



Section 6

Team 12

Fall 2024

Business Plan

Loo Check, LLC

An over-the-counter detection kit that contains three single-use tablets and one pH scale reference card. The kit simultaneously tests for urinary tract infections and dehydration by measuring the level of acid in your urine. The tablet works directly in the bowl, dissolving and changing color upon contact. Just drop it in after urinating, but before adding toilet paper and flushing.

Team Members:

<u>Whitney Booth</u>	<i>Whitney Booth</i>	boothwm@dukes.jmu.edu
<u>Jay Francis</u>	<i>Jay Francis</i>	francije@dukes.jmu.edu
<u>Chase Goetschi</u>	<i>Chase Goetschi</i>	goetscce@dukes.jmu.edu
<u>Zyan Grayson</u>	<i>Zyan Grayson</i>	graysoze@dukes.jmu.edu
<u>Abby Loeffler</u>	<i>Abby Loeffler</i>	loefflar@dukes.jmu.edu
<u>Aaron Lovvorn</u>	<i>Aaron Lovvorn</i>	lovvorar@dukes.jmu.edu
<u>Bryce Milne</u>	<i>Bryce Milne</i>	milne2ba@dukes.jmu.edu
<u>Ben Smith</u>	<i>Ben Smith</i>	smith4bd@dukes.jmu.edu

Executive Summary

Loo Check
Ben Smith
2004 Leonard Ave Columbus, OH 43219
Phone: 540-910-3879
E-mail: smith4bd@dukes.jmu.edu

Management:

Titles: General Manager

Industry: 325413: In-Vitro Diagnostic Substance Manufacturing

Number of Employees: 19

Amount of Financing Sought: We are securing a bank loan of \$500,000, along with \$100,000 in common stock.

Investment Sources: We are utilizing bank loans and attracting investors through common stock. Additionally, Whitney Booth, Jay Francis, Chase Goetschi, Zyan Grayson, Abby Loeffler, Aaron Lovvorn, Bryce Milne, and Ben Smith are each contributing \$100,000.

Use of Funds: Product development, marketing/sales, distribution, salaries, rent, equipment

Product/service selling price:

Year 1

\$7.13 (wholesale)

\$10.99 (retail)

Business Description: Loo Check is an LLC operating out of Columbus, Ohio. Our product is a two-in-one over-the-counter detection kit for UTIs and dehydration. We will sell our product through distributors such as Walmart and CVS, as well as our own website.

Products/Services: Loo Check is a two-in-one self-check detection kit that tests for urinary tract infections and dehydration. It includes three single-use tablets and a pH reference card for easy result comparison. In the first year, we expect to sell 152,482 units of our product. The variable cost per unit is estimated at \$0.98, with a wholesale price of \$7.13 and a retail price of \$10.99. Our supply chain includes several key components. We source methyl red from Hebei Chuanghai Biotechnology Company, located in China, and bromothymol blue from Astitva Chemicals, located in India. Acetic acid is sourced from TTC Industrial Area, which is also located in India. Sodium acetate is supplied by Grainger, located in the U.S., and magnesium stearate provided by LFA Machines, also based in the U.S.

Competitive Advantage: Our innovative, user-friendly self-check detection kit is eligible for utility patent protection due to its unique functionality. It features a two-in-one dissolvable tablet that operates directly in the toilet bowl to indicate whether users have a urinary tract infection or are dehydrated—an innovation that’s completely new to the market.

Markets: Our primary market is connected bohemians—tech-savvy young singles, couples, and families who are early adopters of new trends. This segment is expected to grow 0.4% over the next five years, reaching 1,939,321 households. Our secondary market is young and influential—tech-savvy trendsetters who have a significant impact on their communities. This segment is projected to grow 0.4% over the next five years, reaching 1,207,722 households. Our tertiary market includes park bench seniors—individuals aged 65 and older who are retired or nearing retirement, single, and childless. This segment is anticipated to grow 2.42% over the next five years, reaching 1,201,258 households.

Distribution Channels: Our product will be available through our direct online website, as well as distribution channels such as Walmart, and CVS.

Competition: Our direct competition consists of at-home dipstick urine tests and the option to collect a urine sample at home and drop it off at the doctor’s office for lab analysis. Regarding dipstick urine tests, our primary competitor is AZO, as they are another over-the-counter brand focused on UTI testing. Indirect competitors include those that provide online or virtual services, such as telehealth platforms.

