that period.

(SUMF 102.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. R&D labor relating to DI controllers, which represents the following:

- [REDACTED] % of Sonos's total U.S. investments in R&D labor during that period; and
- More than [REDACTED] times the \$ [REDACTED] million Sonos spent outside the U.S. on R&D labor during that period.

(SUMF 103.)

'258 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D labor relating to the DI Products that practice the '258 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D Labor relating to the DI Products that practice the '258 patent during that period. (SUMF 104.)

'953 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D labor relating to the DI Products that practice the '953 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D Labor relating to the DI Products that practice the '953 patent during that period. (SUMF 105.)

'959 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D labor relating to the DI Products that practice the '959 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D Labor relating to the DI Products that practice the '959 patent during that period. (SUMF 106.)

'949 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D labor relating to the DI Products that practice the '949 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D Labor relating to the DI Products that practice the '949 patent during that period. (SUMF 107.)

'896 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D labor relating to the DI Products that practice the '896 patent total \$ [REDACTED]. Those investments are more

than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D Labor relating to the DI Products that practice the '896 patent during that period. (SUMF 108.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. R&D labor relating to sustaining engineering and incubation of existing and future DI products, which represents the following:

- [REDACTED] % of Sonos's total investments in R&D labor over that period;
- More than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on R&D labor during that period.

(SUMF 109.)

B. Sonos's Significant Investments in Plants and Equipment

Over the course of the DI Time Period, Sonos has invested millions of dollars in plants and equipment allocable to the DI Products. As with its labor investments, Sonos and its expert meticulously allocated these investments using two alternative methodologies. In one methodology, Sonos allocates its investments in plant and equipment using headcount; in the other methodology, Sonos allocates investments in plant and equipment using floorspace. The results of both methodologies are similar at a patent level, which reinforces the accuracy of the methodologies and means that the Chief ALJ and Commission could rely on either to find that a domestic industry exists under section 337(a)(3)A). As explained below, Sonos's investments in plant and equipment are quantitatively and qualitatively significant.

1. Overview of Sonos's Plants

Over the DI Time Period, Sonos performed R&D activities relating to the DI Products at each of the following locations:

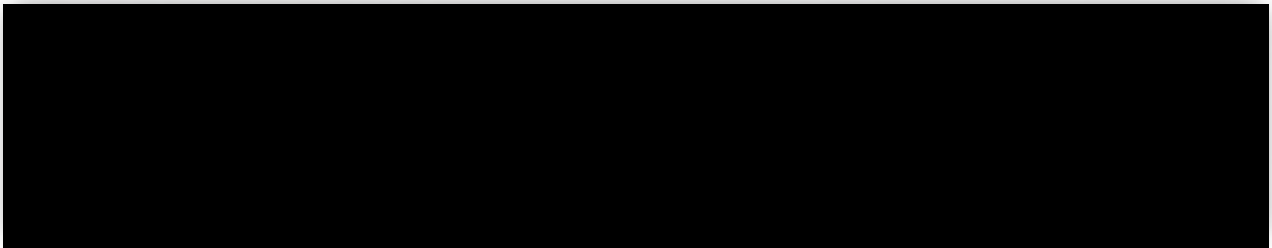
- 1) 25 E. Mason St. and 27 E. Cota St., Santa Barbara, CA ("Santa Barbara Facilities");
- 2) 2 Avenue de Lafayette, Boston, MA ("Boston Facility");

- 3) 25 First Street, Cambridge, MA (“Cambridge Facility”);
- 4) 1501 E. Madison St and 800 5th Avenue, Seattle, WA (“Seattle Facilities”); and
- 5) 550 Montgomery Street, San Francisco, CA (“San Francisco Facility”).⁷

(SUMF 30.)

Santa Barbara Facilities. Sonos was founded in Santa Barbara, CA, and at one point was downtown Santa Barbara’s largest private-sector tenant. (SUMF 32.) Sonos currently occupies [REDACTED] facilities in Santa Barbara totaling approximately [REDACTED] square feet. (SUMF 33.) The Santa Barbara Facilities at 25 E. Mason Street (“25 E. Mason Facility”) and 27 E. Cota Street (“27 E. Cota Facility”) both conduct R&D activities relating to the DI Products. (SUMF 33.) Sonos produced floorplans for each floor of the Santa Barbara facilities with the lab spaces labeled and the areas used for domestic industry activities outlined in green. (SUMF 36, 38, 39, 41, 44.)

Sonos’s 25 E. Mason Facility has a total square footage of [REDACTED] square feet. (SUMF 34.) The sections of the 25 E. Mason Facility that support R&D of the DI Products include labs, listening rooms, machine shops, and other work areas. (SUMF 35.) The labs and listening rooms on the 1st floor of the 25 E. Mason Facility are summarized in the following Figure:



⁷ Sonos also performed R&D activities at 614 Chapala St. in Santa Barbara, CA, during the DI Time Period, but that location primarily includes employees dedicated to go-to-market and general & administrative activities, so Sonos did not count investments in that facility toward its domestic industry. (SUMF 31.) In this way, Sonos’s calculation of its investments in plant and equipment is conservative.

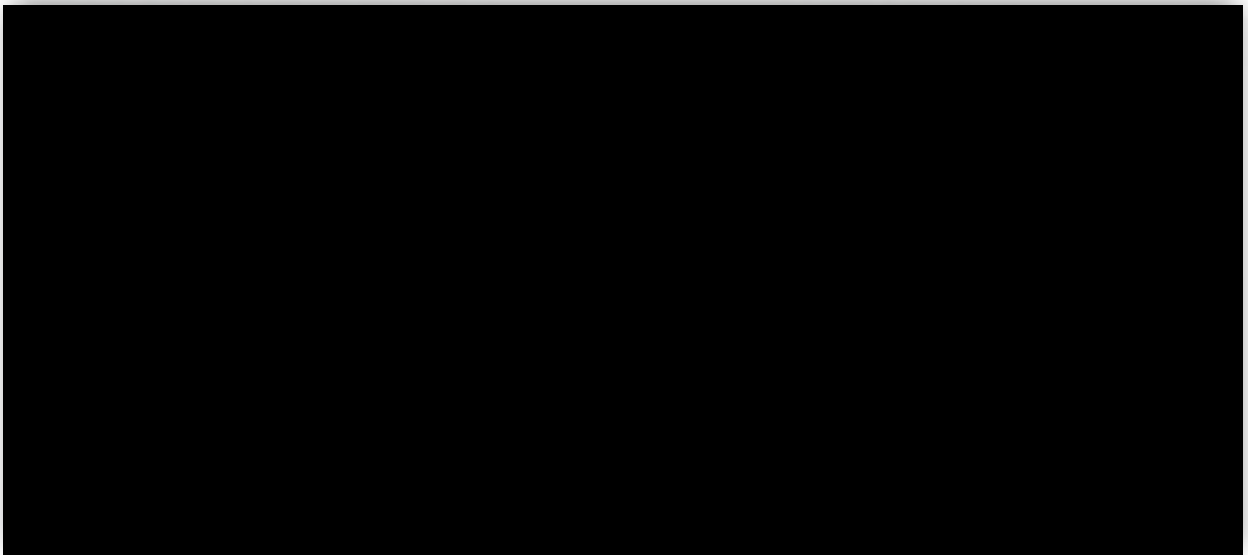
(SUMF 37.)

Below is an image of one of the listening rooms in the 25 E. Mason Facility:

Listening Room in the 25 E. Mason Facility

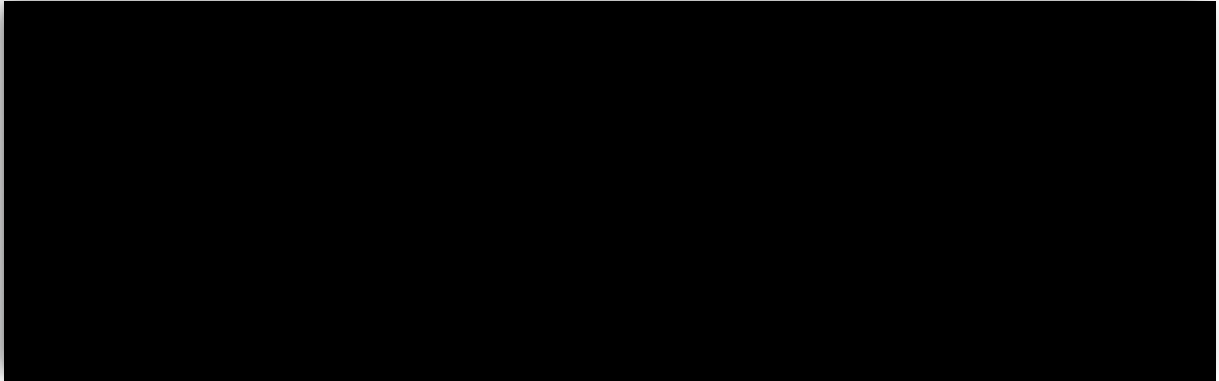


The 2nd floor labs and listening rooms of the 25 E. Mason Facility are summarized in the following Figure:



(SUMF 40.)

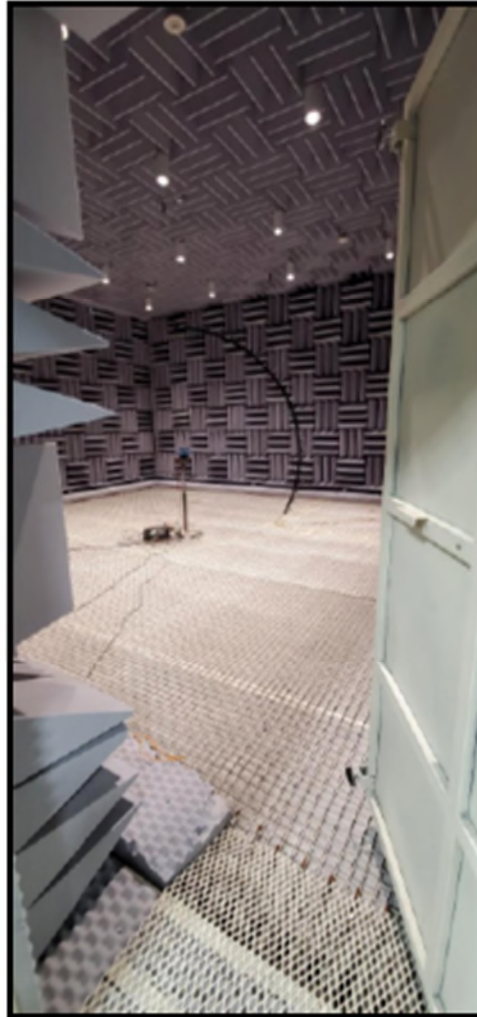
The labs and listening rooms on the 3rd floor of the 25 E. Mason Facility are summarized in the following Figure:



(SUMF 42.)

Sonos's 27 E. Cota Facility houses Sonos's West Coast anechoic chambers; therefore, 100% of this facility is dedicated to R&D. (SUMF 43.) The 4 Pi anechoic chamber is one of the largest anechoic chambers on the West Coast. During construction of the anechoic chambers, the foundation of the building had to be retrofitted to improve its seismic resistance and minimize any potential impact on the anechoic chambers. (SUMF 45.) The 2 Pi (left) and 4 Pi (right) chambers in 27 E. Cota are show below:

27 E. Cota Facility 2 Pi and 4 Pi Anechoic Chambers



Boston Facility. Sonos moved to the Boston Facility in 2016. (SUMF 46.) The Boston Facility exists in large part for the purpose of conducting R&D in support of the DI Products. The locations within the Boston Facility that Sonos employees utilize to perform R&D activities in support of the DI Products include labs, listening rooms, anechoic chambers, machine shops, and other work areas. (SUMF 47.) The Boston Facility is comprised of two floors with a total square footage of [REDACTED] square feet. As of January 7, 2020, Sonos occupied approximately [REDACTED] square feet of that space. (SUMF 48.) Sonos produced floorplans for both floors of the Boston facility with the lab spaces labeled and the areas used for domestic industry activities outlined in green. (SUMF 49, 54.)

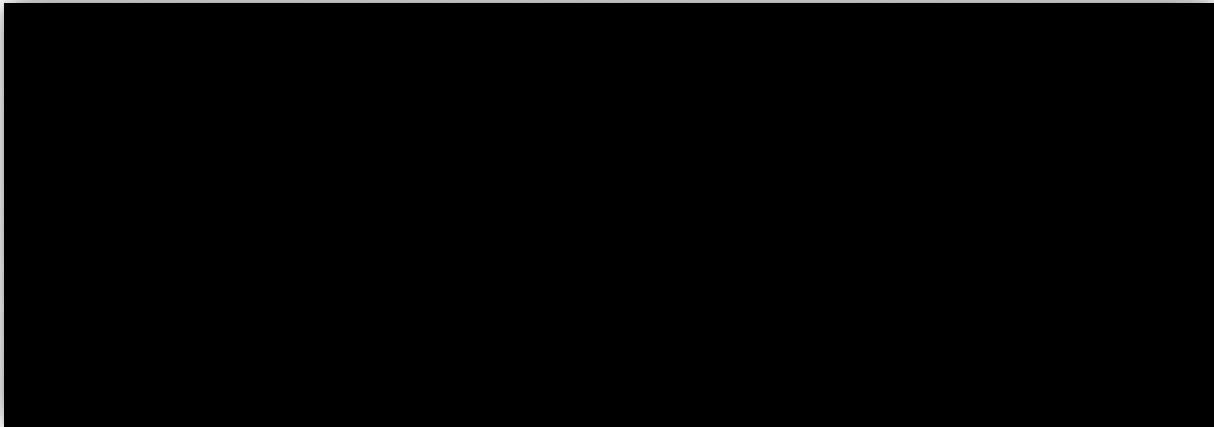
The 3rd floor of the Boston Facility includes a number of labs including a [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED], and 2 Pi and 4 Pi

Anechoic Chambers.⁸ Those locations are summarized in the following Figure:



(SUMF 52.)

⁸ Many of the conference rooms and common spaces on the 3rd floor are used almost exclusively by engineering teams, but Sonos did not include these in the annotated area, because they are not necessarily dedicated to R&D activities. Also, the [REDACTED] is used exclusively for software related R&D but is not included in the annotated areas. Thus, Sonos's domestic industry calculation is conservative. (SUMF 50.)

The Boston EMC Chamber is shown below:

Playbase Tests in the Boston EMC Chamber



The 3rd floor of the Boston Facility includes two specially built anechoic chambers, a 2 Pi anechoic chamber and a 4 Pi anechoic chamber. The 2 Pi chamber is typically used to test speakers that only radiate sound forward (e.g., wall or ceiling mounted speakers) and the 4 Pi chamber is typically used to test speakers that radiate both forward and rearward. During the build-out of the Boston Facility, the portion of the space housing the anechoic chambers had to be specially modified to ensure that normal daily vibrations, including a subway line that runs under the building, would not affect anechoic chamber tests. This included special vibration absorbers installed in the foundation as well as separating the floor adjacent to the chambers from the rest of the building. The anechoic chambers essentially float independently inside the Boston building. The anechoic chambers are lined with material that absorbs all sound and cancels any reverberations. The 4 Pi chamber is a 30' by 30' by 30' anechoic chamber. The floor is a trampoline-like mesh topped with a metal grid suspended about ten feet above the gray, foamy floor below. (SUMF 53.)

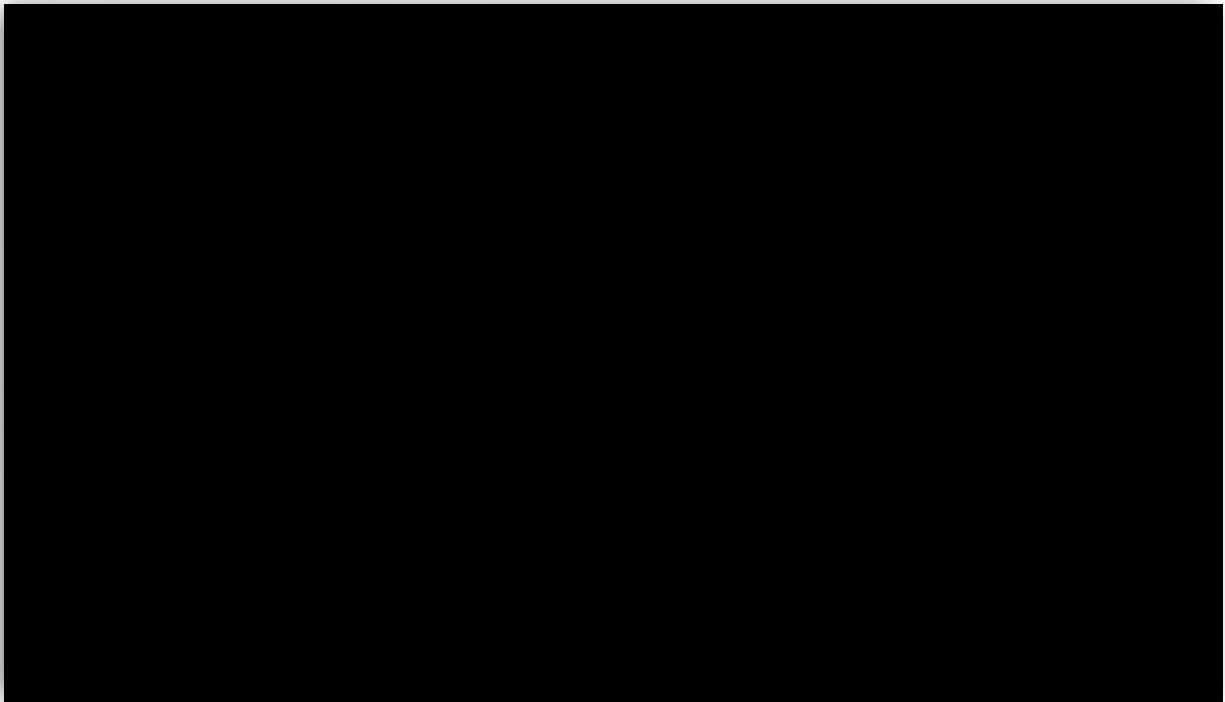
The 4 Pi chamber in Boston is shown below:

Boston Facility's 4 Pi Anechoic Chamber



The 4th floor of the Boston Facility also contains a number of locations that perform R&D in support of the DI Products, including [REDACTED]

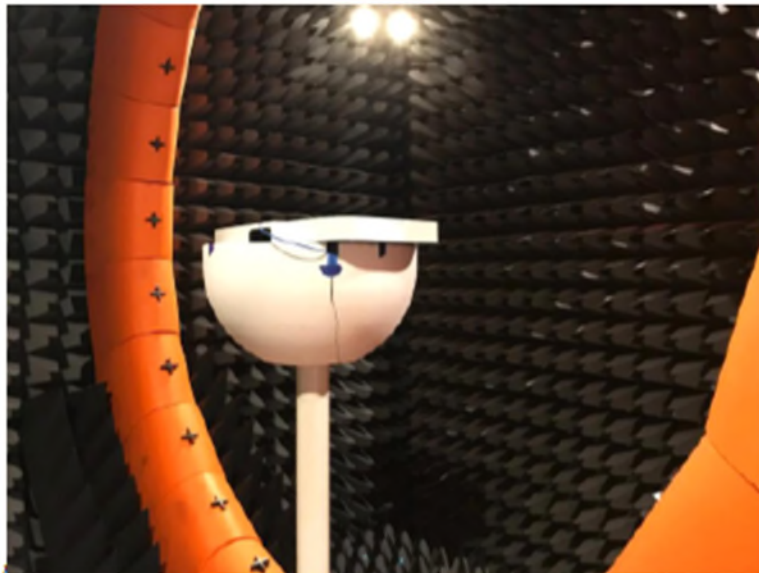
[REDACTED]. Those locations are summarized in the following Figure:



(SUMF 55-56.)

A Wi-Fi Screen Room in Boston is shown below:

Wi-Fi Screen Room Test in the Boston Facility



In addition, the 4th floor of the Boston Facility includes a number of meeting rooms and workspaces. Some of those meeting rooms include electronic whiteboards and highly sensitive

microphones and cameras. Sonos's Santa Barbara Facilities have identical rooms to enable cross-country collaboration on projects. (SUMF 81.) In 2020, Sonos has also used its sophisticated videoconferencing technology to direct and interact with engineers in Asia, whereas previously American engineers would have traveled to these Asian facilities; in fact, [REDACTED]

[REDACTED]. (SUMF 57.)

Cambridge Facility. Prior to occupying the Boston Facility, Sonos occupied a facility across the river in Cambridge, MA. In CY15, Sonos occupied the 2nd, 3rd, and 4th floors at 25 First St. in Cambridge, with a total square footage of [REDACTED] ft, and in 2016, Sonos began transitioning its workforce to the Boston Facility. (SUMF 58.) With regard to the 2nd floor of the Cambridge Facility, Sonos occupied [REDACTED] ft², 100% of which was dedicated to R&D. (SUMF 59.) With regard to the 3rd floor of the Cambridge Facility, Sonos occupied [REDACTED] ft², a portion of which was dedicated to R&D. (SUMF 60.) With regard to the 4th floor of the Cambridge Facility, Sonos occupied [REDACTED] ft², 100% of which was dedicated to R&D. (SUMF 61.) Sonos produced floorplans for each floor of the Cambridge Facility with the areas used for domestic industry activities outlined in green. (SUMF 59-61.)

San Francisco Facility. Sonos occupies offices at 550 Montgomery Street in San Francisco, CA. In 2019, Sonos hired a group of experienced software engineers who resided in the San Francisco area, and Sonos opened the San Francisco office to provide space for that group. (SUMF 62.) Sonos occupies [REDACTED] ft² in San Francisco, which is almost entirely dedicated to R&D. (SUMF 63.) Sonos produced a floorplan for the San Francisco Facility with the areas used for domestic industry activities outlined in green. (SUMF 63.)

The Seattle Facilities. Sonos first opened a Seattle office at the Bullitt Center, 1501 E. Madison Street (“1501 E. Madison Facility”), in 2015. Within three years Sonos had reached capacity and began leasing out space at a WeWork space. In 2019, Sonos opened a new Seattle office at 800 Fifth Avenue to consolidate its Seattle employees in one facility (“the 800 Fifth Facility”). The Seattle Facilities were opened to provide Sonos access to the talent pool of software engineers in Seattle. Sonos considers Seattle “. . . one of the most important parts of [Sonos’s] software hiring strategy.” (SUMF 64.)

Sonos’s lease on the 1501 E. Madison Facility commenced on May 1, 2015 and expired on August 31, 2019. Sonos occupied [REDACTED] square feet at the 1501 E. Madison Facility. On February 1, 2018 Sonos began leasing office space in a co-working building at 107 Spring Street, however, no R&D personnel ever occupied that location. Sonos occupied the 4th and 6th Floors of the 1501 E. Madison Facility. (SUMF 65.) 100% of the 4th floor of the 1501 E. Madison Facility was dedicated to R&D and a portion of the 6th floor was dedicated to R&D. (SUMF 66-67.) Sonos produced floorplans for both floors of the 1501 E. Madison Facility with the areas used for domestic industry activities outlined in green. (SUMF 66-67.)

Sonos’s lease on the 800 Fifth Facility commenced on July 1, 2019 and Sonos occupies [REDACTED] ft². The portion of the 800 Fifth Facility that is dedicated to R&D includes groups such as [REDACTED]
[REDACTED]. Sonos produced a floorplan for the 800 Fifth Facility with the areas used for domestic industry activities outlined in blue. (SUMF 68.)

2. Sonos Employed Two Methodologies to Allocate Plant Investments to the Asserted Patents

Sonos, through Mr. Milani, employed two methodologies—one based on headcount and one based on floorspace—to allocate rent expenses to the Asserted Patents. (SUMF 69-74.) The results of both methodologies are similar and both form the basis for a finding that Sonos satisfies the domestic industry requirement under section 337(a)(3)(A). (SUMF 76-80.) The below steps summarize how Sonos’s economic expert, Mr. Milani, allocated Sonos’s investments in plants to the DI Products; Mr. Milani explains his complete methodologies in detail over the course of nine pages of his expert report. (Ex. 1 at 86-95.)

Step 1: Mr. Milani quantified Sonos’s total U.S. rent expenditures for facilities where R&D is conducted. (SUMF 69.)

Step 2: Mr. Milani allocated the rent expenditures to R&D based on two different methodologies: 1) based on the percentage of employees at a particular location that are dedicated to R&D, and 2) based on the percentage of the physical space at a particular location that is dedicated to R&D. (SUMF 70.)

Step 3: Mr. Milani allocated the rent expenditures dedicated to R&D (resulting from the two methodologies) to the each of the DI Products. (SUMF 71.)

Step 4: Mr. Milani allocated the rent expenditures dedicated to R&D (resulting from the two methodologies) to the DI controllers. (SUMF 72.)

Step 5: Mr. Milani grouped investments in DI products and DI controllers (resulting from the two methodologies) to each of the asserted patents, as reflected in Section 11.6 of his report. (SUMF 73.)

