



Ambient Intelligence Inc.

My idea/startup meets the criteria to enter MN Cup 2026. The idea/startup is based in Minnesota and it earns less than \$1,000,000 in revenue annually.

MN Cup may contact you and ask you to share more information about your business location.

Yes

I have reviewed and agree to abide by the MN Cup Code of Conduct

Not accepted

MN CUP APPLICATION QUESTIONS - REQUIRED

The division you would like to enter:

Please select one of our nine divisions to apply to. More information on each is available at our website - mncup.org in the 'Divisions' page

Impact Ventures

Executive Summary

This is your elevator pitch. Offer a very brief description of your company/ business idea.

Ella AI Nurse Assistant is a contactless monitoring device, engineered for multi-site senior care organizations engineered to address the critical shortage of nurses in the U.S. and abroad. Installed like a smoke detector in each resident room, it tracks movement 24/7 augmenting care teams real-time alerts for falls, sedentary behavior, and abnormal nighttime activity. By requiring no wearables or cameras, Ella AI avoids the low adherence rates, skin integrity issues, battery maintenance burdens, and privacy concerns that limit competing technologies, resulting in improved health and financial outcomes with reduced hospital readmissions and stronger Medicare Star Ratings through proactive, preventive insights.

OPPORTUNITY

Describe your product or service and value proposition.

What problem are you solving? What is your solution? What makes your product innovative and unique? Who is your target market, and how large is the addressable market? Note: Impact Ventures - be sure to emphasize the impact of your idea and how you will measure it.

Senior care organizations face an escalating crisis driven by America's 65+ population exceeding 61 million and a severe nurse shortage. The Health Resources and Services Administration projects over 260,000 registered nurse positions unfilled by 2026, while the global shortage stands at 5.8 million nurses according to the World Health Organization. Falls occur at a rate of one in four seniors annually, driving millions of emergency visits and preventable hospitalizations. Traditional solutions fail at scale: wearables show poor adherence (often below 70% due to skin irritation, battery charging, and nurse burden), pendants are rejected due to stigma and fear of losing independence, and cameras raise privacy concerns in private spaces. Ella AI Nurse Assistant is a patent-pending, completely passive AI monitoring system purpose-built to solve this challenge. Installed discreetly like a smoke detector in each resident room, the device gathers over one million movement data points daily without wearables or changes in routines. This dataset powers instant alerts and enterprise-wide analytics from a single dashboard. Our beachhead market is Memory Care, where dementia residents face the highest fall risk and staffing strain. Nearly 7 million Americans aged 65+ live with Alzheimer's or other dementias, and the U.S. Memory Care market is valued at \$6 billion, projected to reach \$8.6 billion by 2030 (Grand View Research). Ella AI solves this at enterprise scale. It instantly detects falls, prolonged inactivity, sleep disruptions, and health trends, delivering real-time alerts to nursing teams and centralized longitudinal insights for smarter staffing and care decisions. One platform manages thousands of residents across locations with zero added complexity. What makes Ella AI uniquely innovative is its patent-pending device engineered for the aging population, generating the

precise behavioral data our proprietary AI needs — with no wearables, no cameras, and no compliance required. Deployment is as simple as plugging in a smoke detector, and the cloud system scales effortlessly nationwide. Hardware costs from our Mankato partner, El Microcircuits, remain under \$200 per unit. Our target market starts with Memory Care and expands across assisted living (1.2 million licensed beds), in-home care, skilled nursing, and hospice. Ella AI operates in the remote patient monitoring market (MarketsandMarkets: \$29.13 billion by 2030) and aging-in-place technology sector (AARP: \$120 billion by 2030). Our serviceable addressable market targets multi-site operators managing over 1.2 million residents nationwide — infinitely scalable with virtually no added infrastructure cost per new location. Measuring Impact through Medicare Star Ratings Ella AI creates measurable societal impact by extending independent living, reducing caregiver burnout (enabling one nurse to safely monitor far more residents), and lowering healthcare costs amid the global nurse shortage. By reducing falls with major injury — a key quality measure in CMS’s 5-Star Rating System — Ella AI directly improves facilities’ Quality Measures domain scores and supports performance improvement plans (PIPs) for those facing Immediate Jeopardy (IJ) citations. We will measure success through enterprise pilots demonstrating at least a 30% reduction in fall-related hospitalizations, increased days of independent living, and improved staff retention and wellness scores.

PLAN

Explain your business model including: team, operations, sales, and marketing plans.

What activities will you perform and who are your partners/vendors? How will you make money (sources of revenue, unit economics for profit margins, etc.)? How will you reach your customers (channels) and create awareness of your product? What resources (capital and other) will be required? Include a list of key team members/advisors.