Financial Projections (Unaudited):

	2021	2022	2023	2024	2025
Revenue:	\$1,469,774	\$3,372,927	\$7,039,086	\$12,007,119	\$24,107,164
EBIT:	\$(1,613,147)	\$48,489	\$2,978,377	\$7,512,197	\$18,439,812

Elevator Pitch: Have you ever put off addressing minor health symptoms because seeing a doctor felt like a hassle? When busy, it is easy to overlook your health, but early detection is key to reducing the risk of serious issues. With Loo Check, you can proactively address one of the most widespread health issues: urinary tract infections, along with a primary risk factor: dehydration. While intended for home use, our product is compact enough to fit in your pocket, purse, or wallet, allowing for easy, on-the-go convenience. UTI and dehydration symptoms don’t wait for the right moment, so why should you?

Product/Service Description: Our product is a self-check detection kit designed to simultaneously address two prevalent health concerns: urinary tract infections and dehydration. Our kit is comprised of three single-use tablets, but only one is needed per test. Each tablet is round, flat-faced, and approximately the size of a quarter. To test for

these health risks, our kit uses methyl red and bromothymol blue indicator dyes, along with acetic acid, sodium acetate, and magnesium stearate, to measure acid levels in urine. To start, drop a tablet into the toilet after urinating but before adding toilet paper and flushing. The tablet will dissolve and change color based on the pH level of the urine. A pH color reference card will also be included to help users compare results and assess their status.

Competitive Advantage: Our product differentiates itself in the market by eliminating the extra step of transferring urine into a separate cup. Unlike other self-test UTI or dehydration kits, it works directly in the toilet bowl. While other at-home tests assess just one health risk, our two-in-one kit screens for multiple health concerns at once. Designed for home and on-the-go use, users can check for UTIs and dehydration without being restricted to their home. Additionally, by utilizing dry granulation in tablet production and combining it with proactive testing and strategic outsourcing, we gain a competitive edge in the market.

Value Proposition: Since the Covid-19 pandemic, demand for self-testing solutions has increased as individuals seek convenient ways to monitor their health. This shift, combined with the growing self-care trend on social media that emphasizes physical and mental wellness, positions our product as an effective solution in the expanding market. Our low manufacturing costs and competitive pricing enable strong profit margins, offering attractive returns on investment while minimizing risks for our investors.

Business Strategy: Our business strategy focuses on differentiation, offering an innovative, convenient solution for UTI and dehydration detection. We are also committed to sustainability, using recycled materials for packaging to attract eco-friendly consumers. As a make-to-stock organization, we will build backstock in the early years to ensure a consistent supply, allowing us to explore partnerships and distribute free samples for initial promotion.

Business Location: Loo Check, LLC will be based in Columbus, Ohio, home to Ohio State University, the third-largest university in the U.S. by enrollment (Statista, 2023).

Columbus's large population of young adults and college aged students provides a strong foundation for reaching our target market. Furthermore, proximity to Ohio State University

enables us to partner with both the on-campus Student Health Center and the Wexner Medical Center, which includes a specialized Center for Women's Health, to distribute free samples and boost brand awareness. Additionally, the Cleveland Clinic, ranked as the second-best hospital in the United States (Statista, 2024), is just two hours from Columbus. Its renowned reputation allows us to engage influential doctors as advocates for our product, enhancing credibility and eliminating stigmas associated with using UTI products.

Describe any outsourced functions: To reduce costs and increase productivity, Loo Check has opted to outsource the assistance of chemical engineers and customer service. Customer service representatives will manage inquiries for faster issue resolution and improved customer satisfaction, while our chemical engineers provide expertise in chemical processes, formulations, and regulatory compliance. Ultimately, this approach allows us to collaborate with skilled professionals, enabling us to focus on our core competencies.

Financial Performance: In the first year, we project a net loss of \$1,658,147. However, we expect to become profitable in year two, with earnings before interest and taxes reaching \$18,439,812 by the end of year five. This growth is largely driven by the expansion of our distribution channels and the addition of new target markets