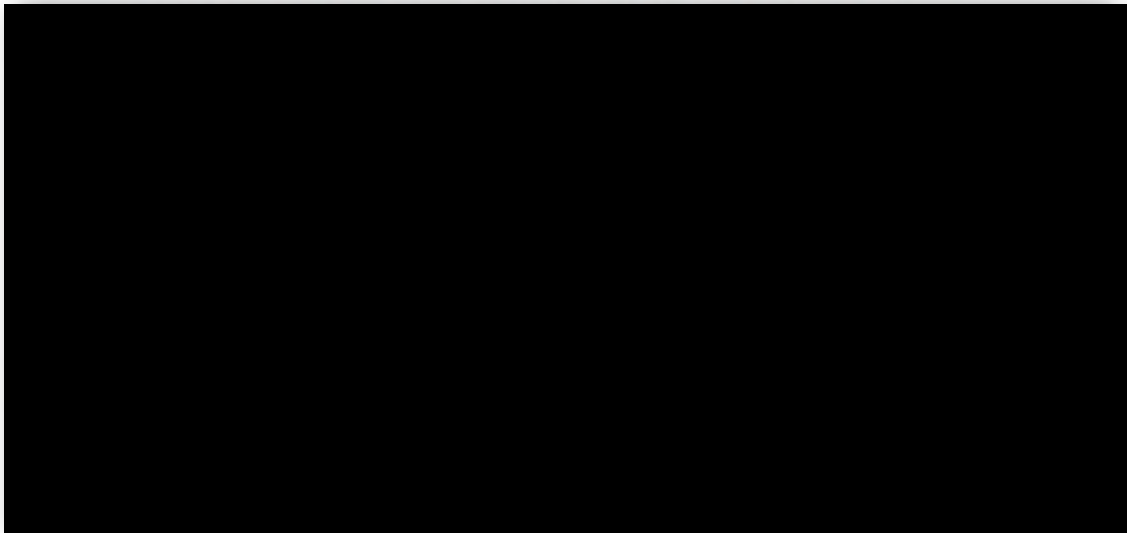
Step 6: Mr. Milani repeated the preceding steps for Sonos's non-U.S. rent investments to allocate the rent investments to R&D (using only the R&D headcount methodology). (SUMF 74.)

Sonos's calculation of its investments in plants is conservative. Sonos included only the amount of rent it paid in connection with leasing the facilities described above; Sonos did not include other plant-related investments that the Commission frequently credits toward a domestic industry, including investments relating to the operation of the facilities and/or leasehold improvements. Sonos's investments based on the headcount allocation metrics reflect the conservative quantification of R&D labor, while Sonos's investments based on the floor plan allocation metrics do not account for a significant amount of shared space that is used for engineering, albeit not exclusively. (SUMF 75.)

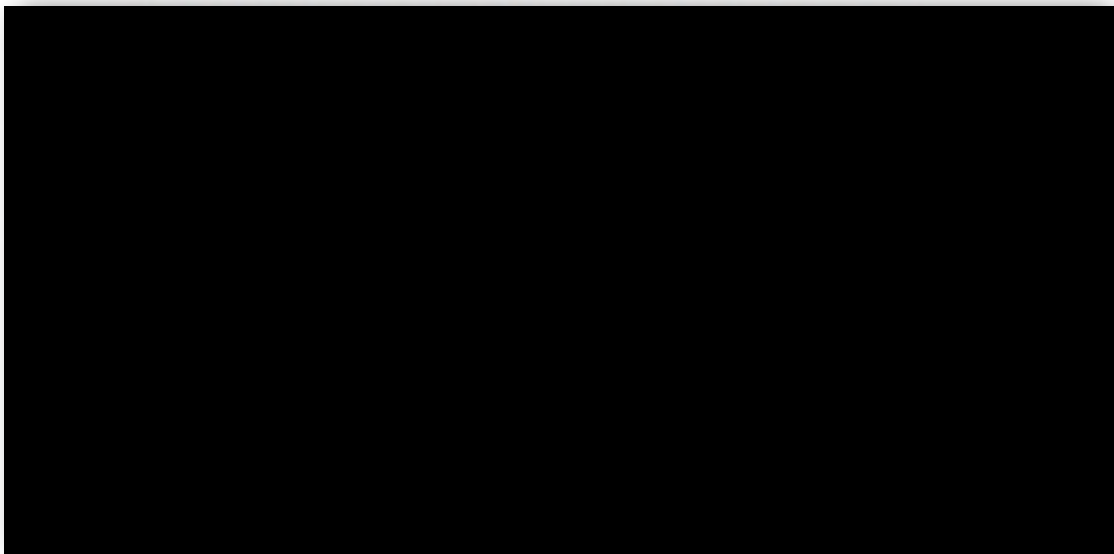
3. Sonos's Investments in Its Plants

Sonos has invested millions of dollars in rent expenses in the domestic industry facilities. Sonos allocates these investments to products that practice each Asserted Patent in each of the below tables. Each table allocates U.S. rent expense based on headcount and floor plan, and non-U.S. rent expense based on headcount.

'258 Patent. Sonos's U.S. R&D-related rent expense relating to products that practice the '258 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D-related rent expense relating to products that practice the '258 patent totals \$ [REDACTED]. (SUMF 76.) These investments are broken down by product in the following table:

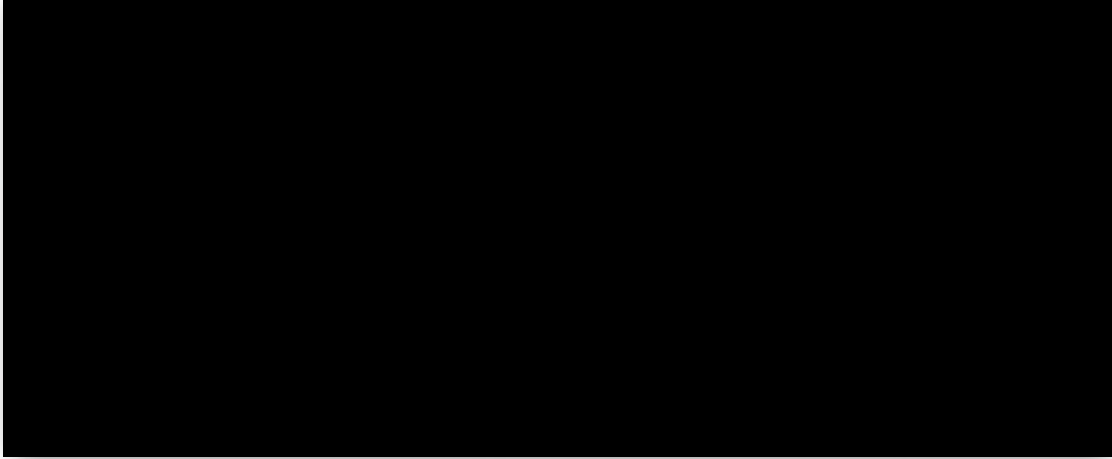


'953 Patent. Sonos's U.S. R&D-related rent expense relating to products that practice the '953 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D-related rent expense relating to products that practice the '953 patent totals \$ [REDACTED]. (SUMF 77.) These investments are broken down by product in the following table:

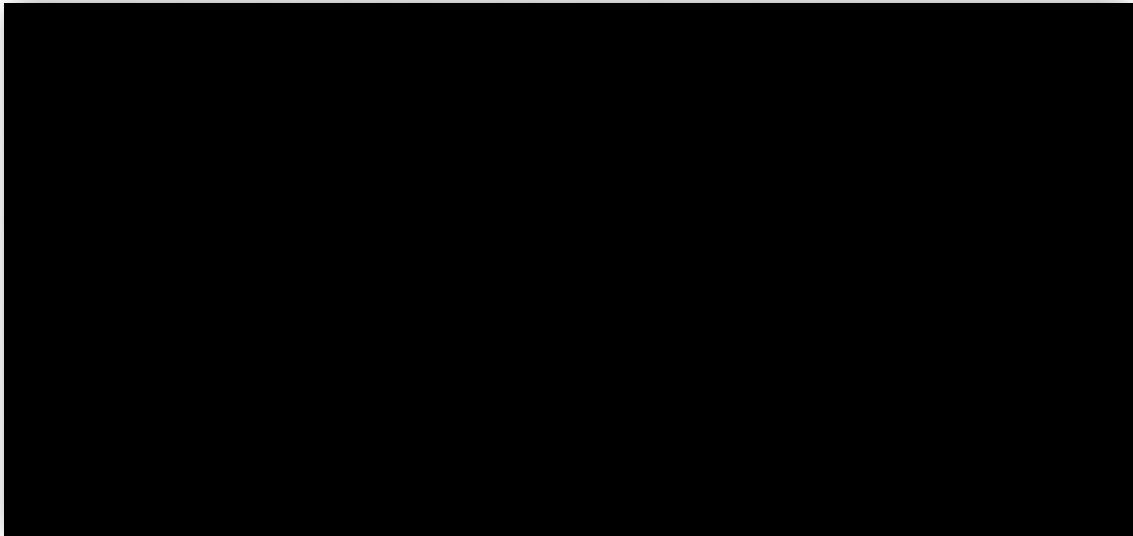


'959 Patent. Sonos's U.S. R&D-related rent expense relating to products that practice the '959 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D-related rent expense relating

to products that practice the '959 patent totals \$ [REDACTED]. (SUMF 78.) These investments are broken down by product in the following table:

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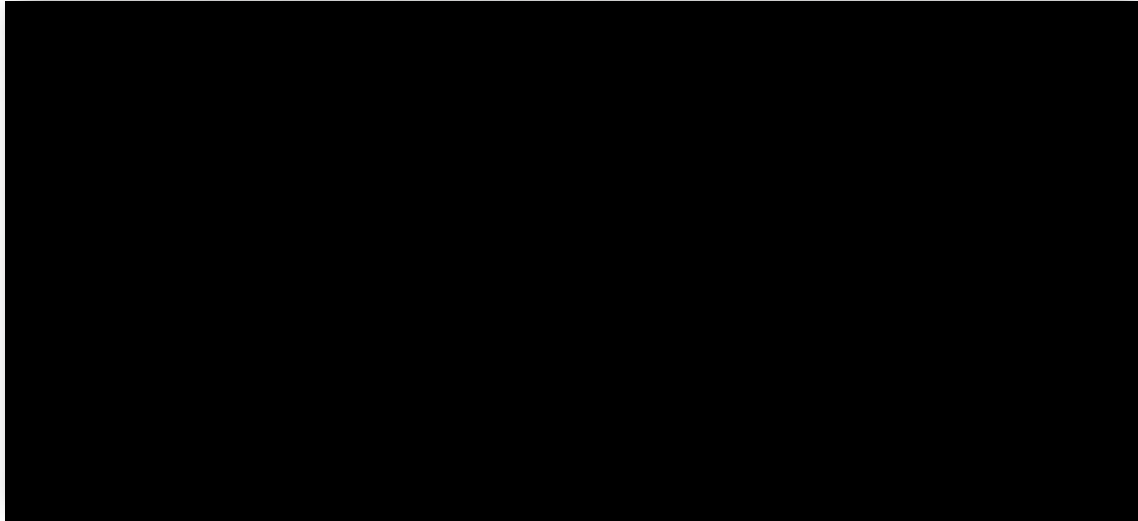
'949 Patent. Sonos's U.S. R&D-related rent expense relating to products that practice the '949 patent total \$ [REDACTED]. Sonos's non-U.S. R&D-related rent expense relating to products that practice the '949 patent totals \$ [REDACTED]. (SUMF 79.) These investments are broken down by product in the following table:

A large black rectangular redaction box covering the table content.

'896 Patent. Sonos's U.S. R&D-related rent expense relating to products that practice the '896 patent totals \$ [REDACTED]. Sonos's non-U.S. R&D-related rent expense plant

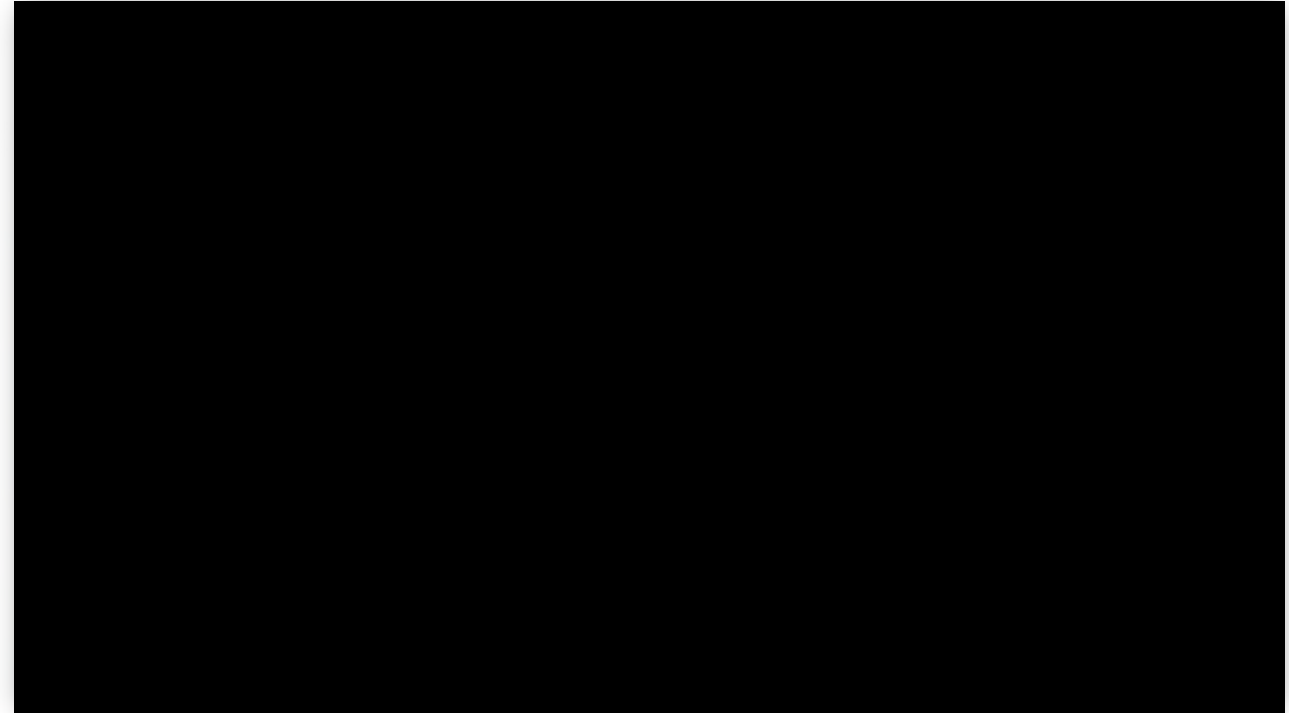
investments relating to products that practice the '896 patent totals \$ [REDACTED]. (SUMF 80.)

These investments are broken down by product in the following table:



4. Sonos Employed a Rigorous Methodology to Allocate Its Equipment Investments to the Asserted Patents

Sonos, through Mr. Milani, applied a rigorous methodology to allocate its equipment investments to DI Products and then summed those product-specific investments to calculate Sonos's total equipment investments per Asserted Patent. Mr. Milani outlined this methodology in the following flowchart:



(SUMF 83.)

The following steps summarize how Mr. Milani allocated Sonos's investments in equipment to specific Domestic Industry Products. The "E#" corresponds to Figure 76 above. (SUMF 84.) (A larger version of Fig. 76 is attached to Mr. Milani's report as Exhibit 5.3.) Mr. Milani provides an exhaustive explanation of these steps over the course of ten pages in his expert report. (Ex. 1 at 102-12.)

Step 1: Mr. Milani quantified Sonos's total U.S. investment in R&D equipment (fixed assets) for each of the previously discussed R&D cost centers (E1). (SUMF 84.)

Step 2: Mr. Milani allocated the investment in R&D equipment to hardware (E2) and software (E3). (SUMF 85.)

Step 3: On the software side (E3), Mr. Milani allocated the investment to player-side software (E4) and controller software (E5). (SUMF 86.)

Step 4: Mr. Milani combined the investments relating to hardware (E2) and the investments relating to player-side software (E4) to determine the total investments in hardware and player-side software, to be further apportioned (E6). (SUMF 87.)

Step 5: Mr. Milani allocated a portion of the combined investment in hardware and player-side software (E6) to DI Products (E7 & E14) and Non-DI Products (E8). (SUMF 88.)

Step 6: Mr. Milani allocated the remaining portion of the combined investment in hardware and player-side software (E6) to incubation and sustaining engineering for DI Products (E9) and non-DI Products (E10). (SUMF 89.)

Step 7: Mr. Milani allocated investments relating to controller software (E5) to DI Products interfacing with the controller (E12) and non-DI Products interfacing with the controller (E11). (SUMF 90.)

Step 8: Mr. Milani allocated investments relating to DI Products interfacing with the controller (E12) to shared and operating system specific code (E13). (SUMF 91.)

Step 9: Mr. Milani grouped investments in DI Products (E14) and investments allocated to shared and operating-system specific code (E13) to each of the asserted patents, as reflected in Section 12.8 of this report. (SUMF 92.)

Mr. Milani also performed these steps for Sonos's non-U.S. investment in R&D Equipment, as reflected in the "R&D Equipment Investment Allocation Framework – Non-U.S." which is attached to his report as Exhibit 5.4. (SUMF 93.)

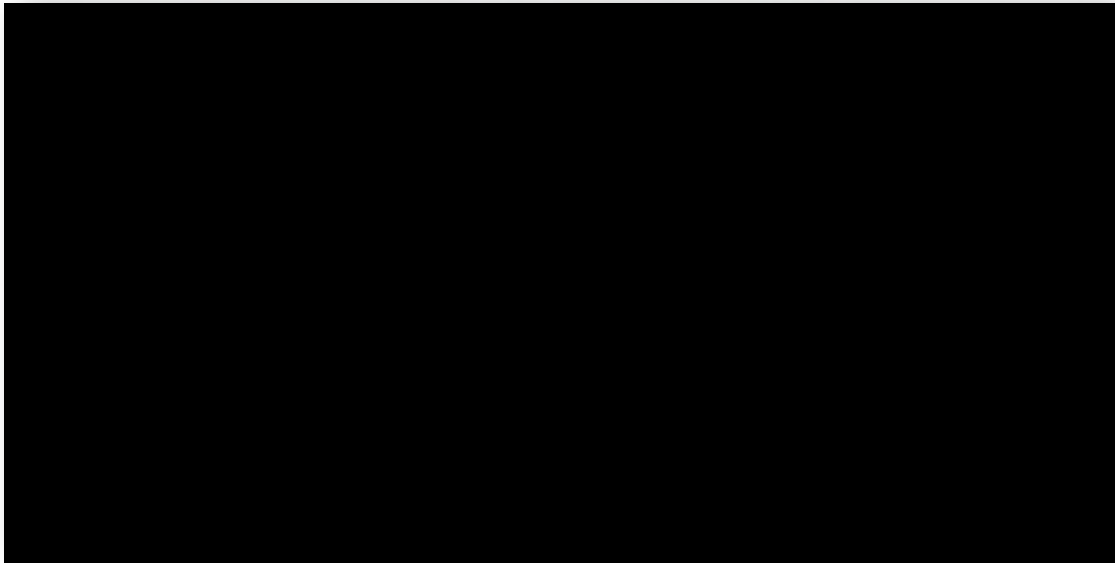
Sonos's quantification of its equipment-related investments is conservative, because it only includes investments in assets that were active as of 12/31/19 and therefore excludes investments in assets that were active at other points in time during the DI Time period. Sonos's

equipment-related investments are also conservative because they reflect allocations based on the conservative quantification of R&D labor that was previously discussed. (SUMF 94.)

5. Sonos's Investments in Its Equipment

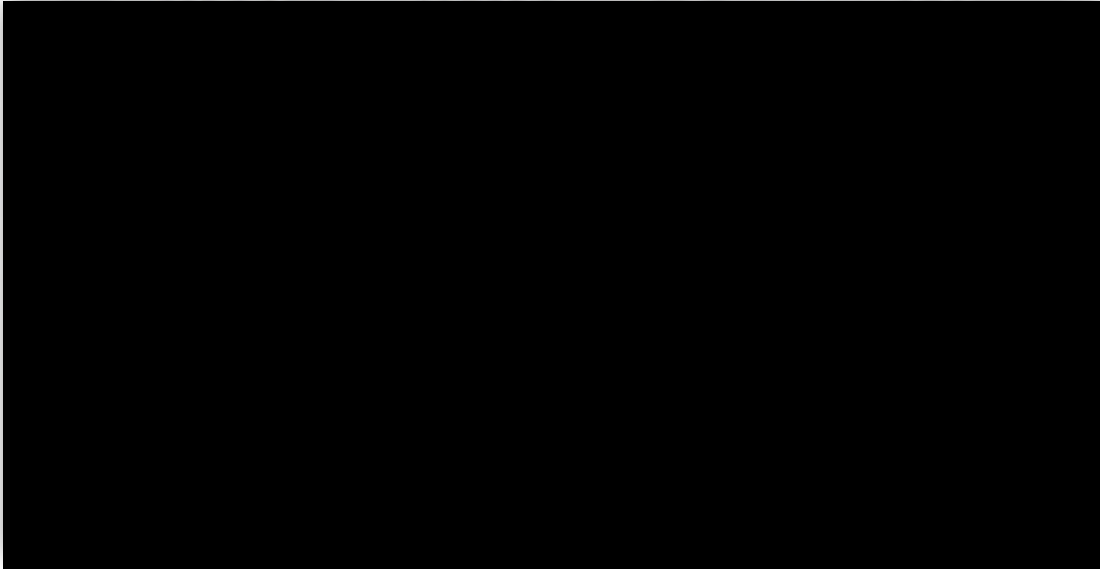
Sonos has invested millions of dollars in equipment used for R&D on the DI Products. Sonos allocates these investments to products that practice each Asserted Patent in each of the below tables. The left side of each table calculates U.S. equipment investments allocable to the DI Products, while the right side of each table calculates *non-US* equipment investments allocable to the DI Products.

'258 Patent. Sonos's U.S. equipment investments relating to products that practice the '258 patent totals \$ [REDACTED]. Sonos's non-U.S. equipment investments relating to products that practice the '258 patent totals \$ [REDACTED]. (SUMF 95.) These investments are broken down by product in the following table:

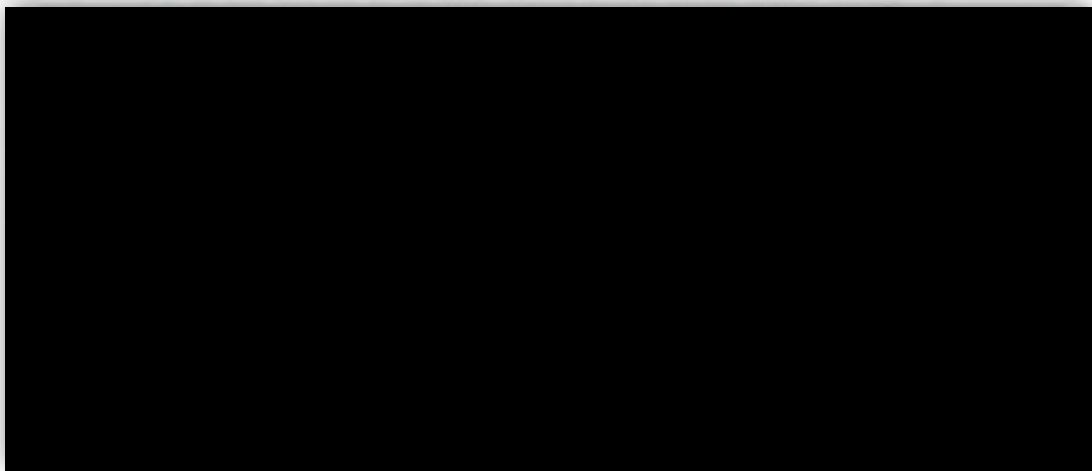


'953 Patent. Sonos's U.S. R&D equipment investments relating to products that practice the '953 patent totals \$ [REDACTED]. Sonos's non-U.S. equipment investments relating to

products that practice the '953 patent totals \$ [REDACTED]. (SUMF 96.) These investments are broken down by product in the following table:

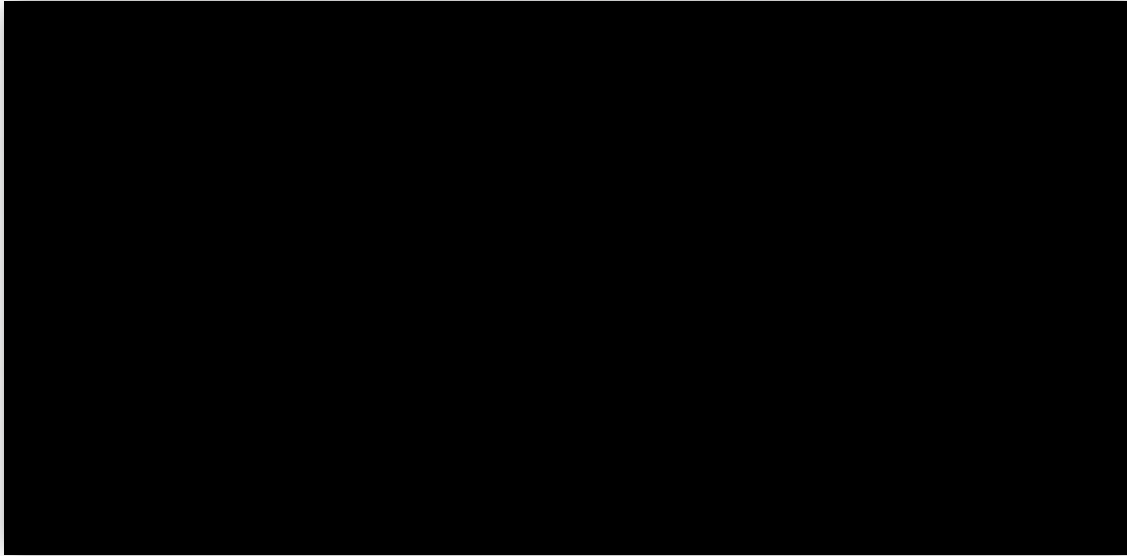
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'959 Patent. Sonos's U.S. R&D equipment investments relating to products that practice the '959 patent totals \$ [REDACTED]. Sonos's non-U.S. equipment investments relating to products that practice the '959 patent totals \$ [REDACTED]. (SUMF 97.) These investments are broken down by product in the following table:

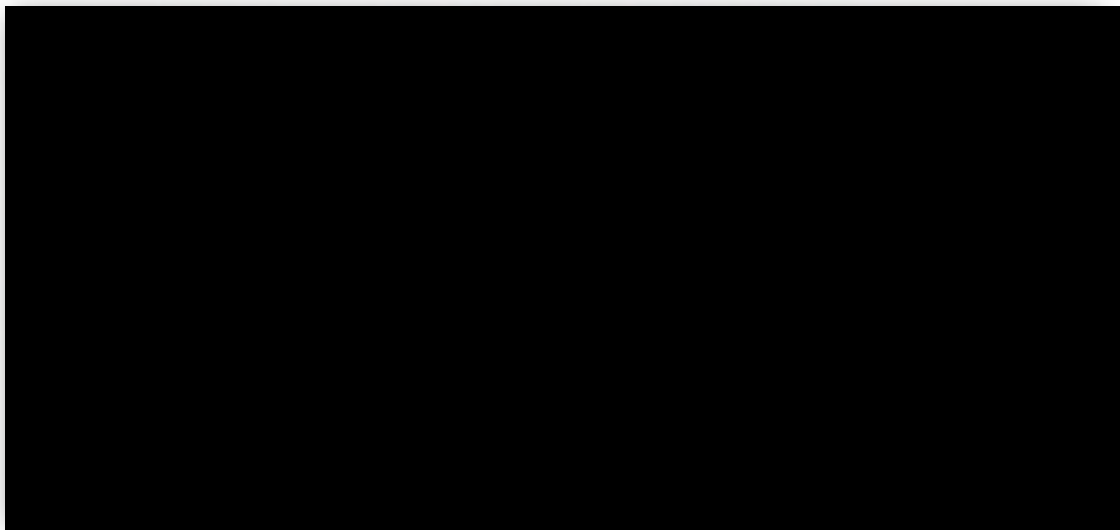
A large black rectangular redaction box covering the table content.