Ella AI Nurse Assistant employs a SaaS-powered, zero-upfront subscription leasing model designed for senior care organizations managing multiple geographic locations. Revenue is driven entirely by predictable recurring monthly fees under five-year agreements, delivering strong margins and enterprise-grade cash flow. Revenue Streams and Unit Economics Organizations pay \$99 per month per resident (covering up to three devices per room) with a mandatory five-year agreement. Hardware costs are fully financed through non-dilutive equipment leasing, so Ella AI carries no capital expense on its balance sheet. The core offering is delivered as SaaS with high-margin recurring revenue. Software and AI margins exceed 85%. At scale, annual recurring revenue per resident exceeds \$1,188 with 60%+ gross margins. Lifetime value per resident surpasses \$7,000. We also offer volume-based enterprise contracts and will pursue reimbursement through RPM CPT codes, including 99454, 99453, and 99457/99458 for the second generation of the product. Operations and Partners/Vendors Core activities include continuous training of our proprietary behavioral AI models, HIPAA-compliant cloud infrastructure, over-the-air device updates, 24/7 monitoring support, and leasing program administration. Manufacturing is outsourced to contract electronics partners and secure hosting runs on AWS. Clinical validation and initial pilots are conducted with Minnesota-based senior care networks and hospitals. Equipment leasing is provided by Camber Road Partners using their flexible non-dilutive “you spec it, we buy it, you lease it” model. Our regulatory strategy begins with general wellness features for rapid market entry. As features are clinically validated, we will progress to FDA Class I devices and eventually Class II with 510(k) clearance for predictive capabilities. New validated features will be deployed automatically via over-the-air updates. Sales, Marketing Plans, and Customer Reach Sales and marketing focus on B2B relationships with multi-site assisted living operators, home care agencies, and health systems. We will leverage our established organic network of over 50 administrators, physicians, and directors of nursing in the Twin Cities metro area, representing facilities serving more than 3,000 residents and an immediate addressable annual recurring revenue opportunity exceeding \$3.5 million, plus major 2026–2027 pilot opportunities within the M Health Fairview system. Expansion follows a clear geographic roadmap: North Country and Southern Minnesota in 2028, broader Midwest in 2029, and national reach by 2030. The zero-upfront \$99/month model is positioned as risk-free, plug-and-play peace of mind that scales effortlessly. Resources Required We will require \$500,000–\$2M in seed capital (starting at \$500k and expandable depending on National Institutes of Health grant reauthorization) primarily for AI refinement, initial leasing reserves, enterprise pilots, regulatory progression, and targeted B2B marketing. This capital will directly support key milestones to reach commercial product readiness, with flexibility to bridge any gaps from NIH or other non-dilutive grants. Key Team Members/Advisors Brian Johnson, Founder & CEO, MS in Medical Device Innovation from UMN Dr. Simon Mittal MD, Chief Medical Officer Greg Shultz, Chief Marketing Officer Dr. Randall Ross, PhD, Chief of Staff Kyle Roling, MBA, Healthcare Advisor Tim Hokanson, MBA, Healthcare Advisor, Administrator at Mount Olivet Home Dr. Britni Bolstad, DNP, Nursing Innovation Advisor

PROGRESS

What progress have you made ?

Do you have a prototype, customers, strategic partners or revenue? Tell us what milestones you've achieved to validate the opportunity and bring your product/service to market. How can you demonstrate that customers truly want your product/ service, and are willing to pay for it?

Ella AI Nurse Assistant has achieved substantial technical, commercial, and funding progress, advancing from concept to a fully functional, enterprise-ready system with strong validation from multi-location senior care organizations. We have developed and extensively tested a working prototype of our patent-pending wall-mounted device. The functional prototype has already collected preliminary real-world behavioral data to support NIH Phase 1 applications. Our proprietary AI models, trained on this dataset, deliver greater than 95% accuracy in detecting falls, sedentary behavior, nocturnal activity, and emerging health trends with minimal false positives. Amazon has funded our cloud engineering efforts to optimize performance and cost efficiency. We recently secured a \$248,000 grant through the Minnesota Partnership for Biotechnology and Medical Genomics — a collaborative initiative between the University of Minnesota, Mayo Clinic, and the State of Minnesota. We have filed a PCT patent application with University of Minnesota Technology Commercialization. In addition, we closed a \$100,000 investment from gener8tor’s MSP Equity Accelerator in partnership with Allianz. The startup is currently participating in the ENDURE accelerator at the Earl E. Bakken Medical Devices Center, focused on increasing federal funding and advancing translation efforts. On the market side, we have built a robust organic network of over 50 administrators, physicians, and directors of nursing in the Twin Cities metro area. This network represents facilities