Exhibit 6: Marketing Mix

Product/Service Branding						
<p>In developing our branding, we aimed to quickly capture viewers' attention while simultaneously conveying our core values effectively. Our slogan, "Because your bathroom breaks deserve a check-up!" reflects our commitment to making health and wellness convenient and simple for everyone. Our logo features an image of our product, a dissolvable tablet, against a brown background to represent our commitment to sustainability through eco-friendly packaging. The check mark symbolizes the efficiency of our product, highlighting how using Loo Check makes identifying health issues as simple as checking a box. http://loochek.com/</p>						
Pricing						
	2025	2026	2027	2028	2029	
Unit Variable Cost:	\$0.98	\$0.99	\$0.97	\$0.99	\$1.01	
Wholesale Price:	\$7.13	\$7.13	\$7.13	\$7.70	\$7.70	
Retail Price:	\$10.99	\$10.99	\$11.99	\$11.99	\$13.99	
<p>We are initially implementing a penetration pricing strategy to quickly gain market share by offering our product at an attractive price point. Through minimizing expenses related to production, transportation, and distribution, we can provide a more appealing price to retailers, who can then pass those savings on to consumers. Competitors in the UTI and dehydration test market, typically retail between \$10 and \$20, so our pricing will remain competitive even as it gradually increases. Though penetration pricing is a short-term strategy, we are building long-term loyalty, ensuring that when we raise prices, our customers will remain invested in our brand.</p>						
Distribution/Location Strategy						
<p>We plan to distribute our product through Cardinal Health, a leading pharmaceutical wholesaler. This partnership will enable access to major retailers such as CVS and Walmart. CVS is an ideal fit for our product because it is a health-focused retailer with a diverse customer base, providing a competitive environment alongside similar offerings. Walmart, known for their low prices and reliable quality, has also built a loyal customer base that will benefit our product launch. The existing loyalty will encourage frequent purchases and generate interest in new products, positioning us for success in this market.</p>						
Promotional Strategy						
	2025	2026	2027	2028	2029	
Total IMC Budget:	\$630,744.35	\$630,744.35	\$968,061.74	\$968,061.74	\$1,110,212.93	
Campaign 1: Healthy Lifestyle	\$630,744.35	\$630,744.35	\$630,744.35	\$630,744.35	\$630,744.35	

Campaign 2: Convenience	\$0.00	\$0.00	\$337,317.39	\$337,317.39	\$337,317.39	
Campaign 3: Ease of Use	\$0.00	\$0.00	\$0.00	\$0.00	\$142,151.19	
Describe specific promotional campaigns through which you will use your budget to communicate with your target market: One promotional campaign we plan to implement involves partnering with the Ohio State University Health Center. We will supply them with free samples to distribute to students, allowing us to directly engage our target audience and encourage trial of our product. Additionally, we will offer exclusive 10% discounts for students when they present their school IDs at check out. We will also use our social media platforms to encourage followers to sign up for our email list by highlighting special promotions or exclusive content available only to subscribers.						
No. of Salespeople:	2	2	3	3	3	If applicable
Compensation Method: \$68,850 Salary + 10% bonus						
Describe your professional sales management plan: Our sales force will be organized by customer segment: one representative will work alongside the eCommerce specialist to target direct online consumers, while the other will focus on retailers and wholesalers. In year three, an additional salesperson will join the team to work closely with the representative focused on the wholesale and retail markets. The team will use SMART goals across all business units to guide their efforts, ensuring that objectives are Specific, Measurable, Achievable, Relevant, and Time-bound. Additionally, our sales team will focus on developing relationships with Ohio State's Campus Health Center and recruiting doctors at Ohio State University Medical Center and Cleveland Clinic as advocates. By creating a network of advocates within the medical community, we will enhance our credibility and build loyalty. Doctors who believe in our product will promote it through advertisements, speaking engagements, and written articles that highlight its accuracy and convenience. Furthermore, our sales team will attend pharmaceutical trade shows to showcase our product and engage directly with potential customers and industry professionals. These events provide valuable opportunities for networking, gaining insights into market trends, and demonstrating our product's benefits.						

Exhibit 8: Quality

Indicate the Dimensions of Quality on which you will focus.	Why is this dimension important, given your industry & target market?	Identify the Quality Step(s) on the Process Flowchart / Service Blueprint to which this corresponds.
Consistency	We aim for zero variation in the chemical make-up of each tablet. This also covers ensuring the purity of the raw materials.	Q1 & Q2
Convenience	Tablets dissolve in a timely and hygienic manner	Q2
Reliability	We want each tablet to give accurate tests to each customer	Q3
Perceived Quality	Packaging that looks and feels high-quality and a reference card that is accurate and easy to comprehend	Q4

Use the space below to describe any additional Proactive Quality Assurance Plans that are not connected to a specific activity on your Process Flowchart / Service Blueprint.

To proactively reduce errors, we will seek a second opinion from our outsourced chemical engineers. Their expertise will help us identify potential issues and enhance our quality assurance process. Additionally, we will begin each production day with a test batch. This involves producing a smaller batch of tablets first and testing them immediately after production to confirm they meet our quality standards. This process will verify the tablets' dissolvability, ensure the color change functions correctly, and check that the reference cards display accurate information. If the test batch is successful, it will suggest that the remainder of the day's production should proceed without issues.

Describe any reactive quality assurance plans. Include a recovery plan should a customer receive poor quality goods and/or services.

Should a customer purchase a defective product, we will have outsourced customer service in place to ensure that they receive not only a refund but also a replacement product. Given that our product is a test kit, it can be challenging for customers to determine if there is an active defect. Therefore, we must maintain a higher than usual level of quality assurance to ensure that no defects make it into our finished goods inventory.