'949 Patent. Sonos's U.S. R&D equipment investments relating to products that practice the '949 patent totals \$ [REDACTED]. Sonos's non-U.S. equipment investments relating to

products that practice the '949 patent totals \$ [REDACTED]. (SUMF 98.) These investments are broken down by product in the following table:

A large black rectangular redaction box covering the table content.

'896 Patent. Sonos's U.S. R&D equipment investments relating to products that practice the '896 patent totals \$ [REDACTED]. Sonos's non-U.S. equipment investments relating to products that practice the '896 patent totals \$ [REDACTED]. (SUMF 99.) These investments are broken down by product in the following table:

A large black rectangular redaction box covering the table content.

6. Sonos's Investments in Plants and Equipment are Significant

Sonos's domestic investments in plants and equipment allocated to the DI Products are quantitatively and qualitatively significant in the context of Sonos's total investments in R&D and in comparison to Sonos's foreign expenditures on R&D allocated to the same products.

Certain Printing Devices, Inv. No. 337-TA-690, Comm'n Op. at 27-28 (Feb. 17, 2011).

a. Significance of Sonos's Investments in Plants

Over the DI Time Period, Sonos invested \$ [REDACTED] in rent for U.S. plants relating to the design and development of the DI hardware, player-side software, and DI controllers, which represents the following:

- [REDACTED]% of Sonos's total U.S. rent expenditures relating to R&D during that period; and
- More than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on rent expenditures relating to R&D during that period.

(SUMF 110.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. rent expenditures for the design and development of the DI hardware and player-side software, which represents the following:

- [REDACTED]% of Sonos's total U.S. rent expenditures relating to R&D during that period; and
- More than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on rent expenditures relating to R&D during that period.

(SUMF 111.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. rent expenditures for DI controllers, which represents the following:

- [REDACTED]% of Sonos's total U.S. rent expenditures relating to R&D during that period;
- More than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on rent expenditures relating to R&D during that period.

(SUMF 112.)

'258 Patent. Over the DI Time Period, Sonos's investments in U.S. rent relating to R&D for the DI products that practice the '258 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. rent relating to R&D for the DI products that practice the '258 patent during that period. (SUMF 113.)

'953 Patent. Over the DI Time Period, Sonos's investments in U.S. rent relating to R&D for the DI products that practice the '953 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. rent relating to R&D for the DI products that practice the '953 patent during that period. (SUMF 114.)

'959 Patent. Over the DI Time Period, Sonos's investments in U.S. rent relating to R&D for the DI products that practice the '959 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. rent relating to R&D for the DI products that practice the '959 patent during that period. (SUMF 115.)

'949 Patent. Over the DI Time Period, Sonos's investments in U.S. rent relating to R&D for the DI products that practice the '949 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. rent relating to R&D for the DI products that practice the '949 patent during that period. (SUMF 116.)

'896 Patent. Over the DI Time Period, Sonos's investments in U.S. rent relating to R&D for the DI products that practice the '896 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. rent relating to R&D for the DI products that practice the '896 patent during that period. (SUMF 117.)

b. Significance of Sonos's Investments in Equipment

Over the DI Time Period, Sonos invested \$ [REDACTED] in acquiring U.S. R&D equipment relating to the design and development of the DI hardware, player-side software, and DI controllers, which represents the following:

- [REDACTED]% of Sonos's total U.S. investments in acquiring R&D equipment during that period;
- More than [REDACTED] times the \$ [REDACTED] Sonos invested outside the U.S. in acquiring R&D equipment during that period.

(SUMF 118.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in acquiring U.S. R&D equipment relating to the design and development of the DI hardware and player-side software, which represents the following:

- [REDACTED]% of Sonos's total U.S. investments in acquiring R&D equipment during that period;
- [REDACTED]% of Sonos's total U.S. R&D investments in acquiring R&D equipment for DI and non-DI player and player-side software and cancelled projects during that period;
- More than [REDACTED] times the \$ [REDACTED] Sonos invested outside the U.S. in acquiring R&D equipment relating to the design and development of the DI hardware and player-side software (from inception through launch) during that period.

(SUMF 119.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. R&D equipment relating to DI controllers, which represents more than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on R&D equipment relating to DI controllers during that period. (SUMF 120.)

'258 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D equipment relating to the DI Products that practice the '258 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D equipment relating to the DI Products that practice the '258 patent during that period. (SUMF 121.)

'953 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D equipment relating to the DI Products that practice the '953 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D equipment relating to the DI Products that practice the '953 patent during that period. (SUMF 122.)

'959 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D equipment relating to the DI Products that practice the '959 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D equipment relating to the DI Products that practice the '959 patent during that period. (SUMF 123.)

'949 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D equipment relating to the DI Products that practice the '949 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D equipment relating to the DI Products that practice the '949 patent during that period. (SUMF 124.)

'896 Patent. Over the DI Time Period, Sonos's investments in U.S. R&D equipment relating to the DI Products that practice the '896 patent total \$ [REDACTED]. Those investments are more than [REDACTED] times the \$ [REDACTED] Sonos invested in non-U.S. R&D equipment relating to the DI Products that practice the '896 patent during that period. (SUMF 125.)

Over the DI Time Period, Sonos invested \$ [REDACTED] in U.S. R&D equipment relating to sustaining engineering and incubation of existing and future DI Products, which represents the following:

- [REDACTED] % of Sonos's total investments in R&D equipment during that period;
- More than [REDACTED] times the \$ [REDACTED] Sonos spent outside the U.S. on R&D equipment relating to sustaining engineering and incubation during that period.

(SUMF 126.)

VI. CONCLUSION

For the forgoing reasons, Sonos respectfully requests that the Chief ALJ render a summary determination that the economic prong is satisfied for all Asserted Patents under 19 U.S.C. § 1337(a)(2) and (3)(A)-(B).

Dated: December 4, 2020

Respectfully submitted,

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Attorneys for Complainant Sonos, Inc.

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Charles E. Bullock
Chief Administrative Law Judge**

In the Matter of

**CERTAIN AUDIO PLAYERS AND
CONTROLLERS, COMPONENTS
THEREOF, AND PRODUCTS
CONTAINING SAME**

Investigation No. 337-TA-1191

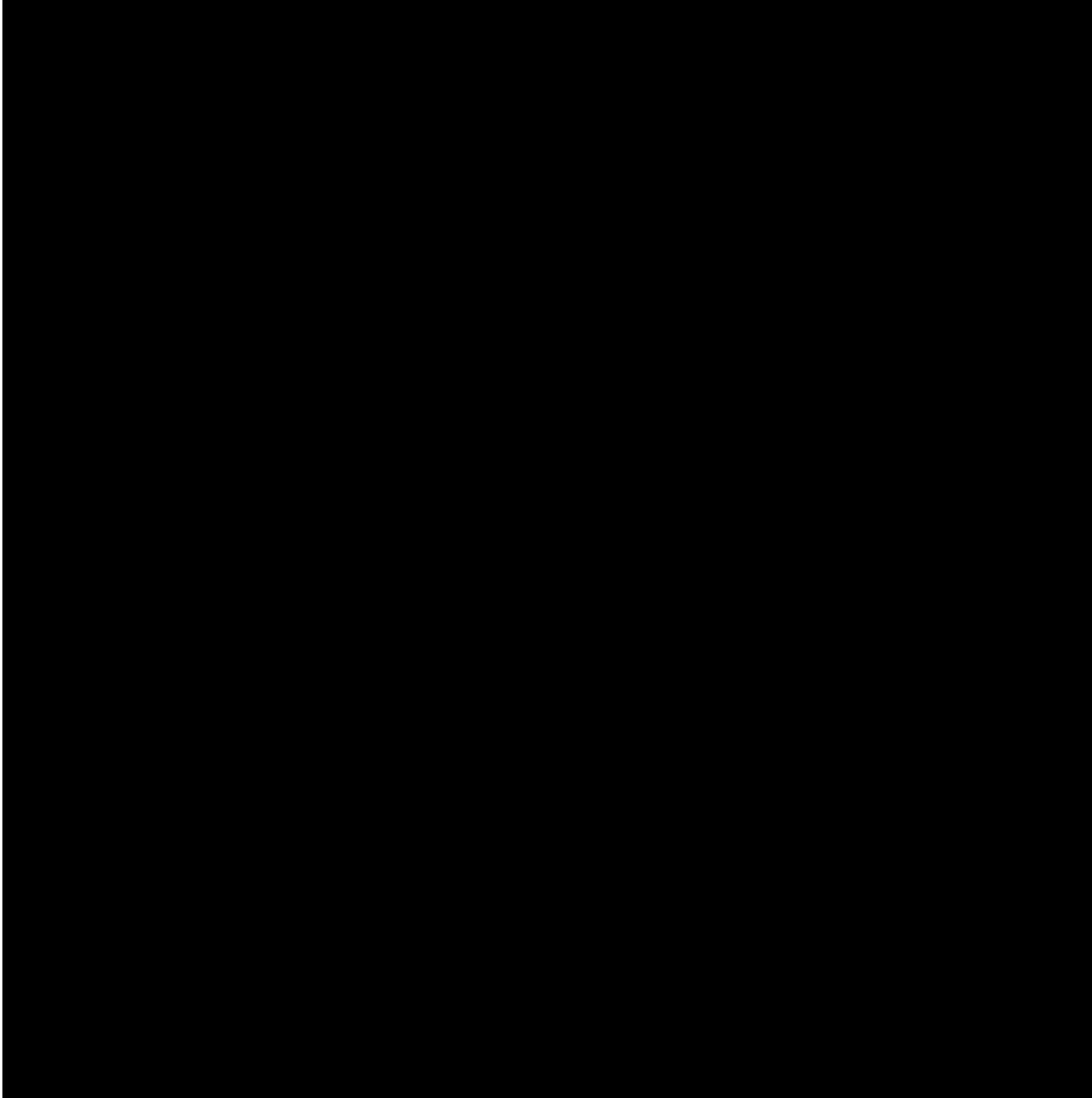
**STATEMENT OF UNDISPUTED MATERIAL FACTS
IN SUPPORT OF**

**COMPLAINANT SONOS, INC.'S MOTION FOR SUMMARY DETERMINATION
THAT THE DOMESTIC INDUSTRY ECONOMIC PRONG IS SATISFIED AS TO ALL
ASSERTED PATENTS**

Pursuant to Ground Rule 3.3, Complainant Sonos, Inc. ("Sonos") hereby submits this statement of the material facts as to which there is no genuine issue and which entitle Sonos to a summary determination as a matter of law that the economic prong of the domestic industry requirement is satisfied with respect to all asserted patents.

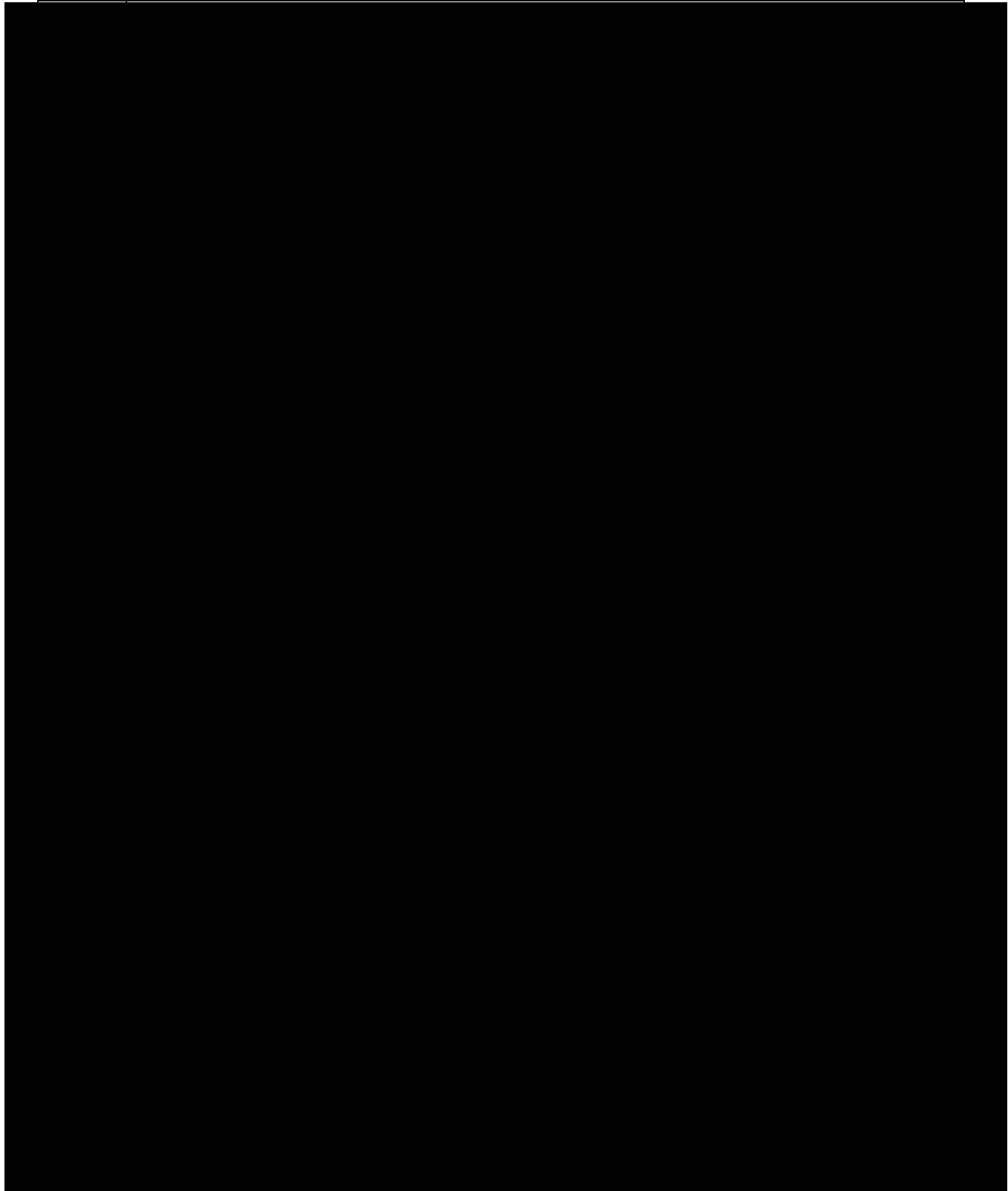
I. GENERAL AND BACKGROUND FACTS

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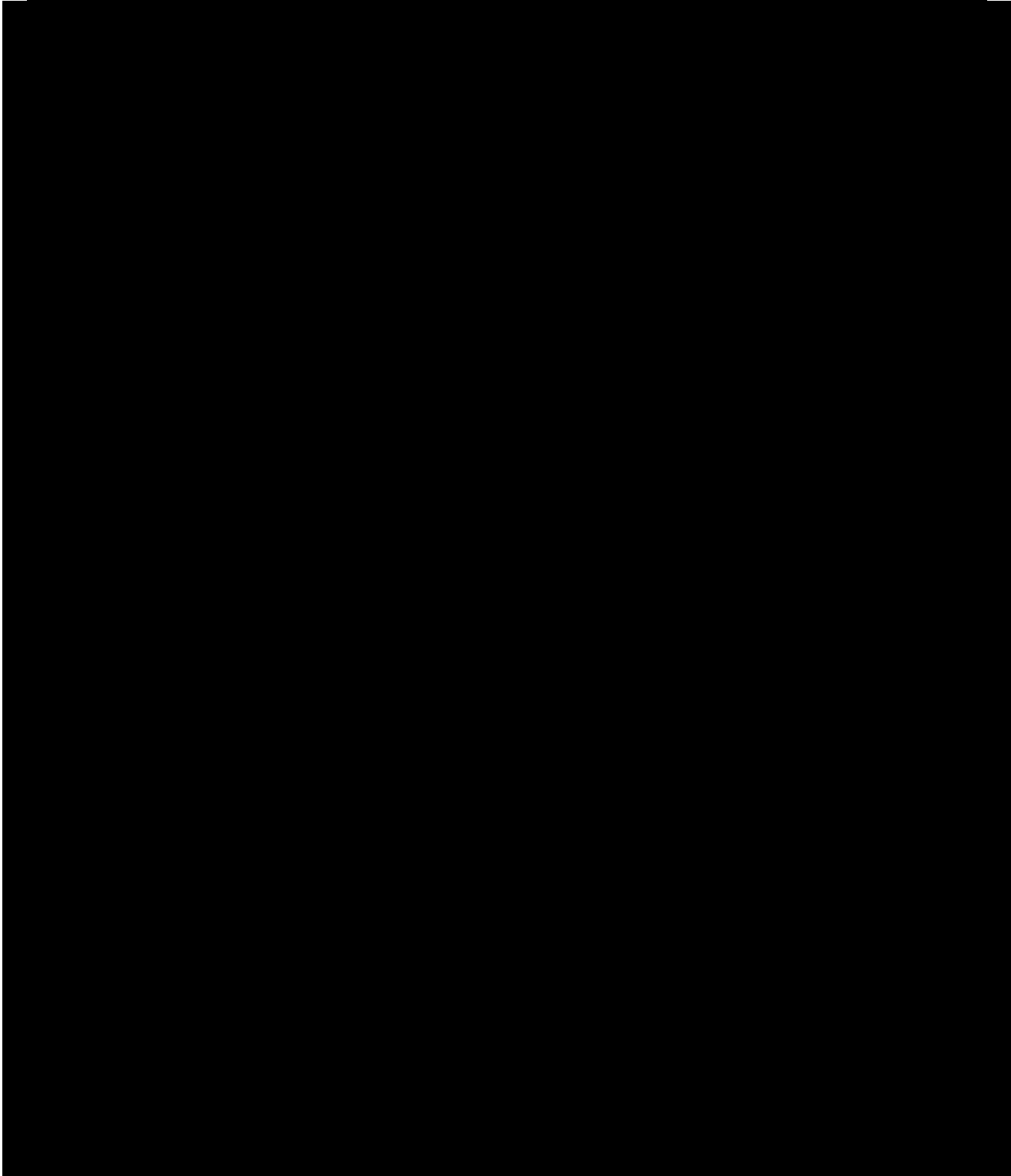
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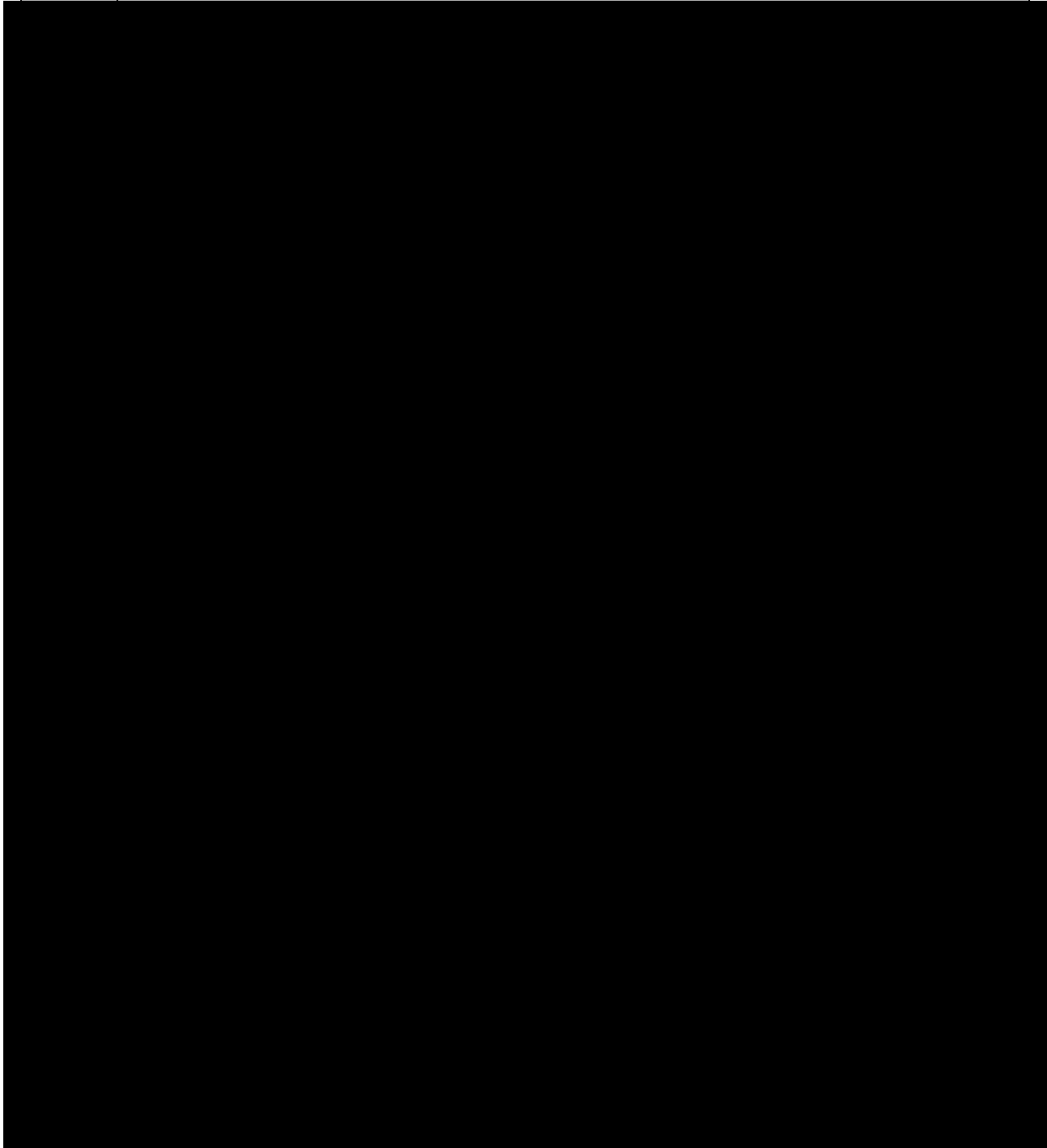