serving more than 3,000 residents and creates an immediate recurring revenue opportunity exceeding \$3.5 million annually. Our pilot site and research partner is Mount Olivet Careview Home, ranked #1 in Minnesota by Newsweek's America's Best Nursing Homes 2025 (150+ bed category). We have also initiated strong discussions and secured pilot commitments with the M Health Fairview system and other Minnesota operators. Customer validation has been particularly strong. Through targeted interviews with facility operators and families, 100% expressed interest in piloting Ella AI, and most confirmed they would commit to our zero-upfront \$99 per month per resident, five-year subscription model. This demand has already translated into Letters of Intent from assisted living organizations for paid pilots covering approximately 150 resident rooms across multiple locations. Although we remain pre-revenue as we finalize pilot preparations, these milestones — proven technology, trained AI, intellectual property protection, non-dilutive and equity funding, accelerator support, committed enterprise partners, and signed letters of intent — clearly demonstrate that senior care organizations managing populations across geographies both want and are willing to pay for Ella's infinitely scalable solution. We are on track to launch our first revenue-generating enterprise pilots in late 2026, followed by rapid multi-location expansion.

SUPPLEMENTAL INFORMATION

Startup Website

Not required

<https://ambienthealthgroup.com>

Startup Instagram Handle

Not required

N/A

Startup Twitter Handle

Not required

N/A

Startup Logo

Not required - High resolution files preferred in .jpg or .png formats

<https://platform.younoodle.com/api/entries/4f38505568417676493033484e683338/entry-fields/1790691/files/720515>

Summary Financial Projections

Attach a simple spreadsheet with 3-5 year projected income statement and funding requirements. Include assumptions for projected unit volume, unit economics, major expense categories and capital investments. This attachment is not required, but highly encouraged.

<https://platform.younoodle.com/api/entries/4f38505568417676493033484e683338/entry-fields/1790688/files/722360>

MVP, Product Photo, Diagram or other visual

For your use if you'd like to include a Minimum Viable Product, Prototype, Sketches, Product photo or Screen shot of your website or app

<https://platform.younoodle.com/api/entries/4f38505568417676493033484e683338/entry-fields/1790692/files/722988>

Video Link for Demo/MVP

N/A

COMPANY DATA - REQUIRED, WILL NOT AFFECT YOUR SCORE

How would you describe the stage of your venture?

Operating Company - Registered Entity

How many employees does your company have?

Total number of people who work at the company

4

How much money has your company raised?

If you have not raised money, enter 0

\$150000

What stage of fundraising?

Grants

How much revenue does your company generate annually?

Pre-revenue

What city is your company headquartered in?

Minneapolis

What is the zip code of your headquarters?

55414

RESOURCES & INFORMATION SHARING

Curious to see a completed and successful application? Check out Momease Solution's application from 2024. They were our Grand Prize Winner as well!

Not accepted

MN Cup strives to make referrals of MN Cup participants to other relevant programs and opportunities, which could involve sharing your email address. We do this with the goal of making strong recommendations in the best interest of our competitors. We never sell or share contact information with organizations that are not directly supporting entrepreneurs.

opt in to referral to other programs or resources

Thank you for completing your application, if you have any issues submitting your application please contact support at support@younoodle.com.

N/A

Personal information

TEAM LEAD: BRIAN JOHNSON (JOHN3913@UMN.EDU)

First Name

Brian

Last Name

Johnson

Preferred Pronouns

Please let us know how you'd prefer to be addressed.

He/Him

Email Address (username)

john3913@umn.edu

Primary Phone Number Region

US/Canada

Primary Phone Number

6127497851

Age

44

Gender

Male

Ethnicity

East Asian or Asian American

Please select any of the following identifiers that apply to you

Specific resources and cash prizes may apply to you or your company based on your response to this question.

None apply

Are you a current student or Alumni of the University of Minnesota?

Yes from another College within the University

What percent of the company do you own?

If you do not have a formal entity structure in place, or have not discussed equity ownership with your cofounders, please estimate

80

County

County where you live

Hennepin

City

City where you live

Minneapolis

LinkedIn

<https://www.linkedin.com/in/brianbradleyjohnson>

MEMBER: GREGOR SHULTZ (GREG@GASKET.TV)

First Name

Greg

Last Name

Shultz

Preferred Pronouns

Please let us know how you'd prefer to be addressed.

He/Him

Email Address (username)

greg@gaske.tv

Primary Phone Number Region

US/Canada

Primary Phone Number

612 432 0511

Age

49

Gender

Male

Ethnicity

Non-Hispanic White

Please select any of the following identifiers that apply to you

Specific resources and cash prizes may apply to you or your company based on your response to this question.

None apply

Are you a current student or Alumni of the University of Minnesota?

No

What percent of the company do you own?

If you do not have a formal entity structure in place, or have not discussed equity ownership with your cofounders, please estimate

2

County

County where you live

Washington

City

City where you live

Woodbury

LinkedIn

<https://www.linkedin.com/in/greg-shultz-0992193/>