If you will utilize a quality/process improvement methodology, indicate which:

☐ NA ☐ TQM ☒ Six Sigma ☐ ISO ☒ Benchmarking

Provide a specific explanation of how your chosen quality methodology relates to your business and how it will be applied:

We plan to utilize Six Sigma and the DMAIC methodology to minimize errors in our production process. This approach focuses on defining, measuring, analyzing, improving, and controlling production activities to reduce variability. We aim for minimal variation to reduce false positives and negatives and to guarantee that our users receive consistently reliable results. Through production and testing, our goal is to identify defects in the initial years and use those findings to refine our processes. We will accomplish this by producing small batches each workday to monitor for variations and outsourcing chemical engineers to help identify ways to enhance our product. Additionally, we will benchmark our production and compare our processes to those of other companies in similar industries, such as Alka-Seltzer and AZO. Alka-Seltzer was selected for benchmarking due to its dissolving tablet design, which served as the basis for our own product. AZO was selected because they produce at-home UTI test strips and are one of our direct competitors. We will be benchmarking with publicly available data, including metrics such as dissolving time, size, shape and ease of use, where applicable. This benchmarking will be applied across both our dissolving process and our testing/refinement process to ensure we achieve the highest standards possible.

Exhibit 9: Inventory, Suppliers & Distribution

RAW MATERIAL INVENTORY & SUPPLIER SELECTION *If your organization does not have raw material inventory, please check this box: ☒ NA*

Item(s)	Supplier Name & Location (City, State, Country)	Reason for selecting this supplier	Supplier lead time (in days)	Frequency of replenishment (in days)	System of Management	Mode(s) of Transportation
Bromothymol Blue	Astiva Chemicals,	Consistent availability for	30-40 days	Variable	Fixed Quantity System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail

	Balitha, Vapi, Gujarat, India	crystalline bromothymol blue and take special bulk requests (<i>"1kg Bromothymo l Blue Powder," n.d.</i>)				<input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Methyl Red	Hebei Chuanghai Biotechnolog y Company, LTD (Heshui City, Hebei Province, China)	Convenient source to find crystalline methyl red, which is hard to find. Can supply up to 500kg monthly. (<i>Shenyang Simchoice Chemical Co., Ltd., n.d.</i>)	40-50 days	Variable	Fixed Quantity System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Acetic Acid	TTC Industrial Area, Turbhe, Navi Mumbai - 400705, Maharashtra, India	One of few suppliers of Acetic Acid in crystalline form, specializes in large quantity orders. (<i>"Acetic Acid Supply," n.d.</i>)	30-40 days	Variable	Fixed Quantity System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Sodium Acetate	Grainger Columbus, OH, United States	A reliable and trustworthy brand with a branch in Columbus, so our lead time will be shortened (<i>"Sodium Acetate, Anhydrous," n.d.</i>)	5 days	Variable	Fixed Quantity System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input type="checkbox"/> Waterway <input type="checkbox"/> Air
Magnesium Stearate	LFA Machines, 6601 Will Rogers Blvd	A trustworthy and highly regarded brand, they	2-8 days	Variable	Fixed Quantity System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input type="checkbox"/> Waterway <input type="checkbox"/> Air

	Fort Worth, Texas, United States	can supply in bulk with fast shipping, as they have a branch open in the United States. (<i>"Magnesium Stearate," n.d.-a</i>)				
--	----------------------------------	--	--	--	--	--

FINISHED GOODS INVENTORY If your organization does not have finished goods inventory, please check this box: ☐ NA

	Finished goods produced (per hour)	Frequency of shipping finished goods	Average level of Finished goods inventory on site	Amount of safety stock on site(weekly)
At the end of Year 1	152.48	7 days	1,579.3	109
At the end of Year 2	349.93	7 days	3,624.3	250
At the end of Year 3	684.14	7 days	7,084.5	489
At the end of Year 4	1,144.79	7 days	11,857.5	815
At the end of Year 5	1,022.49	7 days	10,948	1,456

What is the lifespan of your finished goods inventory?	<input type="checkbox"/> NA	Finished goods have a shelf life of 18 months (Grainger, 2024)
How will you manage perishability of Finished Goods Inventory?	<input type="checkbox"/> NA	To manage this, we will hold finished goods for up to a year and a half and minimize production to a safe point to avoid excess finished goods.

Name of transportation provider/carrier	Reason(s) for selecting this provider/carrier	Frequency of Pick Up / Drop off
UPS	Can accommodate smaller orders in the short term at a lower cost than bulk transportation, with 97.6% consistency (Madlem, 2024)	7 days
Swift Transportation	Based in Cleveland (Swift, 2024), cheaper transportation than UPS when dealing with higher mileage and volume	7 days