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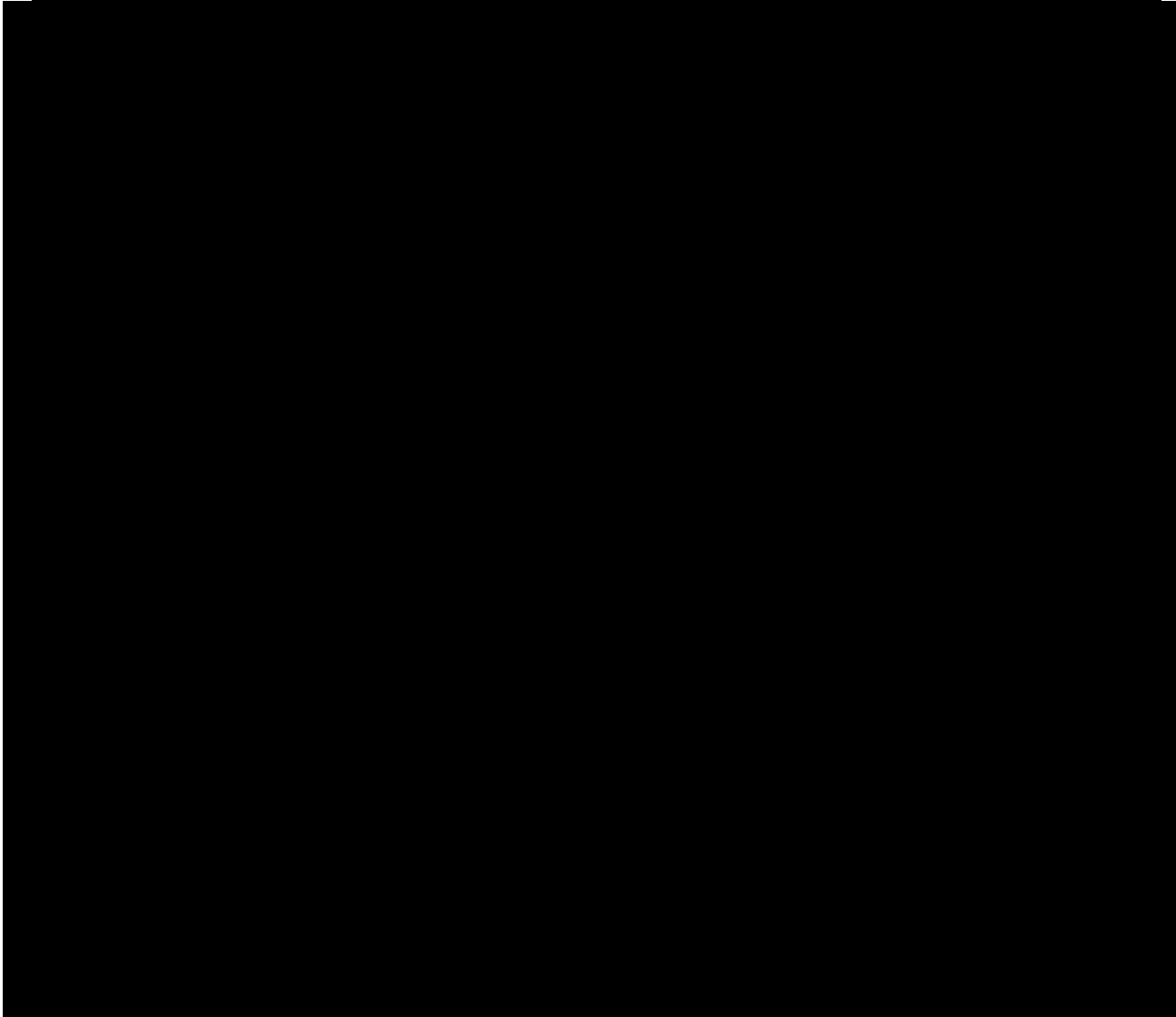


II. INVESTMENTS IN LABOR

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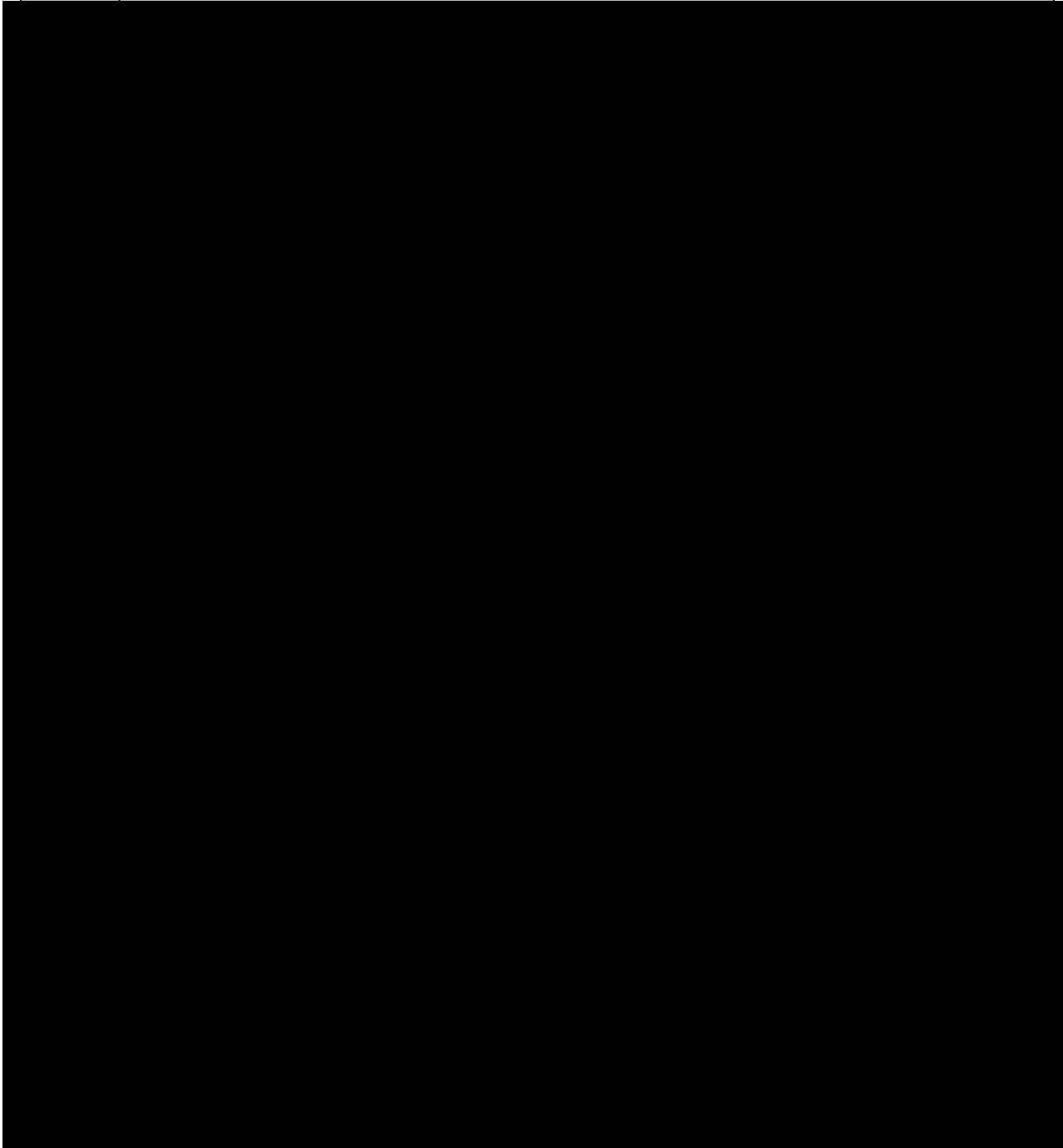
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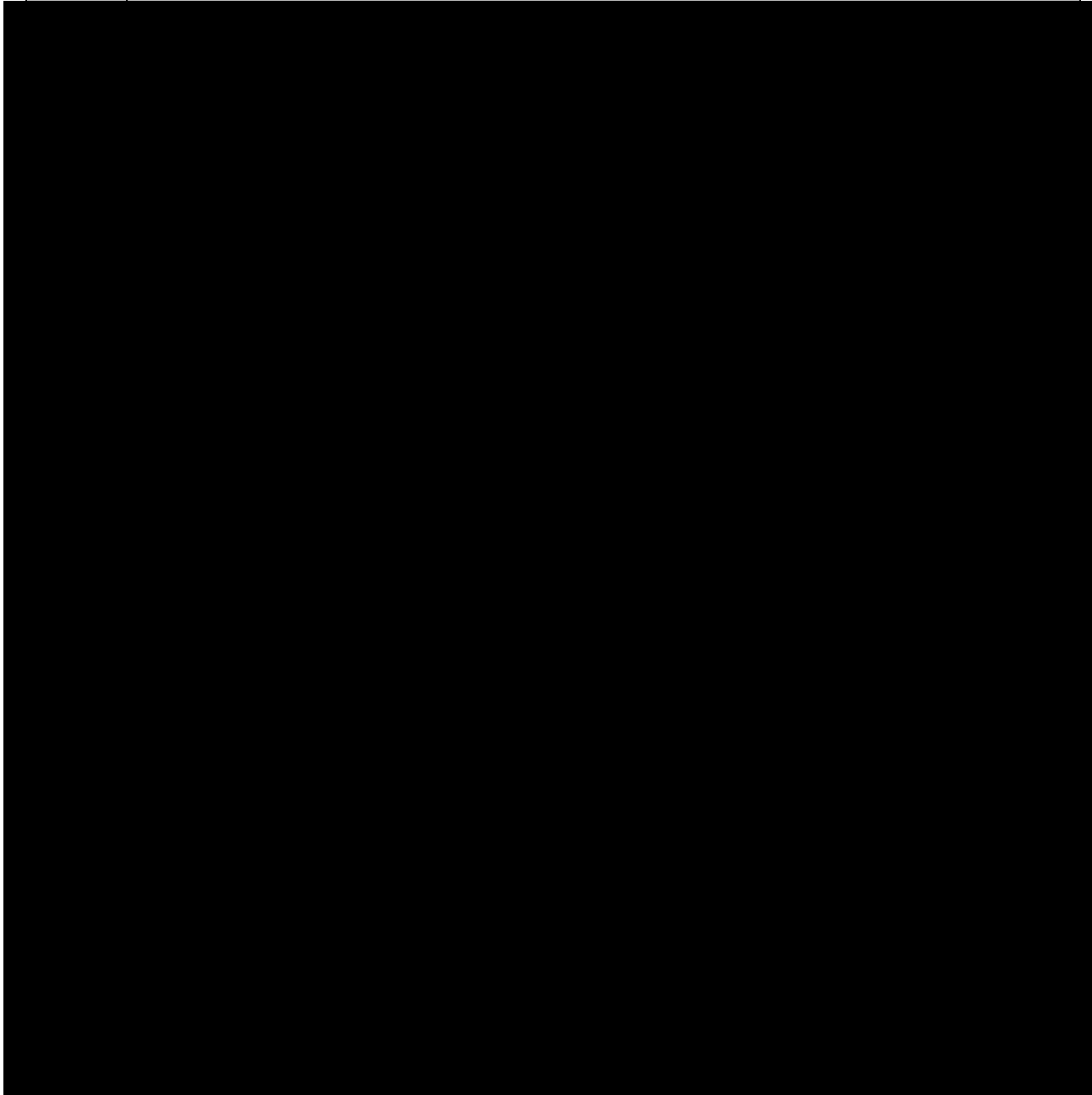
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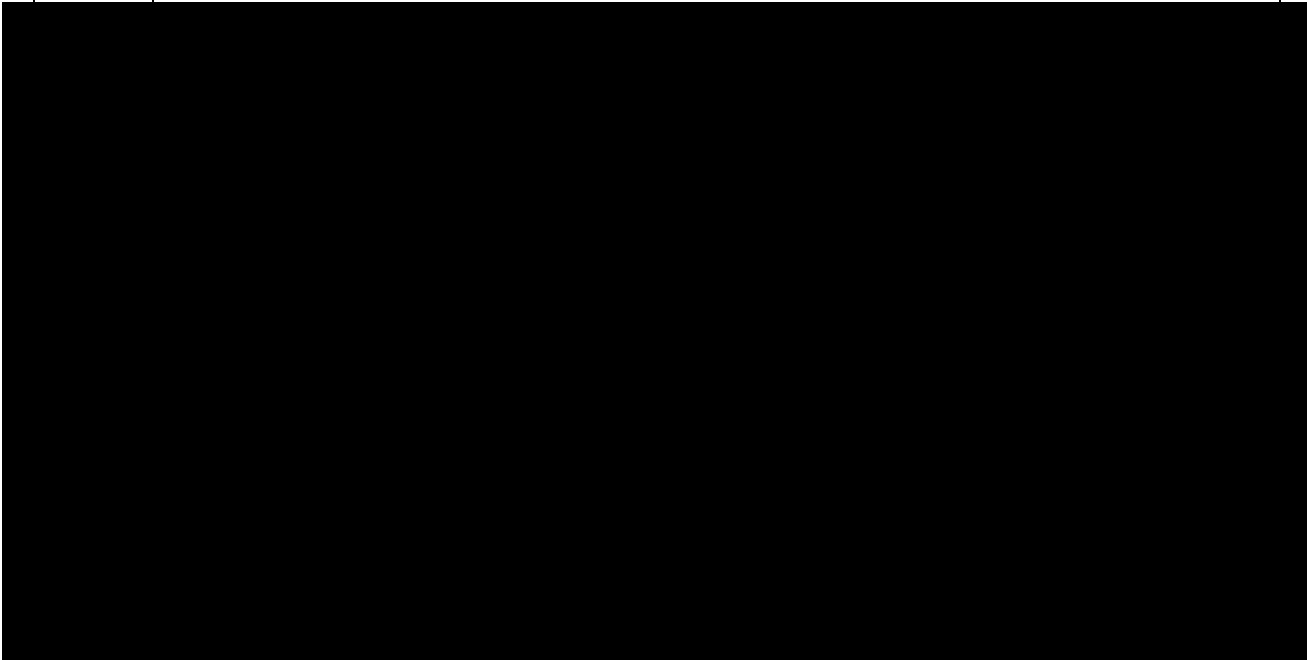


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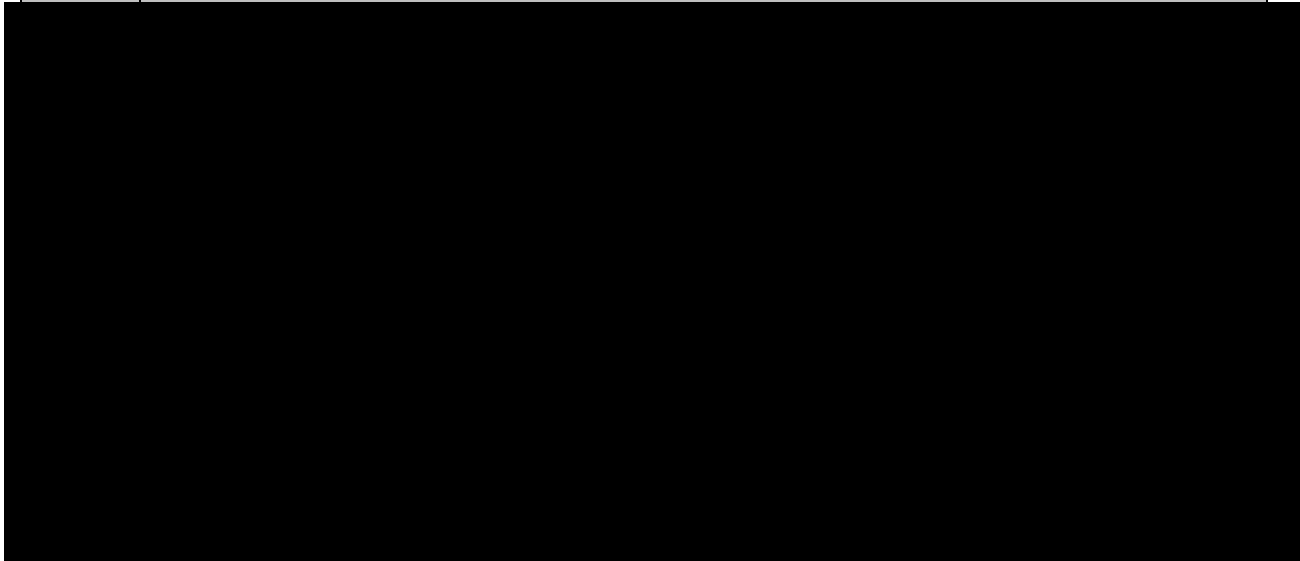


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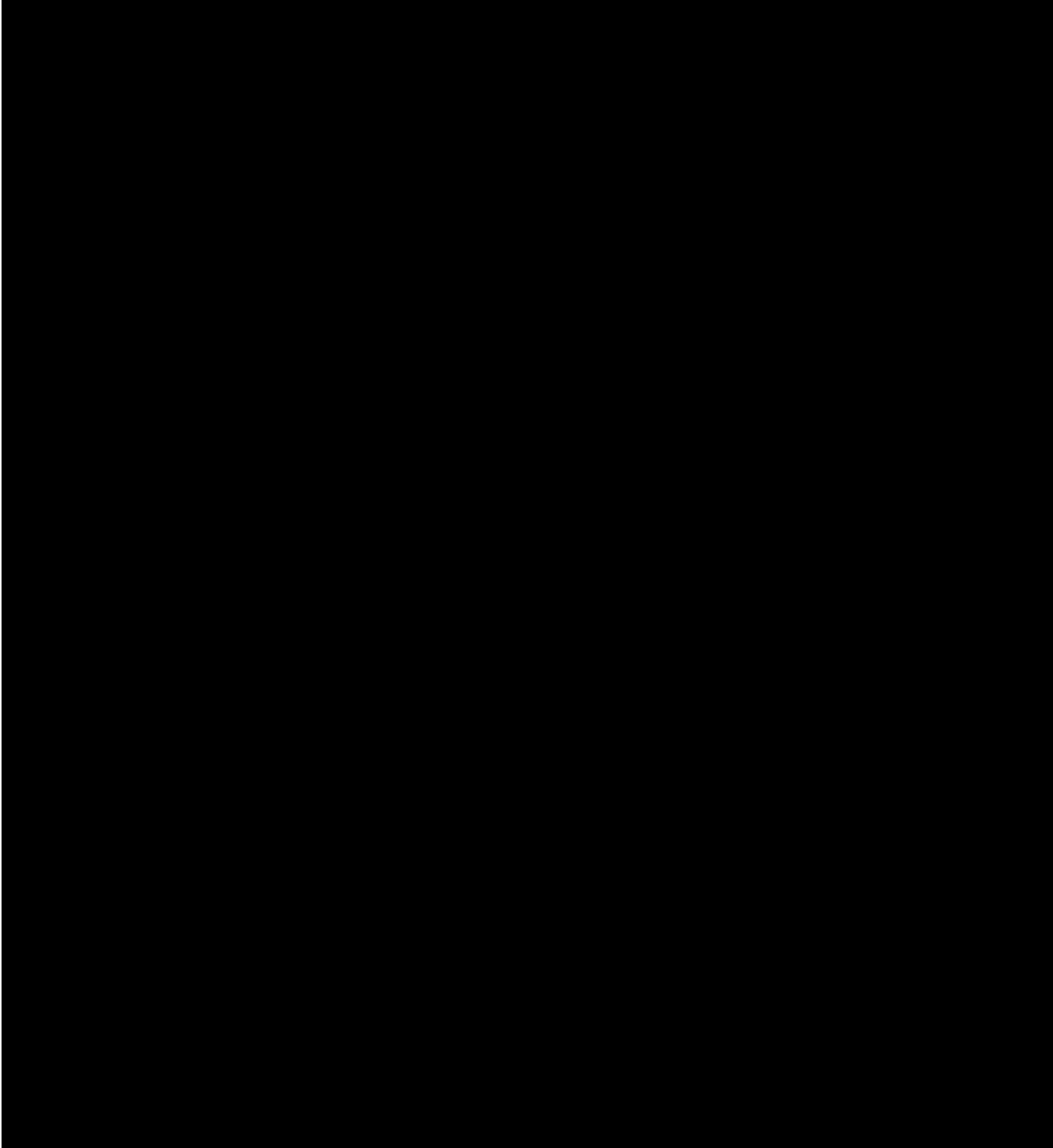
III. INVESTMENTS IN PLANTS

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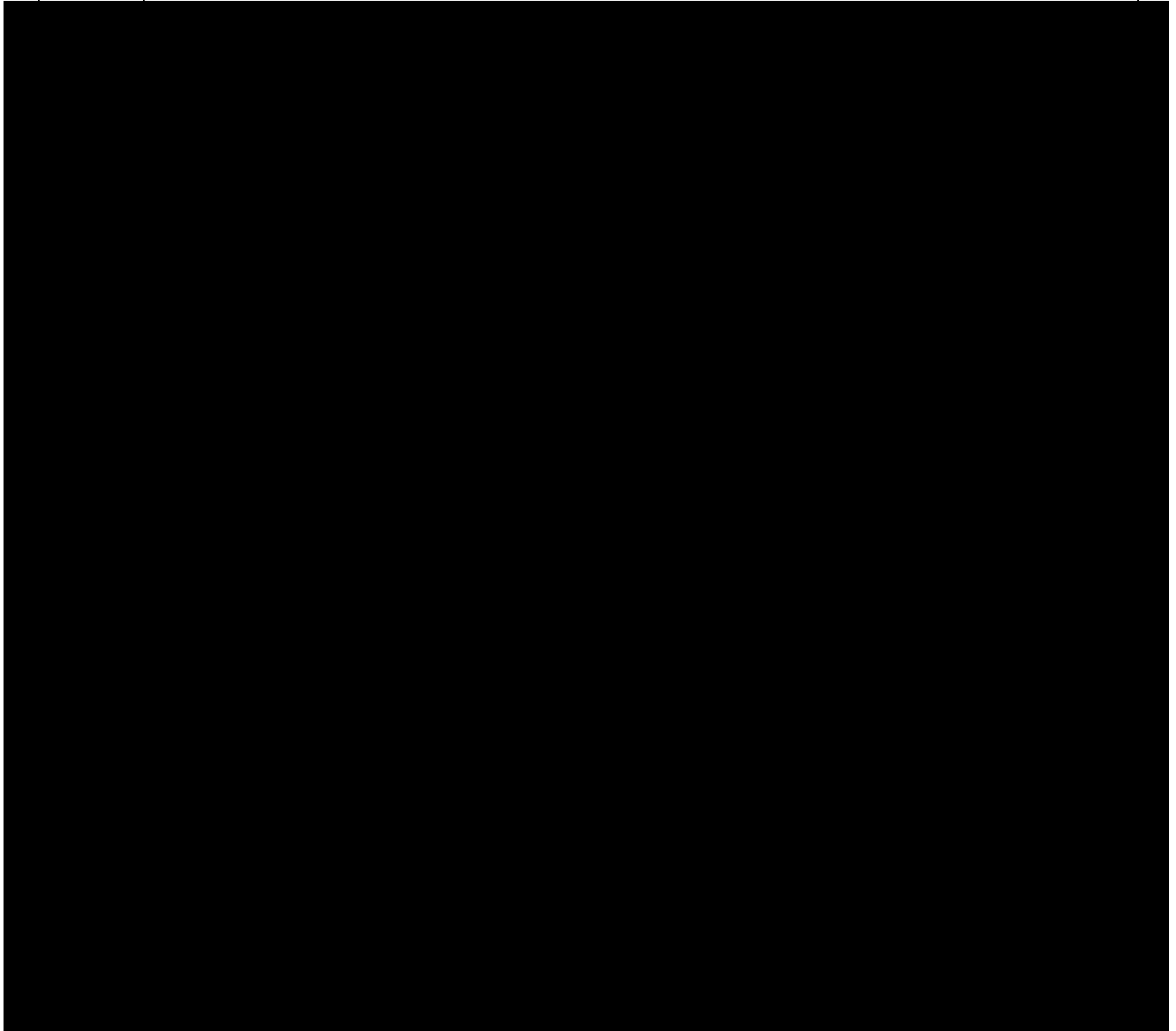
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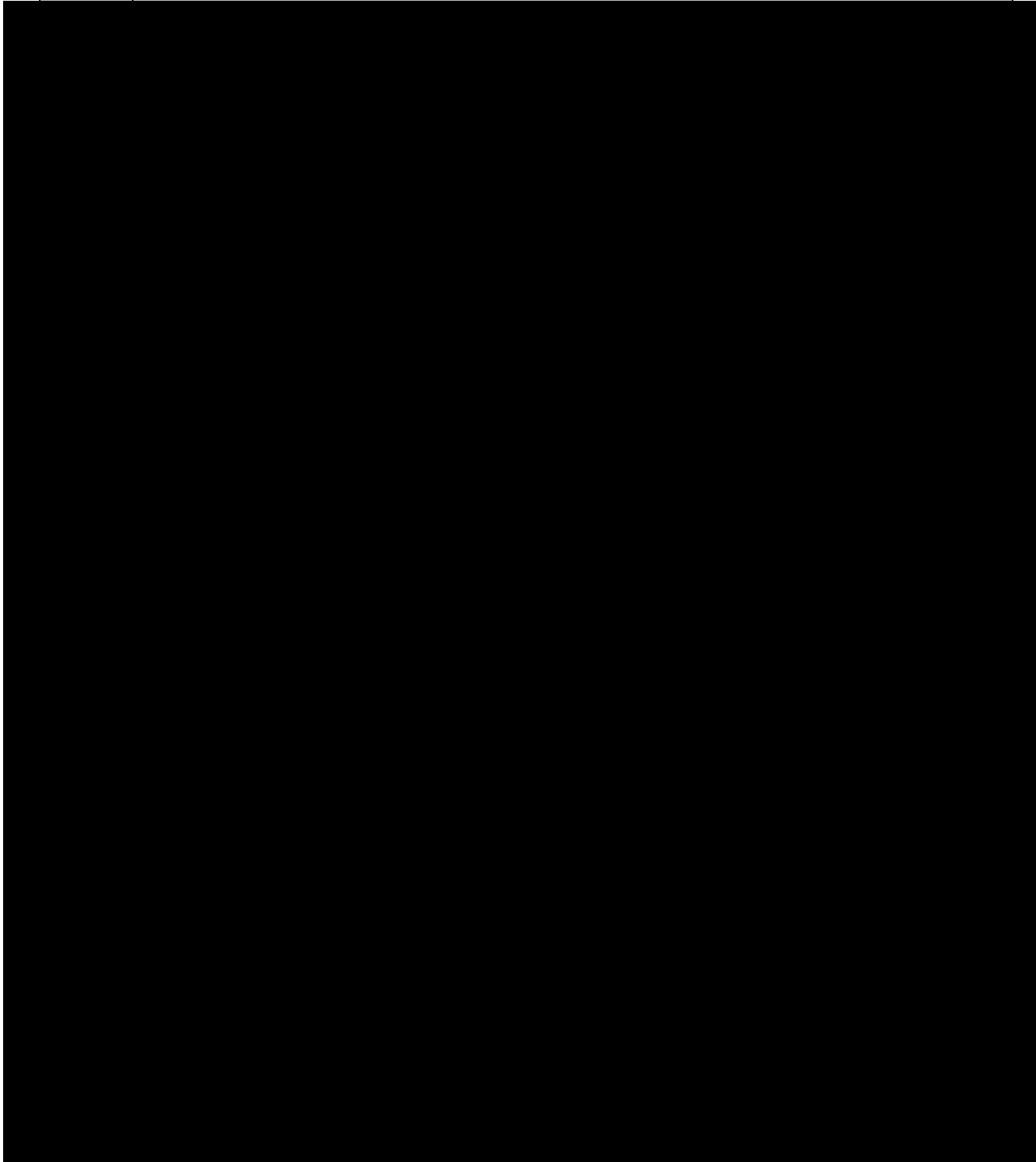
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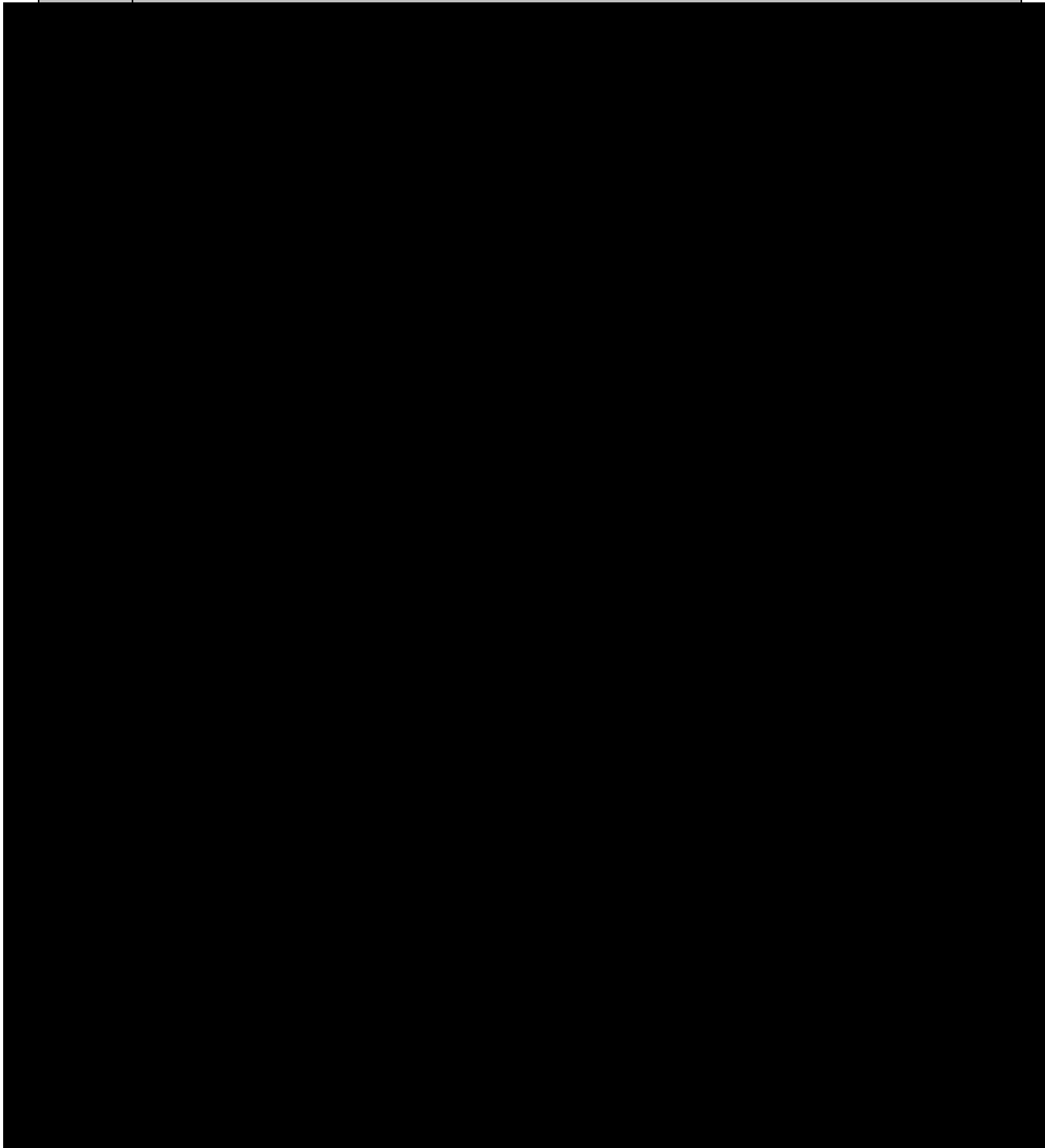
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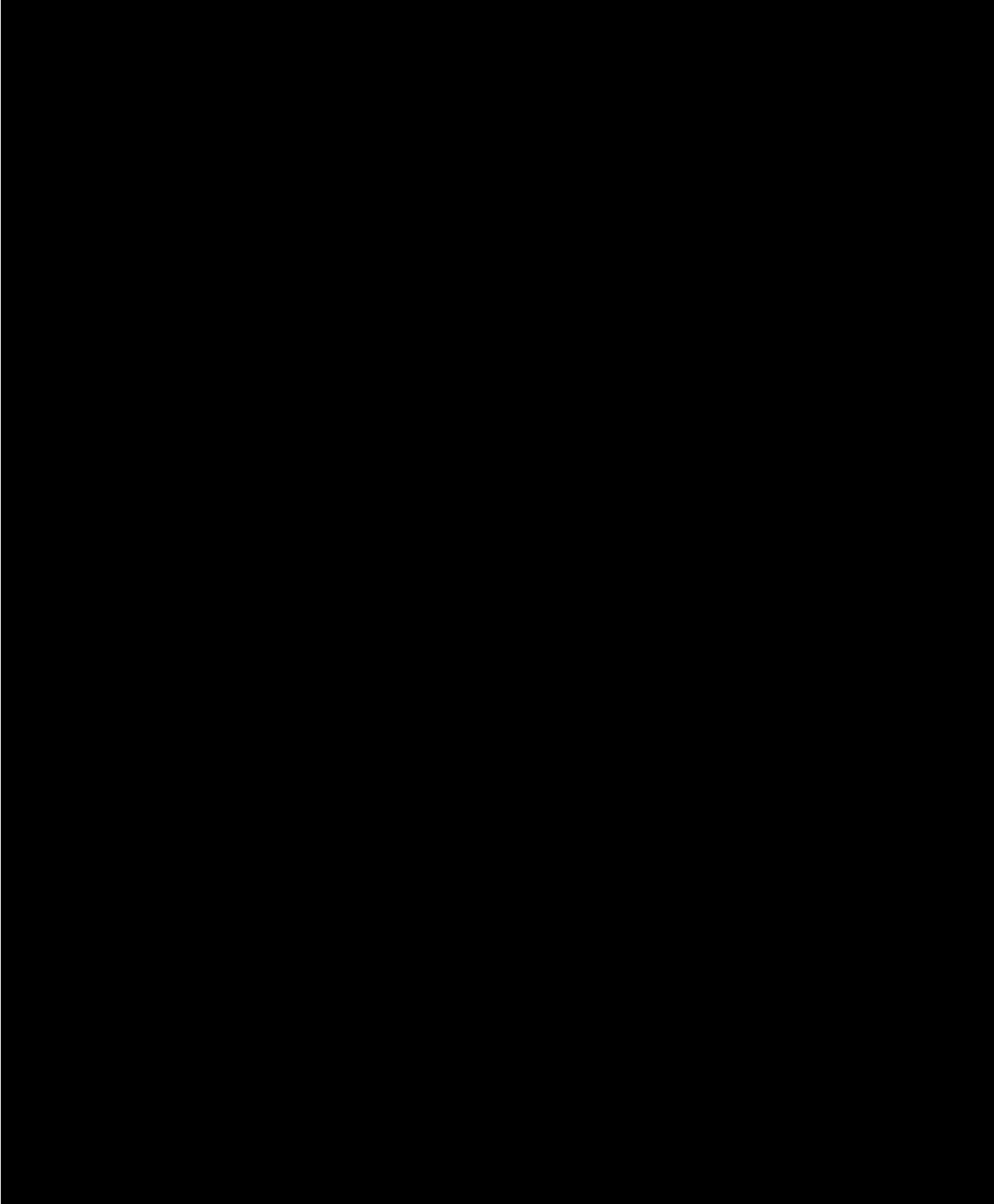
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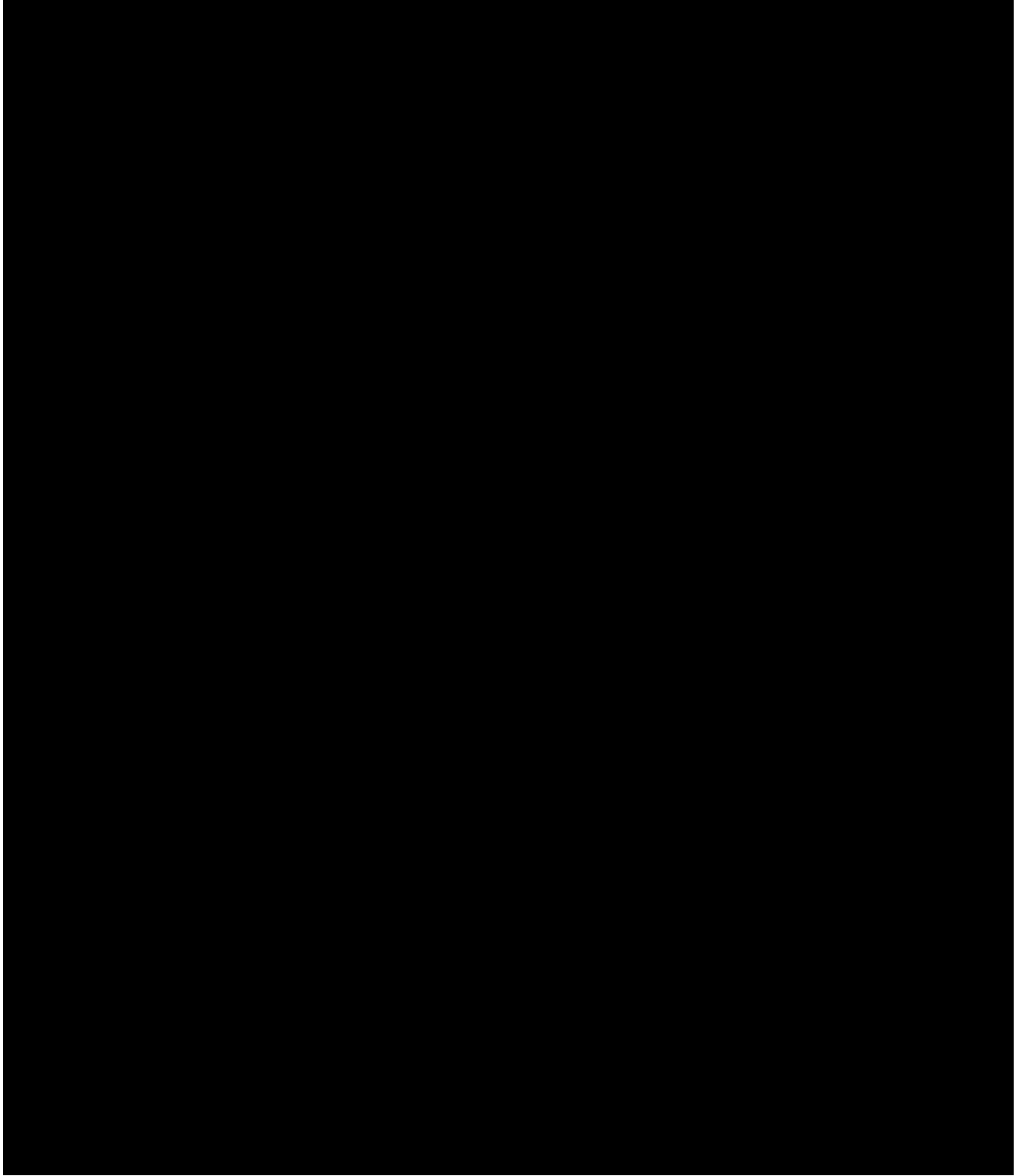
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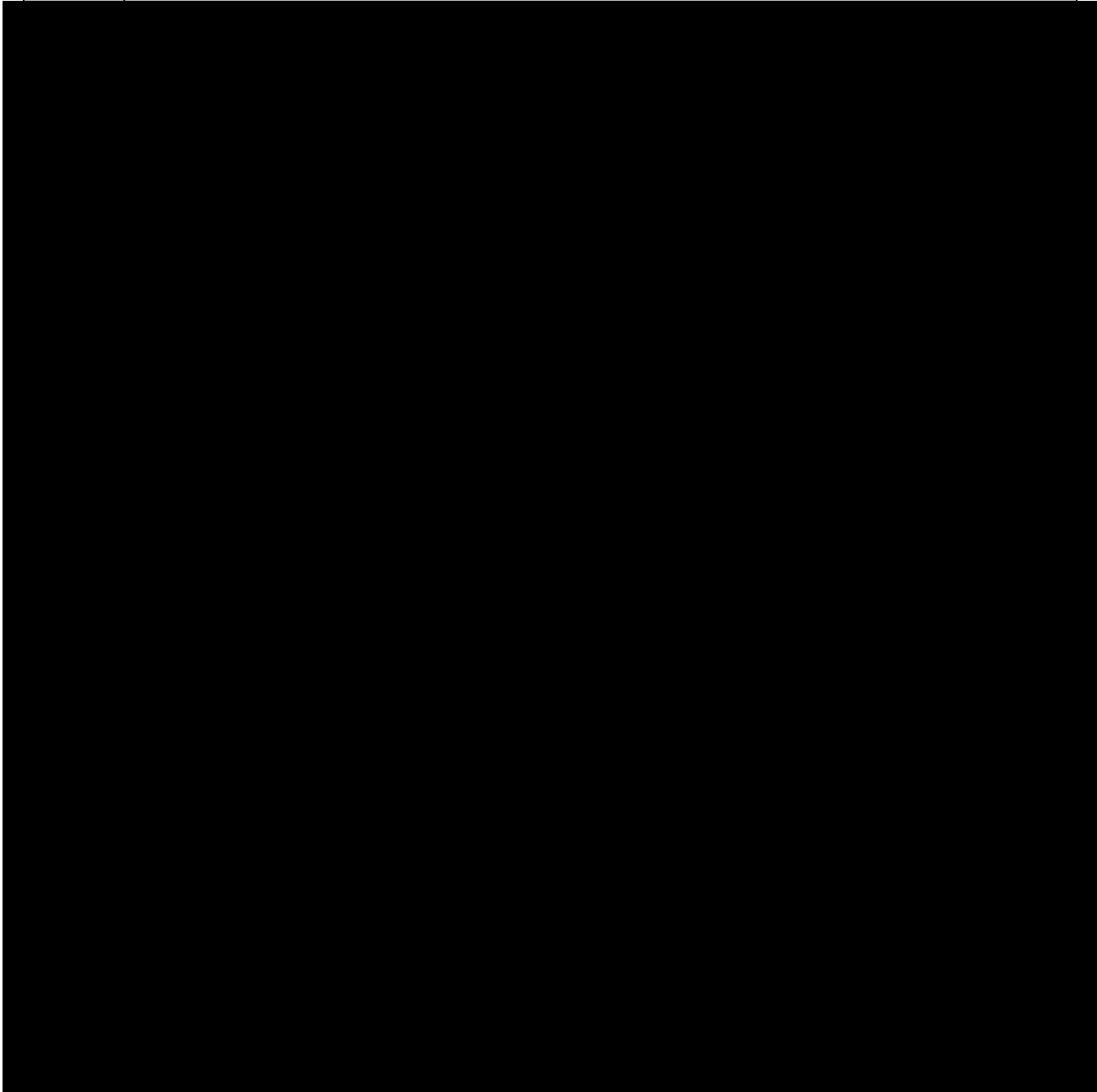
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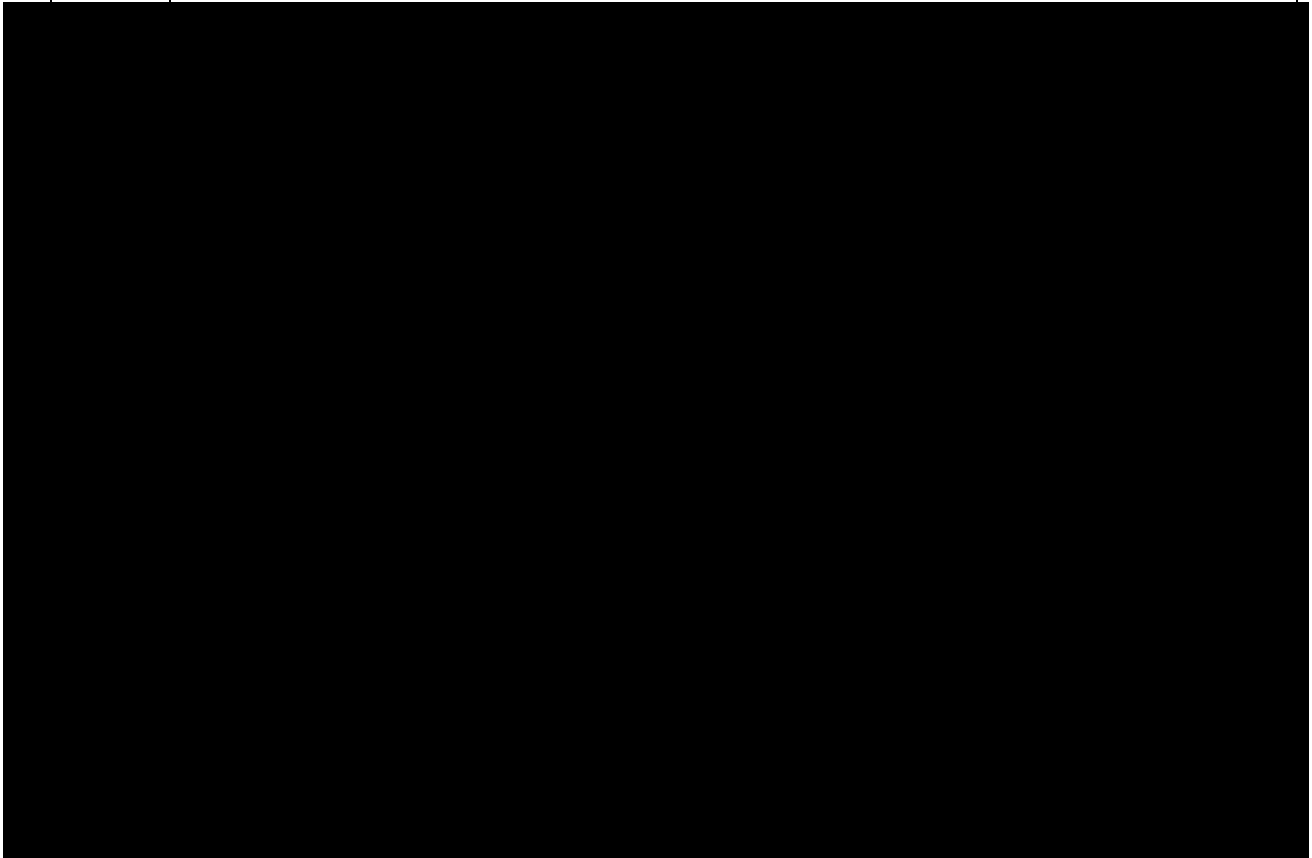
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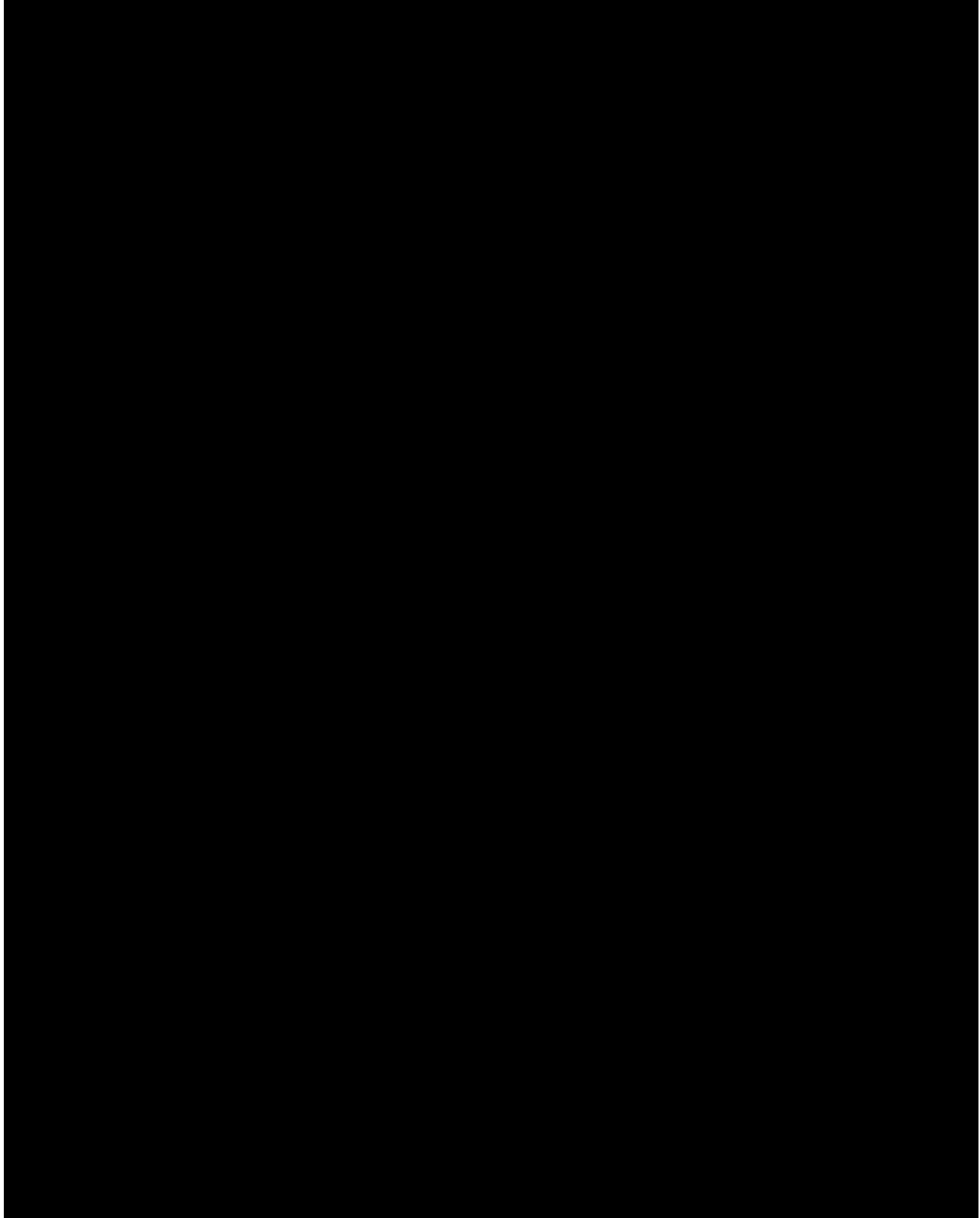
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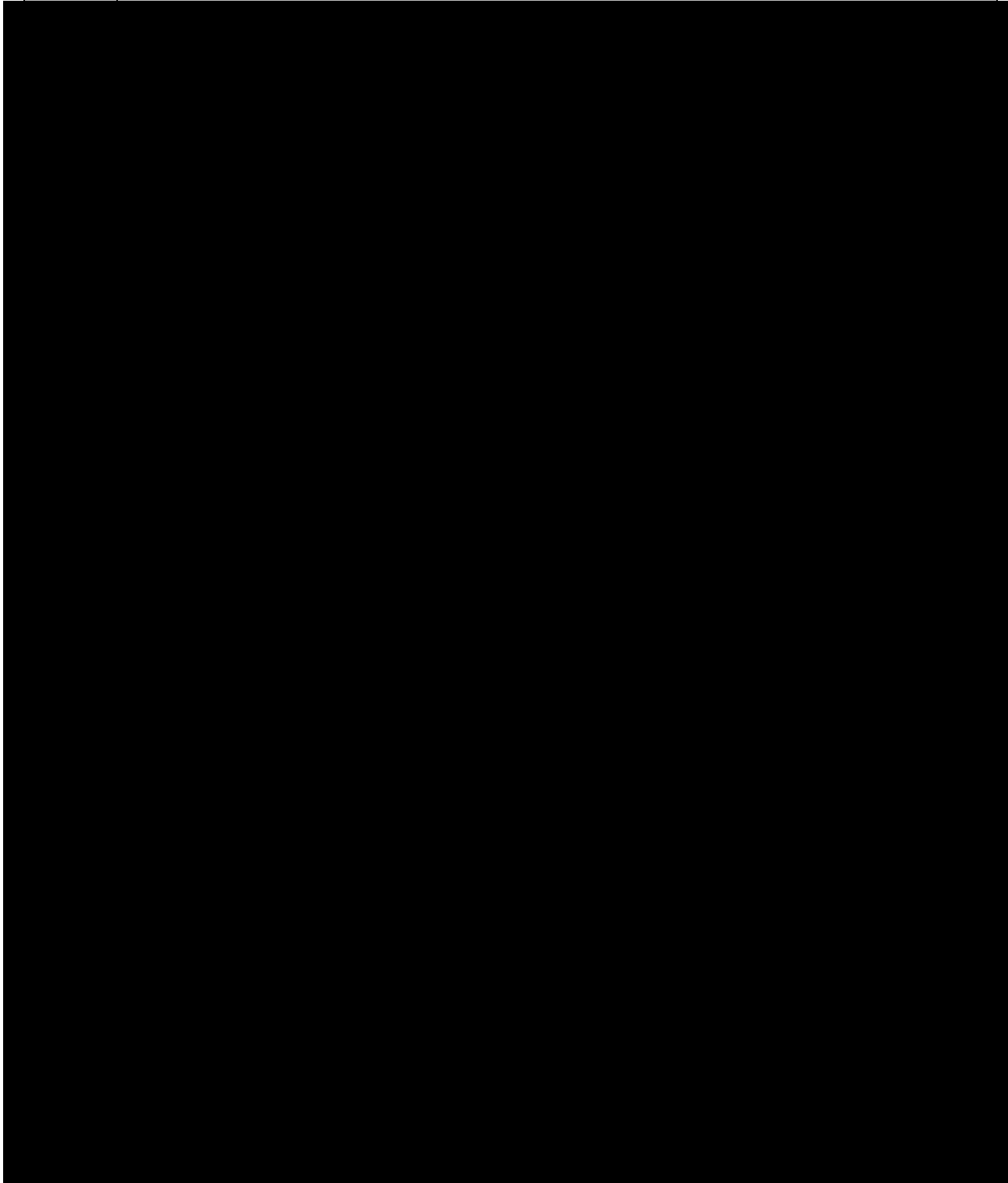
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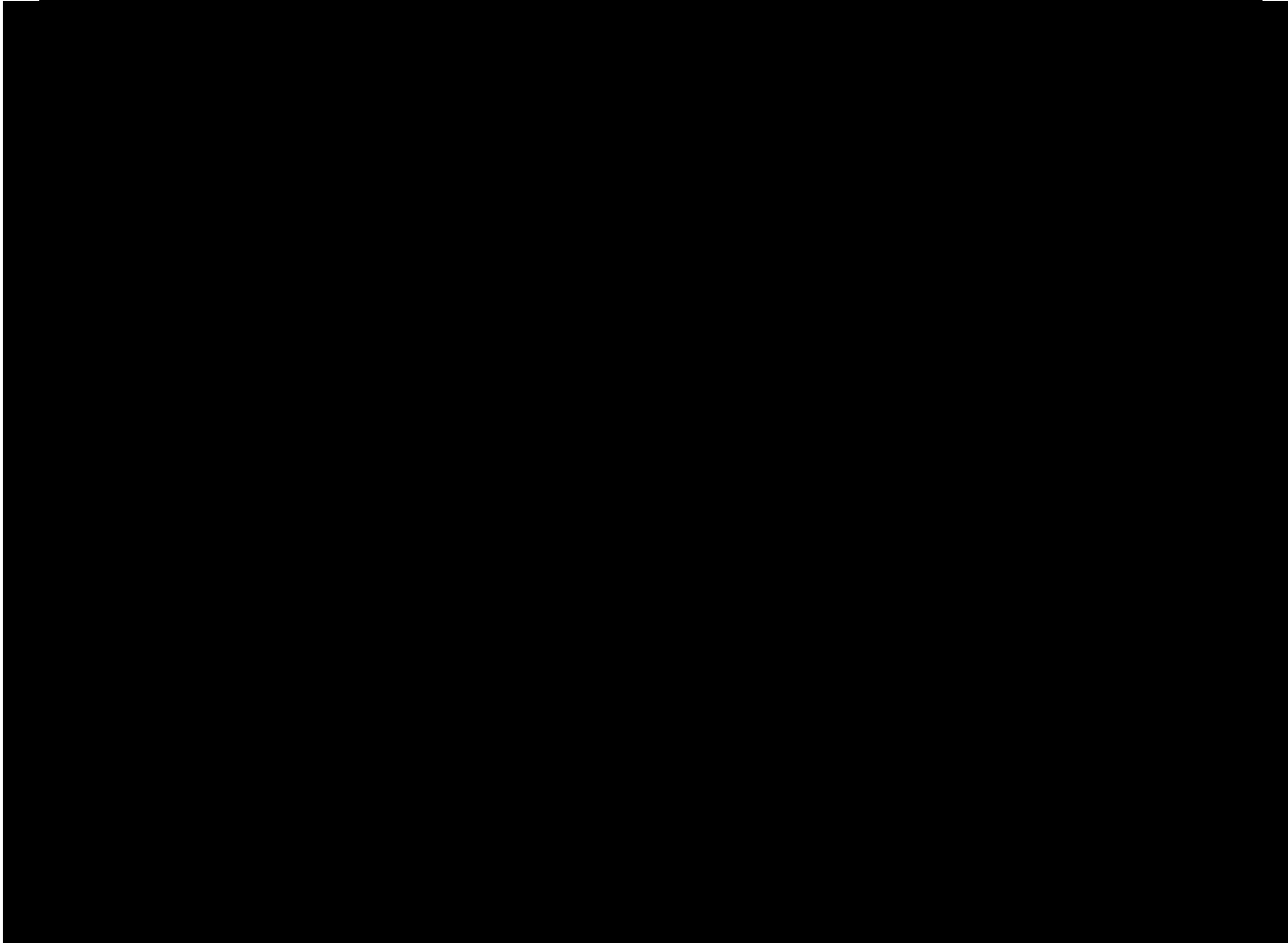
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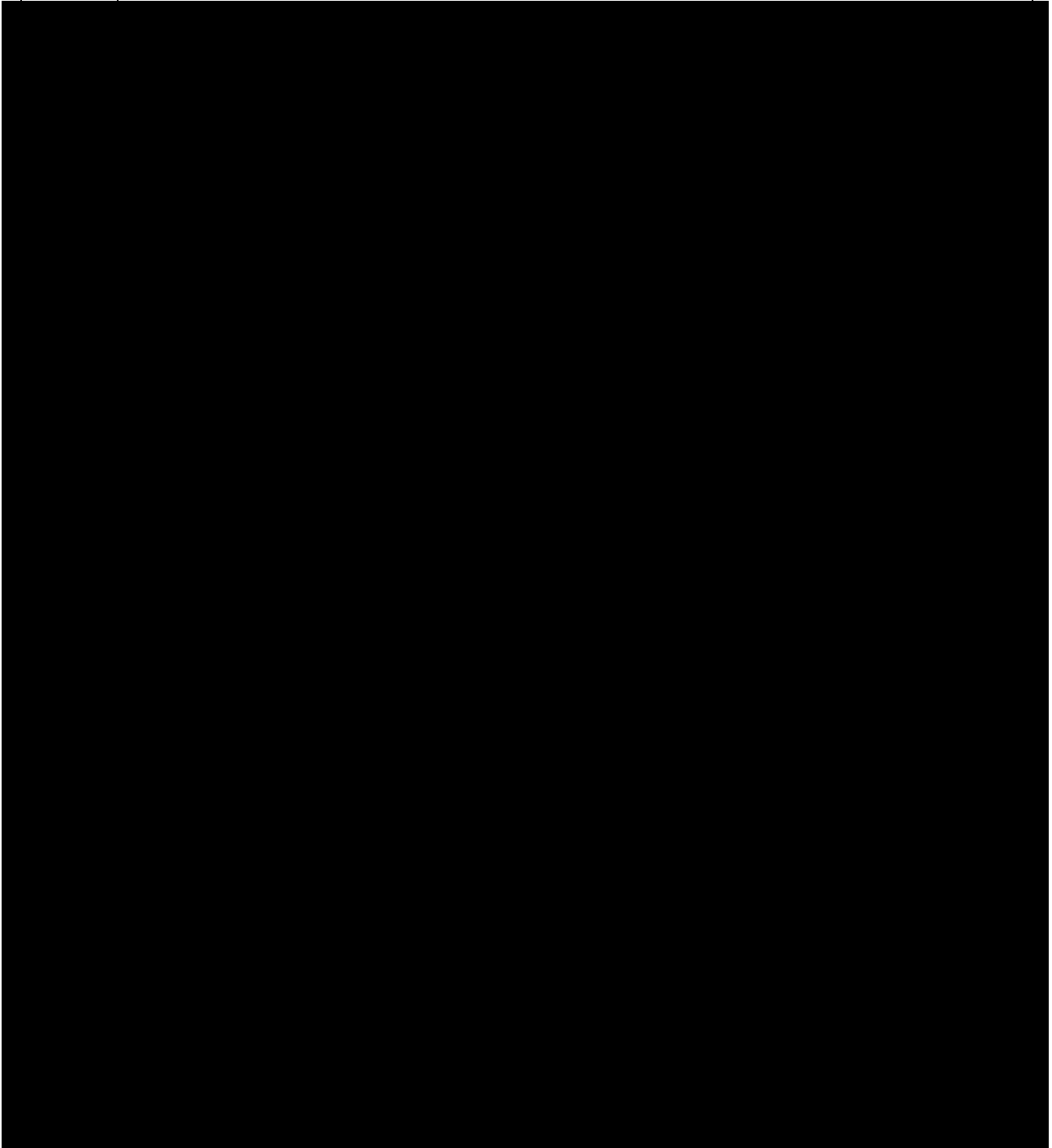
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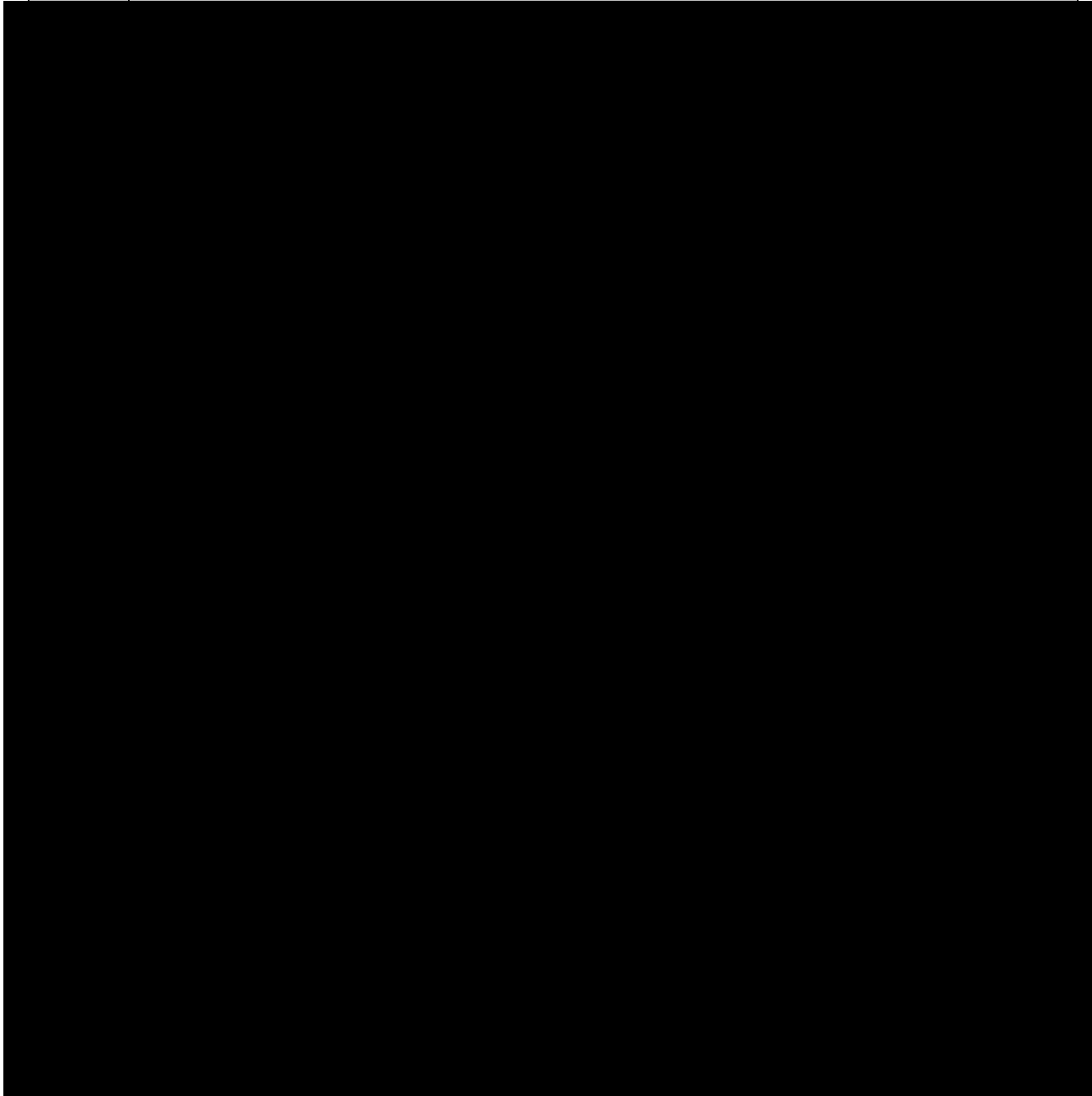
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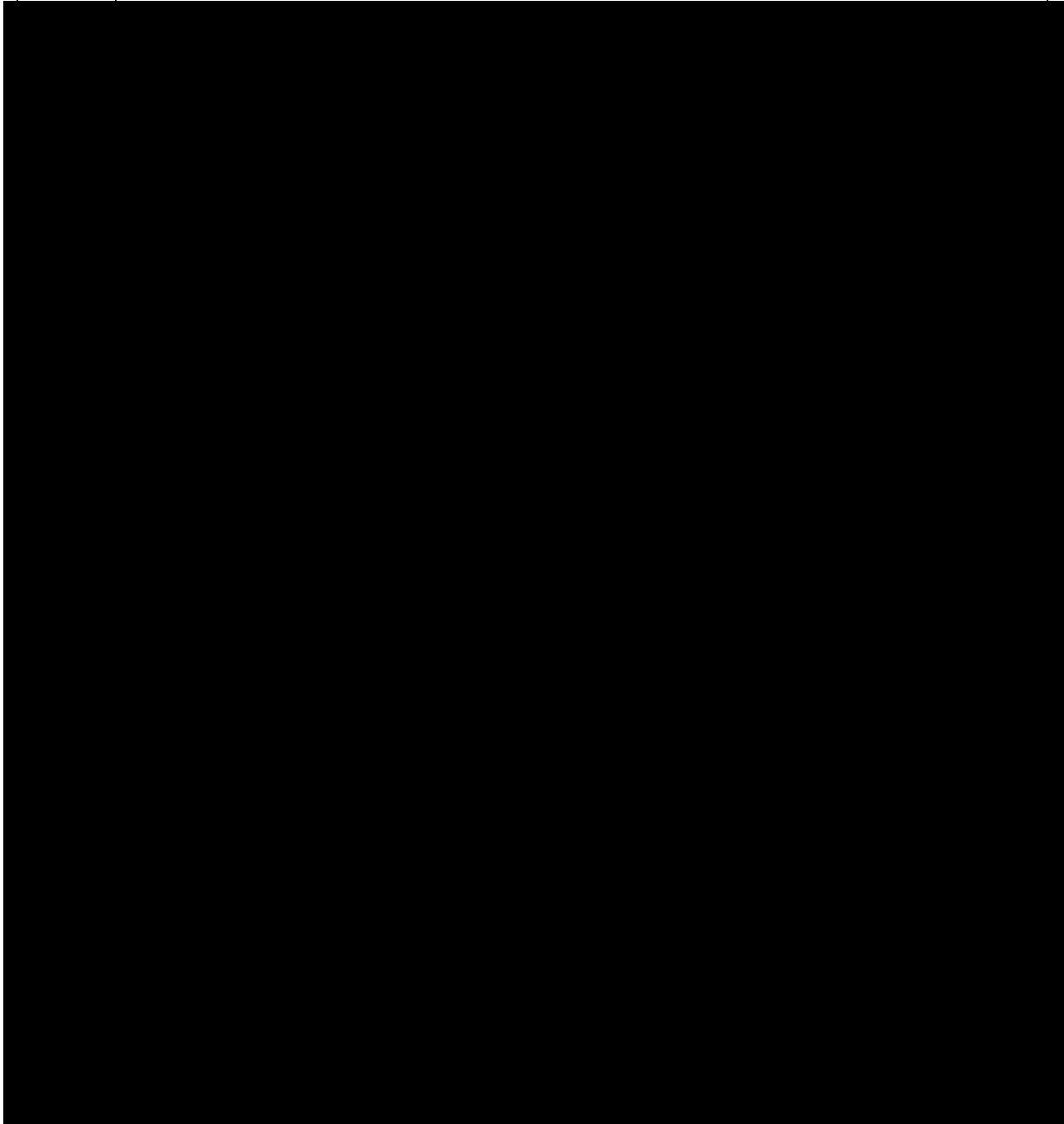


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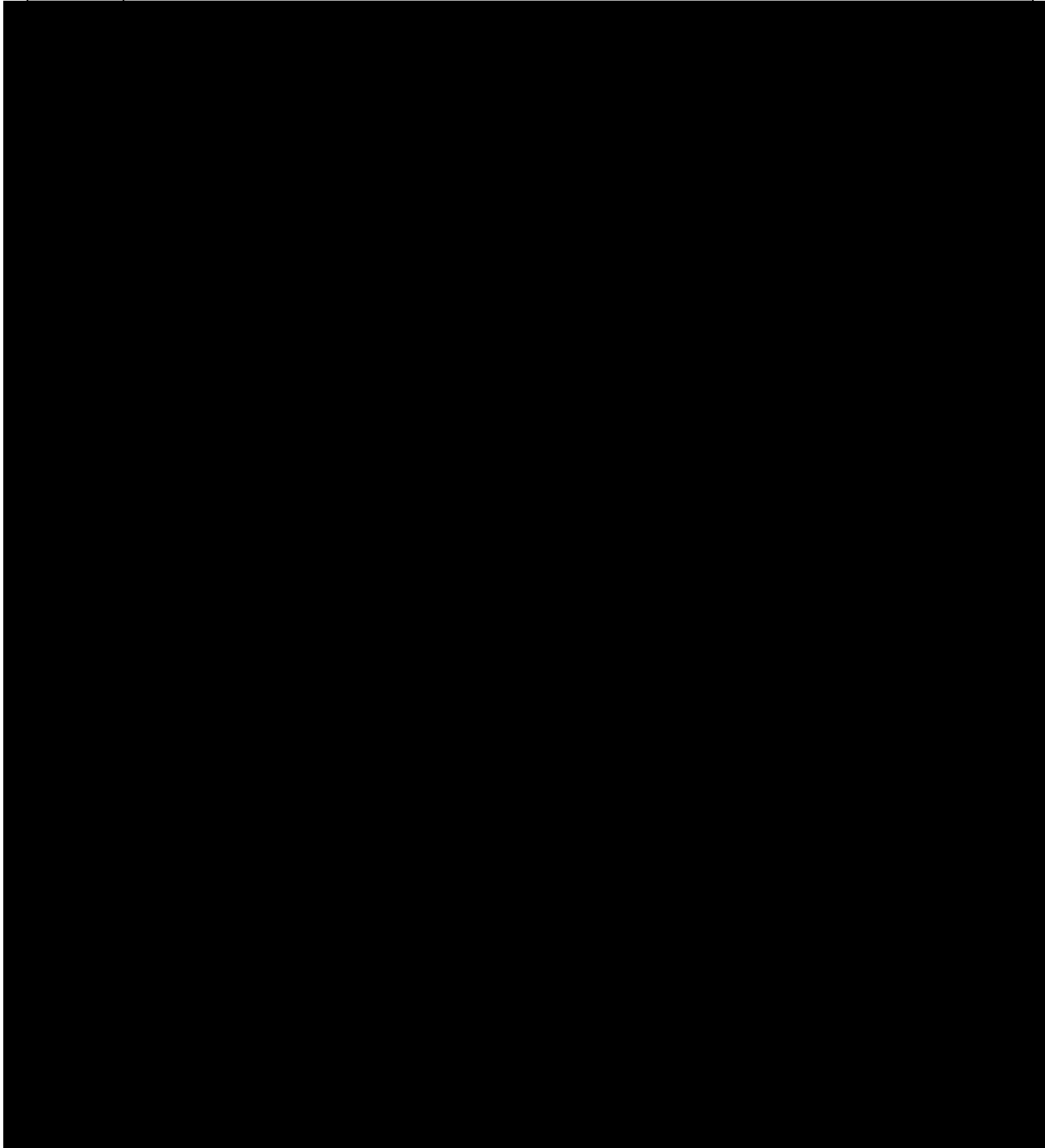


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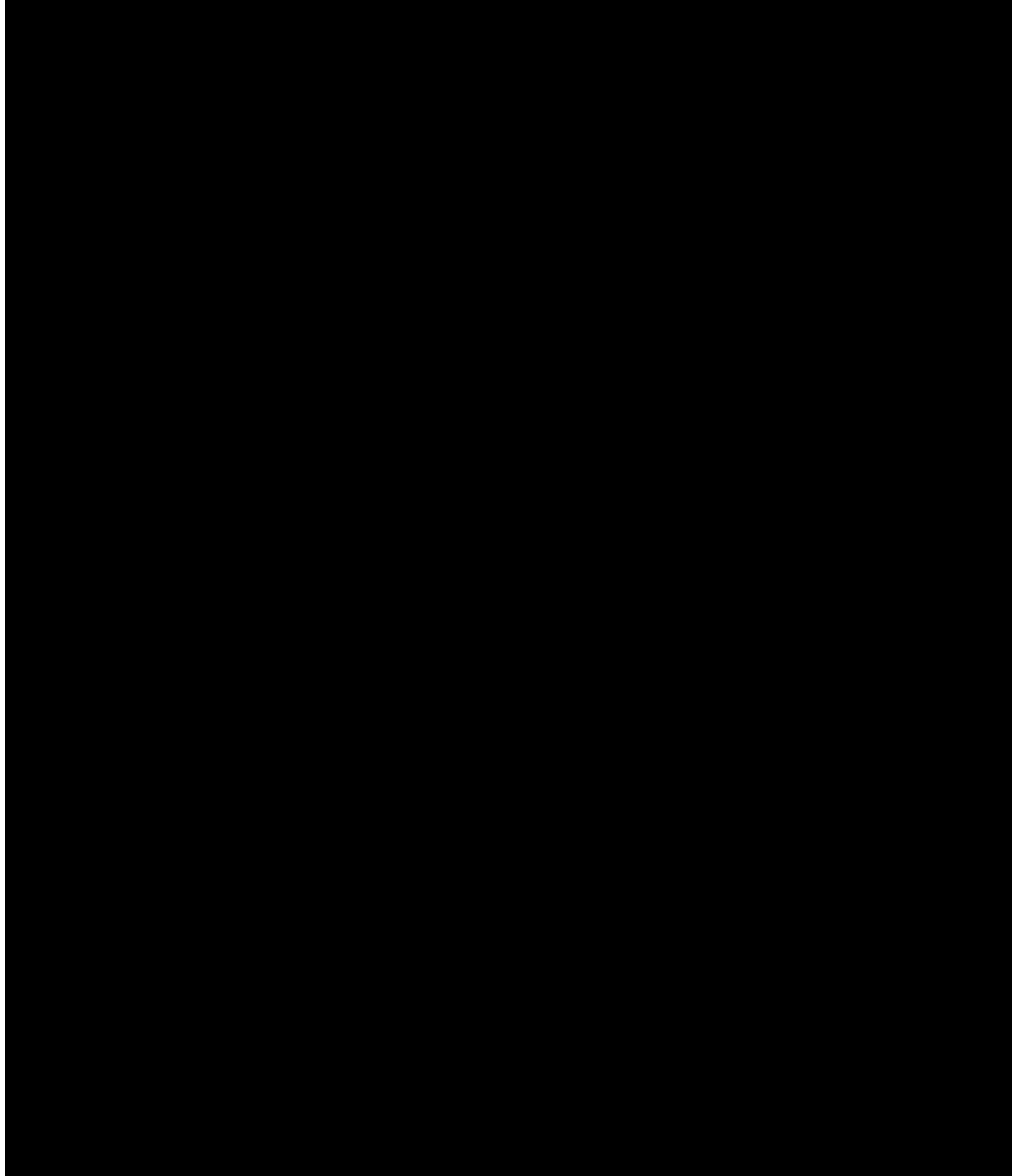


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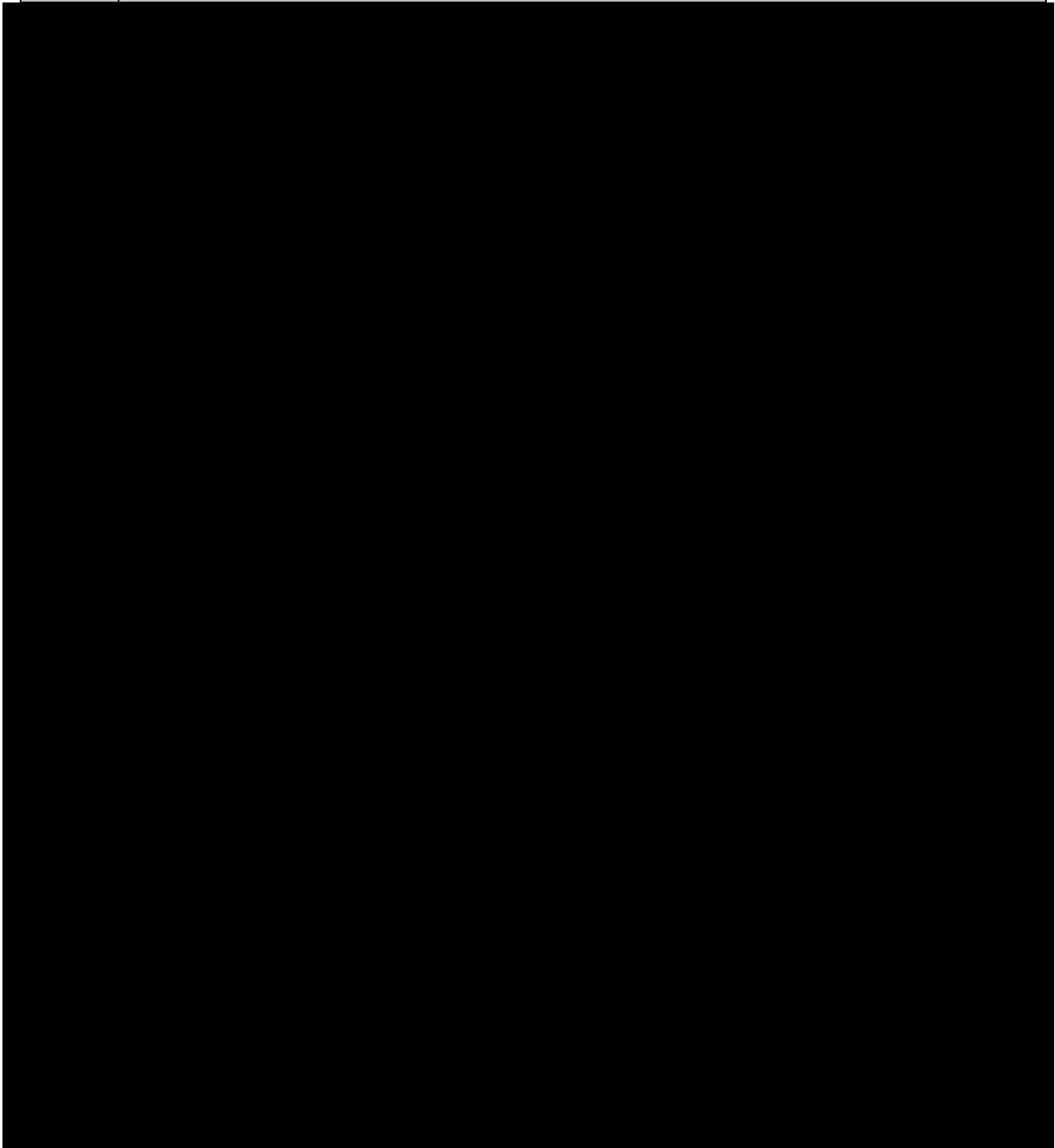


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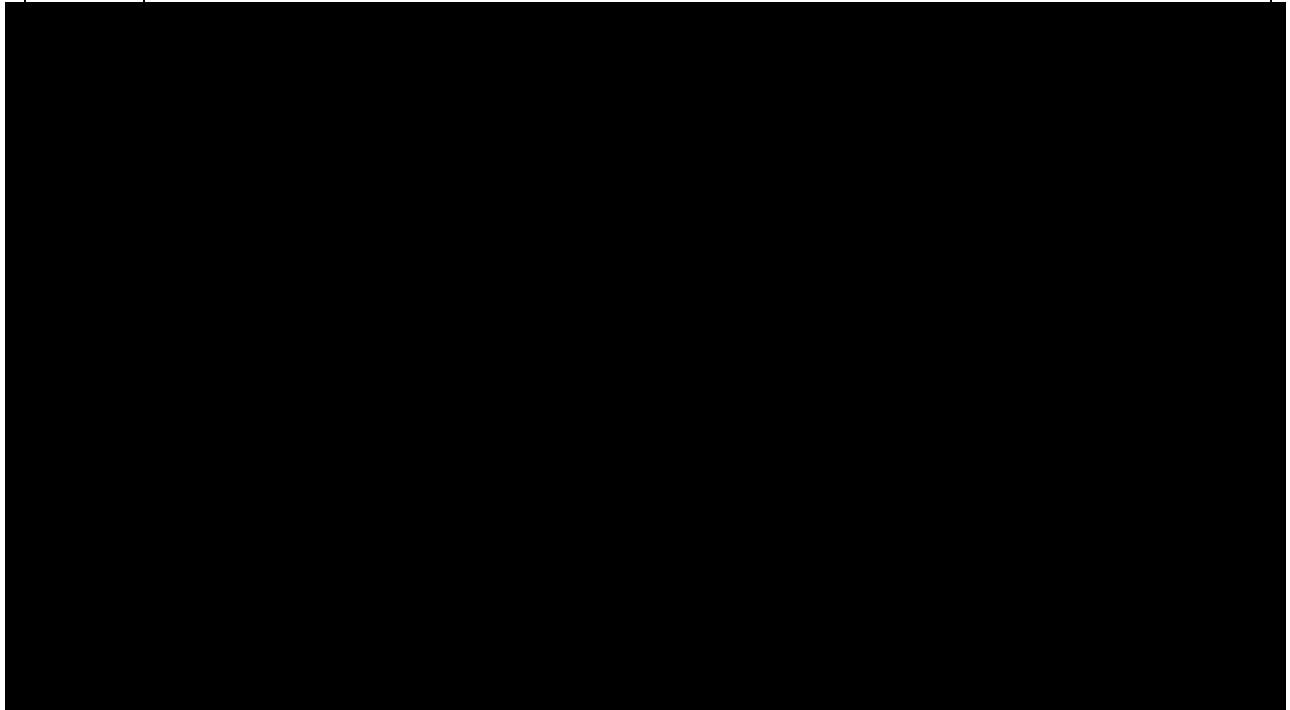


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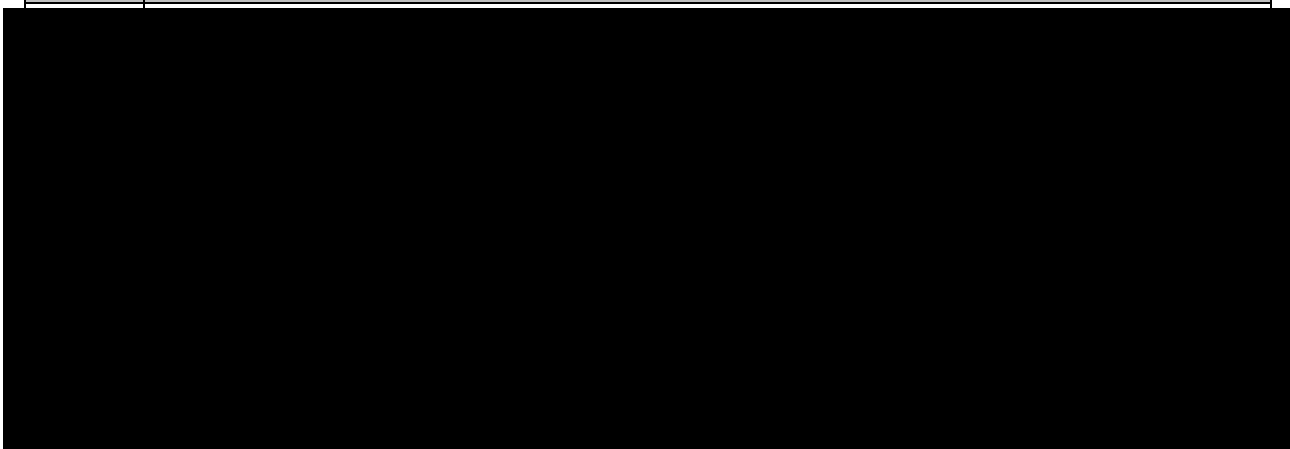


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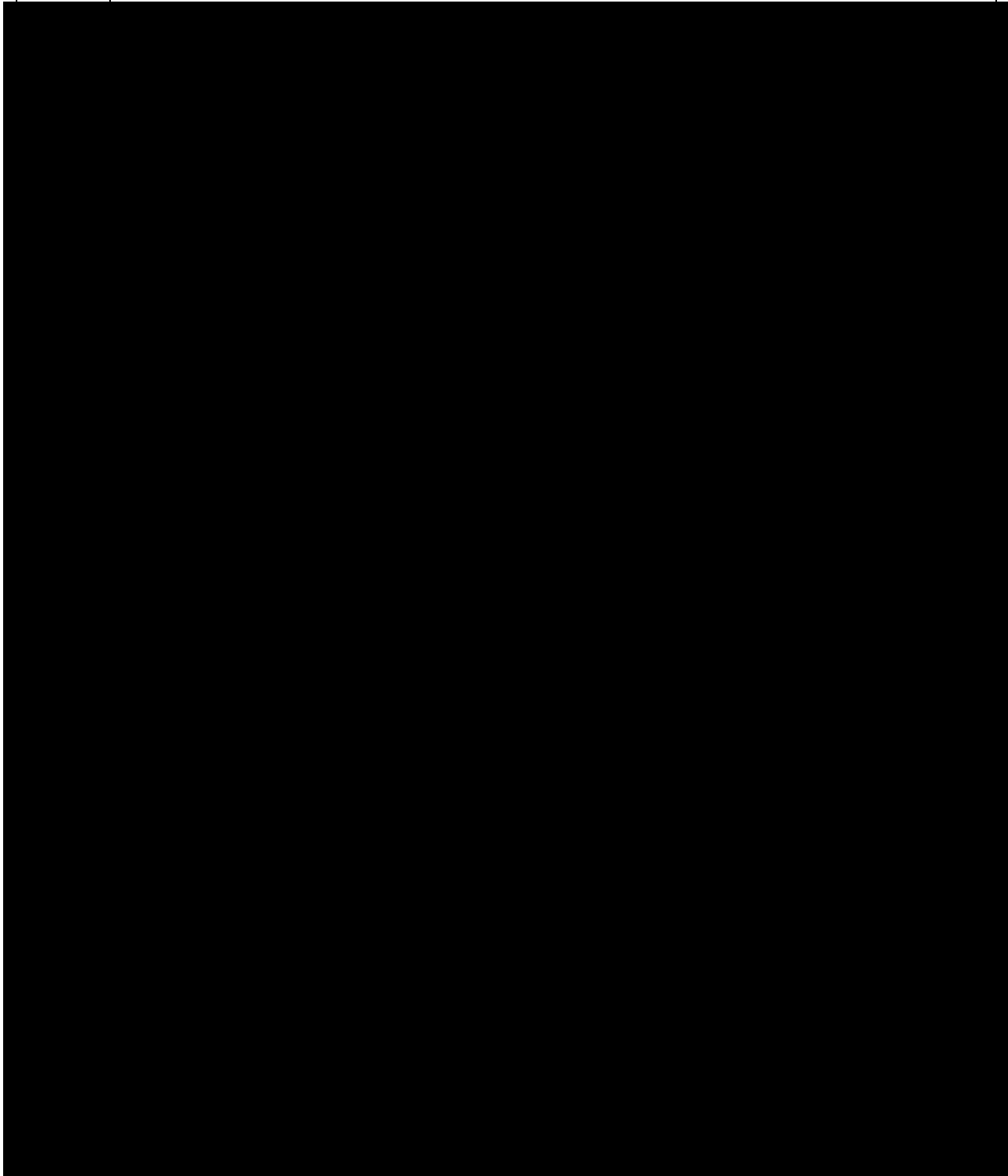


IV. INVESTMENTS IN EQUIPMENT

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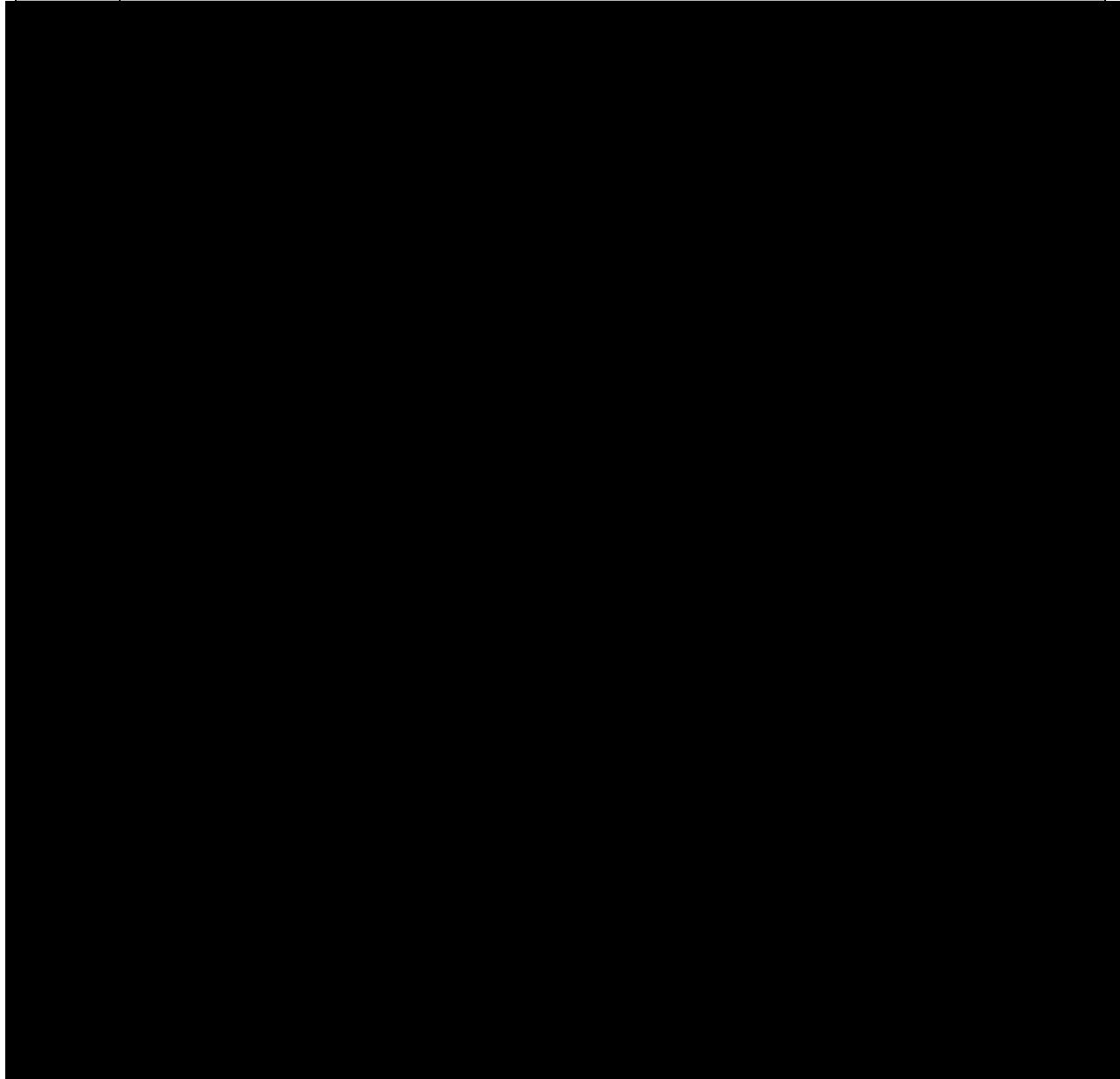


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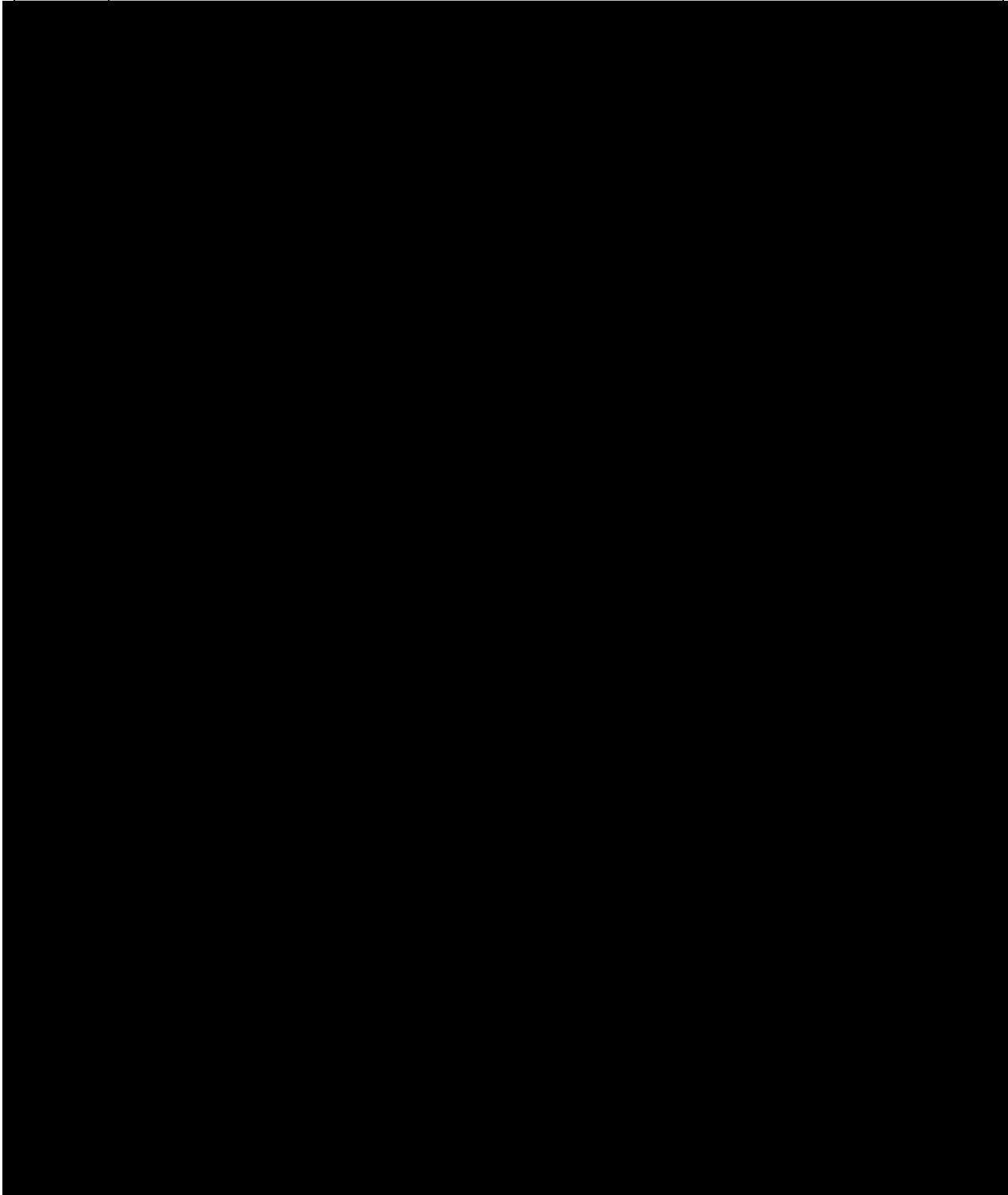


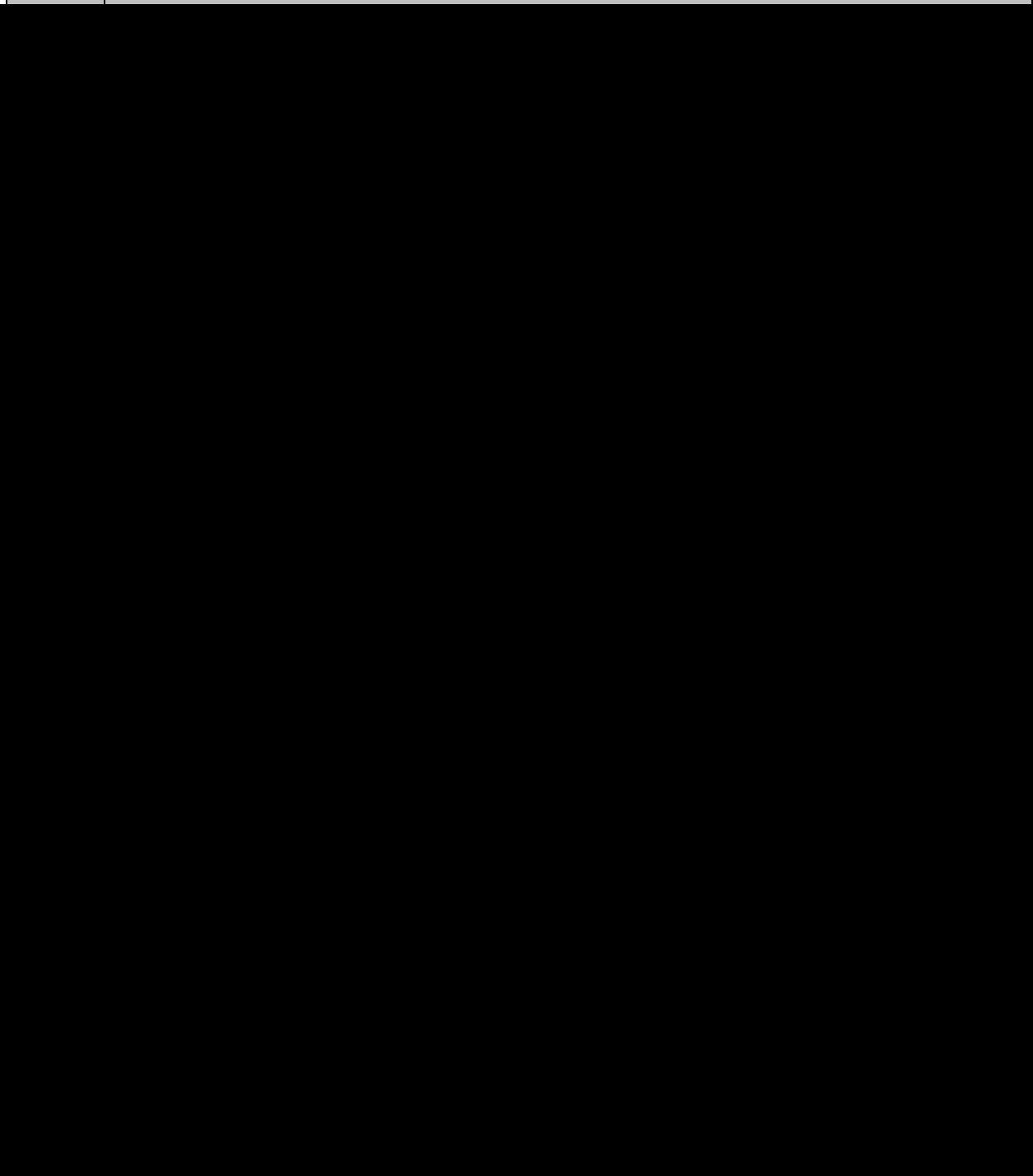
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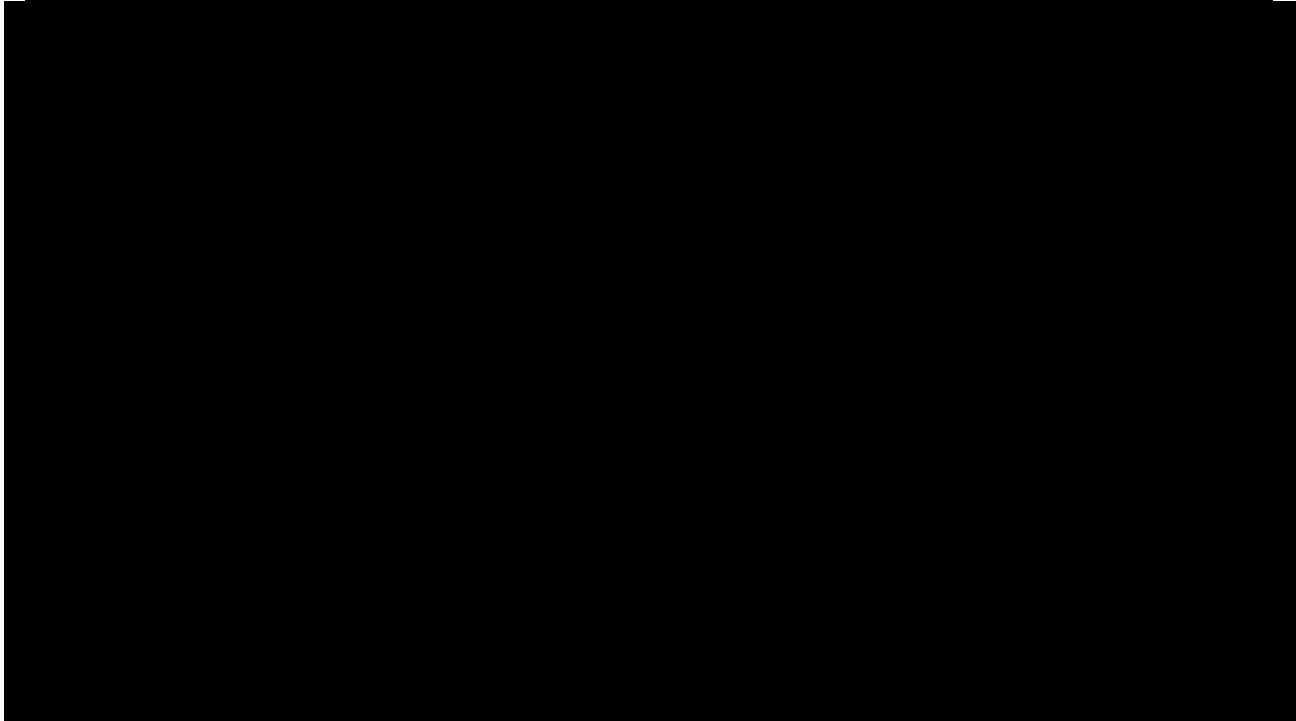


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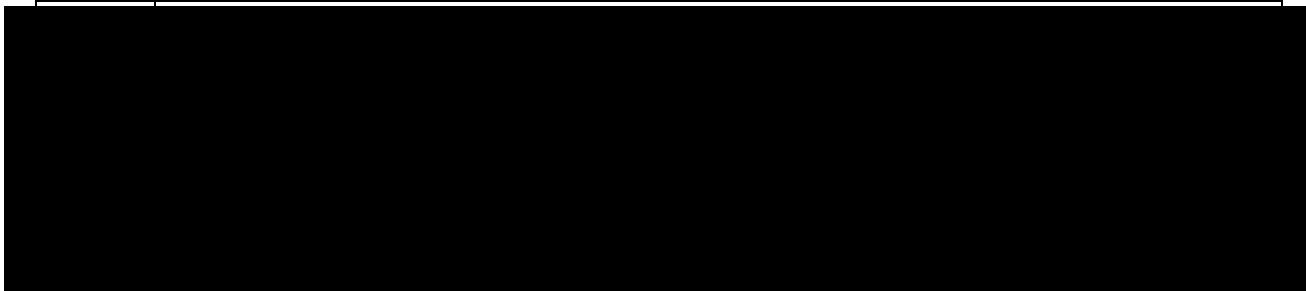
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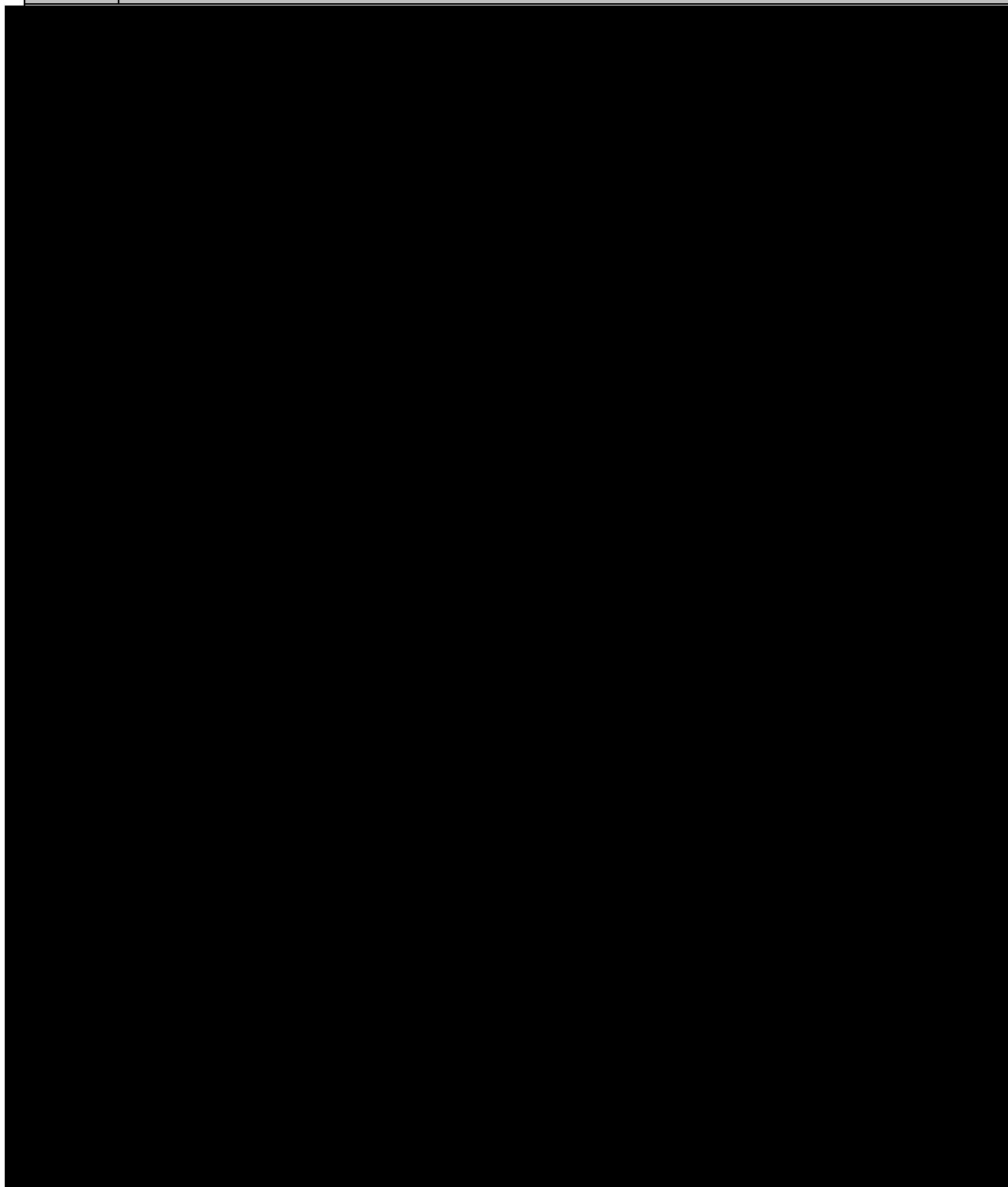
V. SIGNIFICANCE OF SONOS'S DOMESTIC INDUSTRY INVESTMENTS

SUMF No.	Undisputed Material Fact
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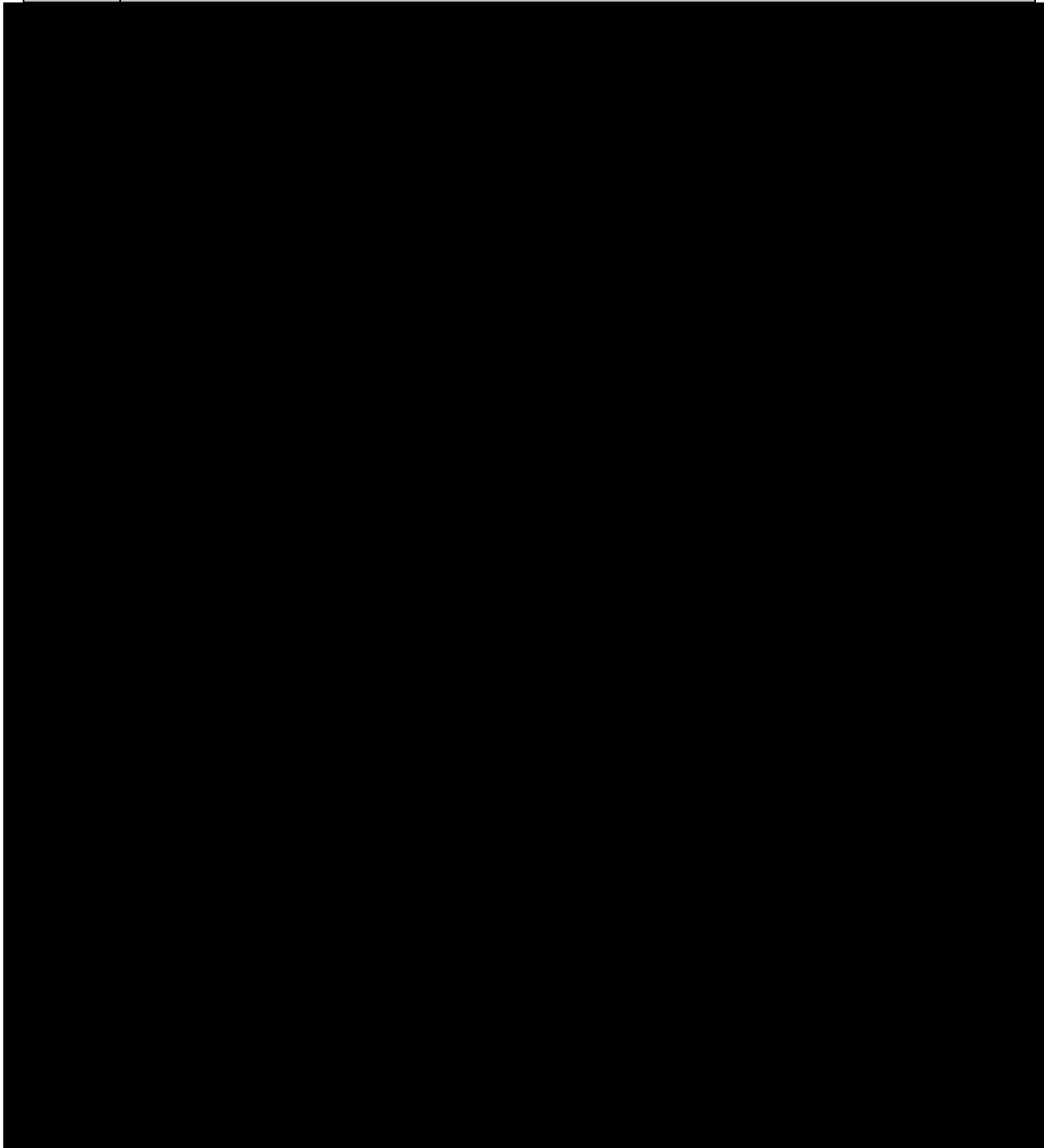
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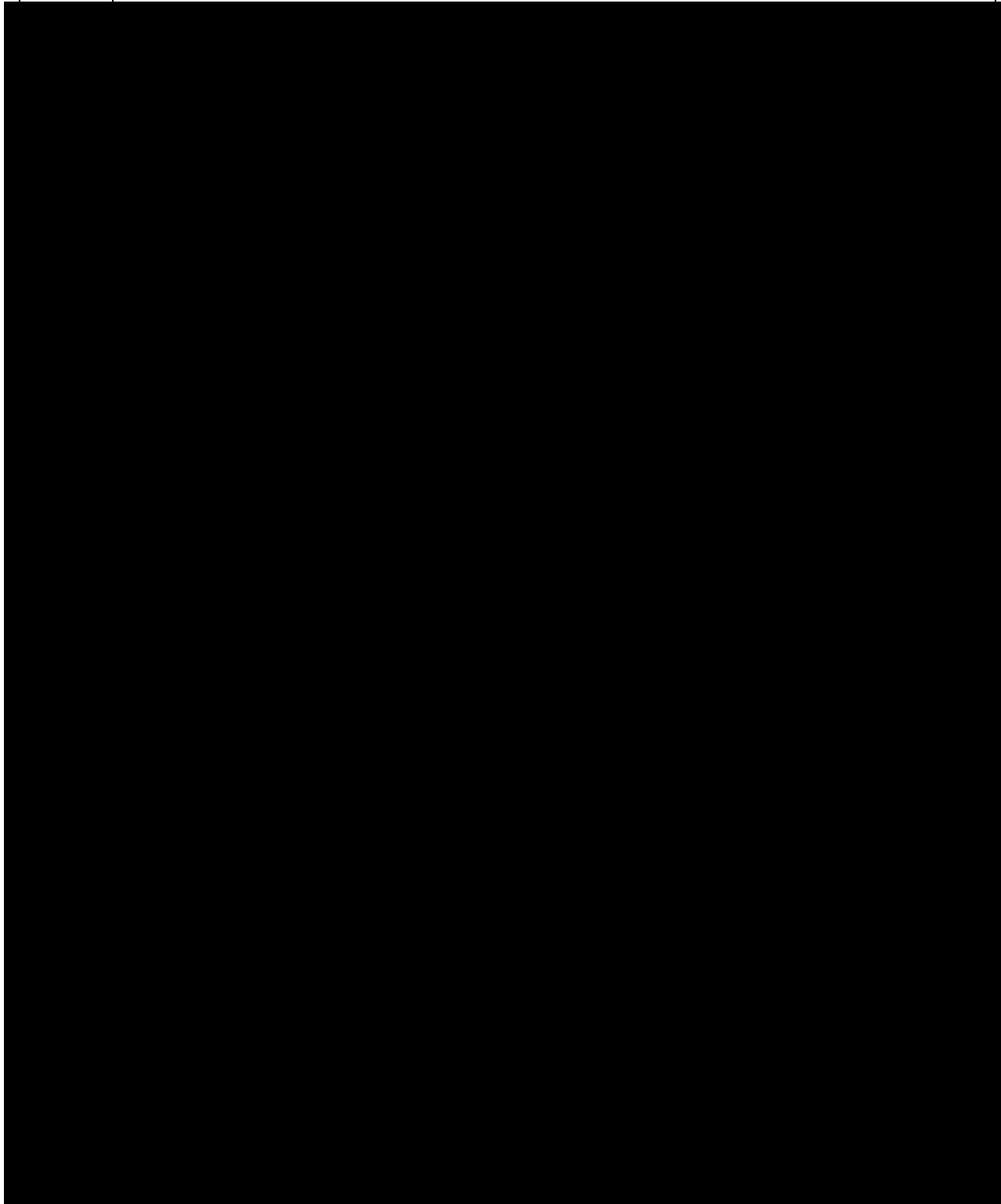


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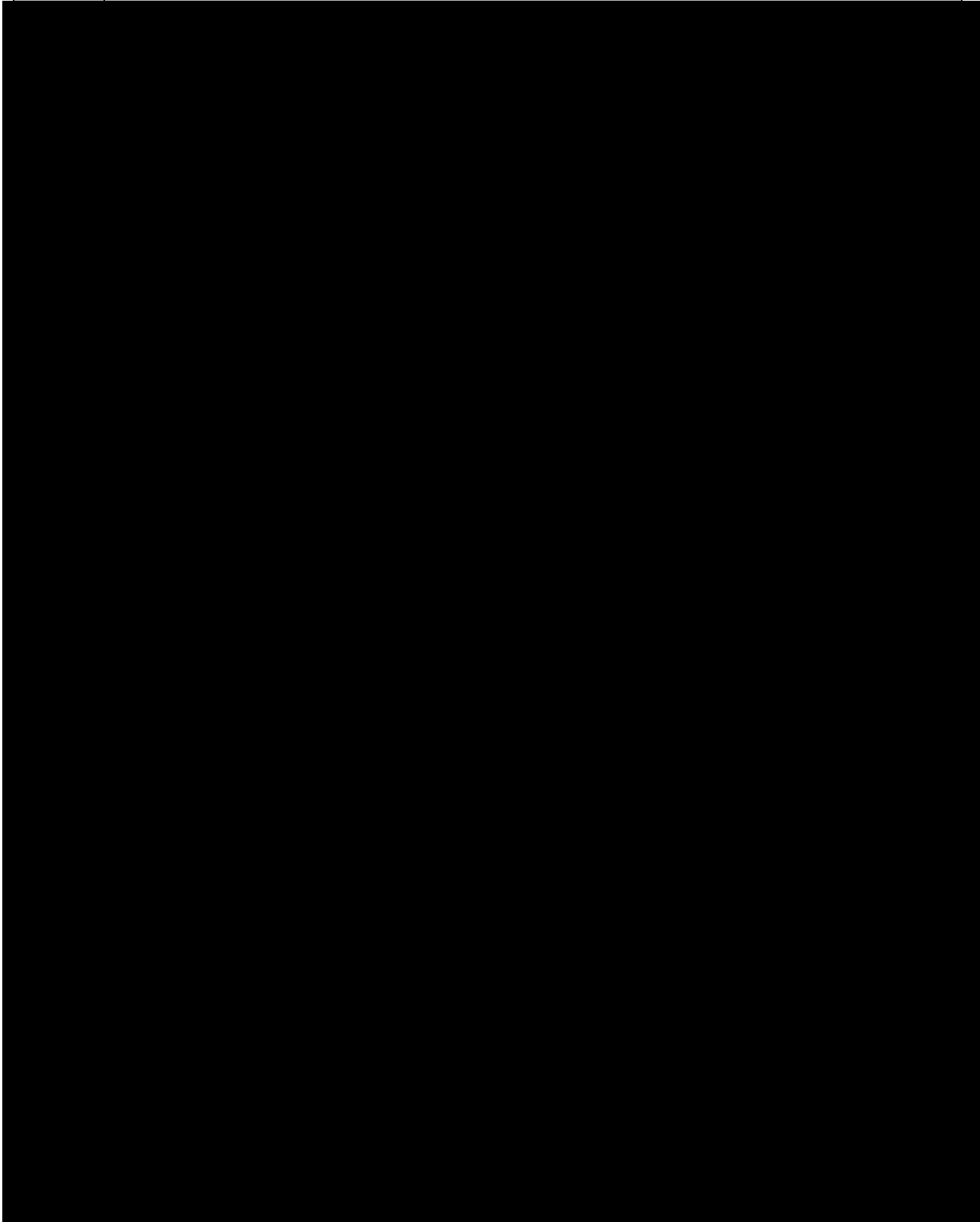
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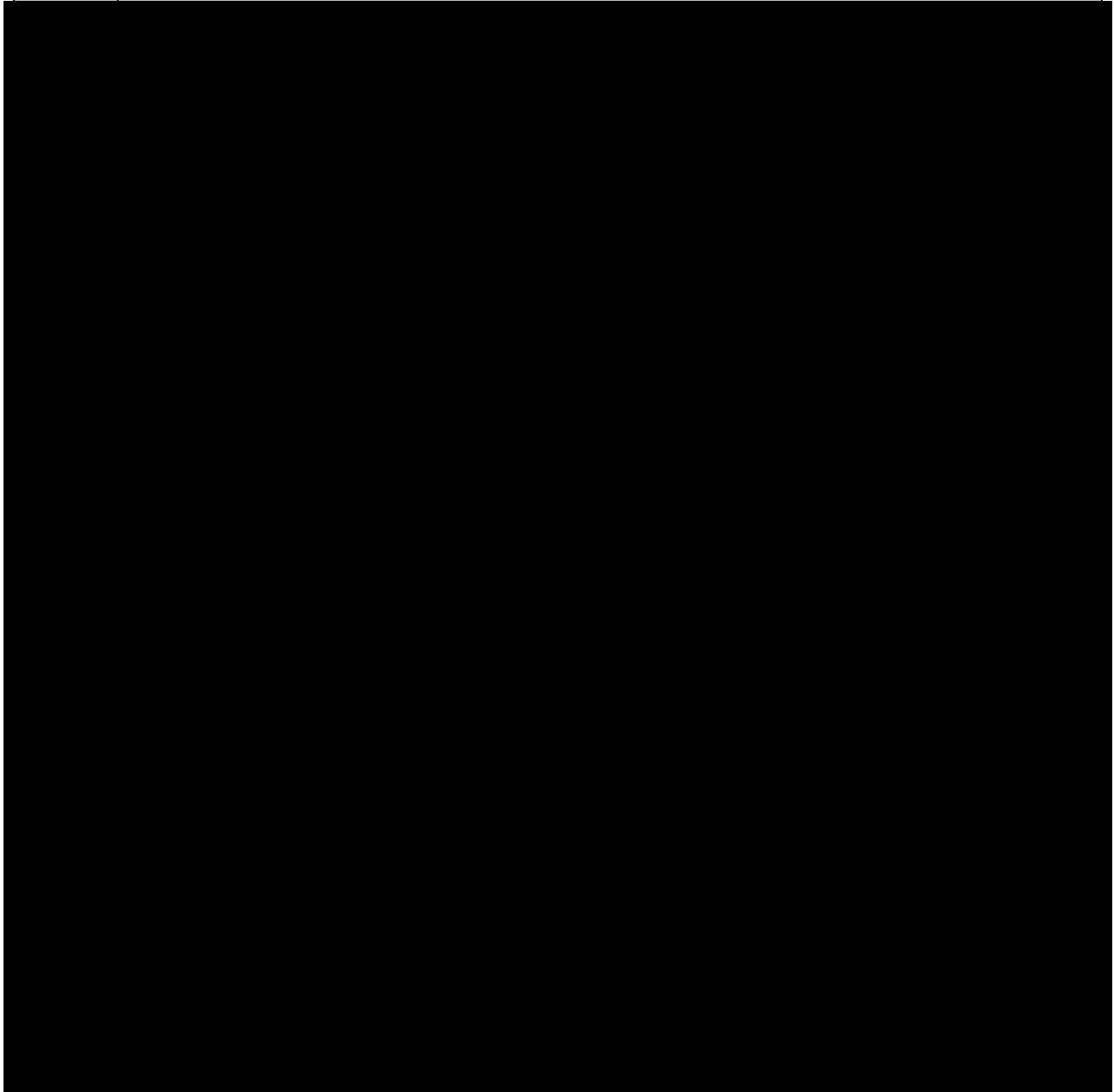
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CERTIFICATE OF SERVICE

I, Karen Johnson, hereby certify that the foregoing was served on December 4, 2020 upon the following parties as indicated:

<p>The Honorable Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E Street, S.W., Room 112 Washington, DC 20436</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Overnight Courier (2 copies) <input type="checkbox"/> Via Hand Delivery (2 copies) <input checked="" type="checkbox"/> Via EDIS Electronic Filing</p>
<p>The Honorable Charles E. Bullock Chief Administrative Law Judge U.S. International Trade Commission 500 E Street S.W., Room 317 Washington, DC 20436 Email: Bullock337@usitc.gov Irina Kushner, Attorney Advisor Email: Irina.Kushner@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>
<p>Cortney Hoecherl, Esq. Office of Unfair Import Investigations U.S. International Trade Commission 500 E Street, S.W., Suite 401 Washington, DC 20436 Email: cortney.hoecherl@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail <input checked="" type="checkbox"/> Via OUII Box site</p>
<p><i>Counsel for Respondents Google LLC</i> S. Alex Lasher, Esq. QUINN EMANUEL URQUHART & SULLIVAN, LLP 1300 I Street, NW, Suite 900 Washington, D.C. 20005 Email: qe-google-sonos-1191@quinnemanuel.com</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>
<p><i>Counsel for Respondent Google LLC</i> Shamita Etienne-Cummings, Esq. WHITE & CASE LLP 701 Thirteenth Street, NW Washington, DC 20005-3807 Email: WCGoogleSonosITC1191@whitecase.com</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>

/s/ Karen Johnson

Karen Johnson

CERTIFICATE OF SERVICE

I, Amy Maruska, hereby certify that the foregoing was served on December 11, 2020 upon the following parties as indicated:

<p>The Honorable Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E Street, S.W., Room 112 Washington, DC 20436</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Overnight Courier (2 copies) <input type="checkbox"/> Via Hand Delivery (2 copies) <input checked="" type="checkbox"/> Via EDIS Electronic Filing</p>
<p>The Honorable Charles E. Bullock Chief Administrative Law Judge U.S. International Trade Commission 500 E Street S.W., Room 317 Washington, DC 20436 Email: Bullock337@usitc.gov</p> <p>Irina Kushner, Attorney Advisor Email: Irina.Kushner@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>
<p>Cortney Hoecherl, Esq. Office of Unfair Import Investigations U.S. International Trade Commission 500 E Street, S.W., Suite 401 Washington, DC 20436 Email: cortney.hoecherl@usitc.gov</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail <input checked="" type="checkbox"/> Via OUII Box site</p>
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<p><i>Counsel for Respondent Google LLC</i> Shamita Etienne-Cummings, Esq. WHITE & CASE LLP 701 Thirteenth Street, NW Washington, DC 20005-3807 Email: WCGoogleSonosITC1191@whitecase.com</p>	<p><input type="checkbox"/> Via First Class Mail <input type="checkbox"/> Via Express Mail <input type="checkbox"/> Via Hand Delivery <input checked="" type="checkbox"/> Via Electronic Mail</p>

/s/ Amy Maruska

Amy Maruska