Describe your proposed idea/technology value proposition. *

By using cutting-edge technology- Artificial Intelligence to citrus fruit sorting, Project Citrush is ready to upend the food business. Citrush is a revolutionary citrus sorting device that makes use of machine vision and neural networks to improve produce quality, accelerate increasing profitability for citrus growers globally, and optimize grading procedures.

What is the problem you are trying to address?
*

We would like to address the several critical challenges faced by citrus growers in the food industry. One is inefficient sorting, Quality Variability, Resource Optimization and many more.

Who is your target customer?
*

Our target customers are focused on citrus growers in the food industry.

What do you think are the long term impact of your product/service?
*

We see CITRUSH as machine on which it will unleash it's flexibility in the future. With the help of Artificial Intelligence and Neural Networks, we foresee CITRUSH will not only detect Citrus fruit but also other fruits with their complex characteristics and be able to separate them in their appropriate characteristics whether good and bad.

What are the limitations of your technology/product/service?
*

Like any complex machinery, Citrush requires regular maintenance and upkeep. This includes cleaning, calibrating sensors, and updating software. As technology evolves, Citrush may require hardware and software updates to remain effective. Ensuring long-term adaptability and compatibility can be a challenge.

Is your product/technology/service an original idea, or are there any similar products/technologies available in the market? If yes, please cite the existing product and provide a brief description of the innovation or enhancement in your proposed technology/product/service. *

None. Project Citrush will be the first automated, AI-based citrus sorting machine that would exist in the Citrus Capital of the Philippines-Nueva Vizcaya. Note that even though the DOST funded machine existed, it was not yet influenced by automation, it was purely manual.

What makes your product/technology/services unique? *

The adaptation of Artificial Intelligence to capture real-time state of the freshly harvested fruits and be able to separate them according to its labels, and the feature of having a GSM module to remotely control the machine.

Who are your target customers? *

Our target customers are the Citrus growing farmers in Nueva Vizcaya and in nearby provinces.

How big is this market? *

Our project will cater the existing 15-20 citrus farms in the Municipality of Kasibu. This excludes the farmer-traders and traders since their stocks were already filtered to good-quality Citrus.

What is your advantage over your competitors? *

An innovative example of the use of AI and machine learning in the food business is Project Citrush. Beyond the machine itself, its long-term effects motivate other farmers and industries to adopt cutting-edge technology, spurring industry innovation. Long-term citrus farming operations will become more productive thanks to Citrush's automation and AI-driven sorting. Citrus fruit growers can process bigger volumes of fruit more quickly, which lowers labor costs and boosts total output.Project Citrush will adopt partnership and collaboration strategy with Government together with its agencies like DTI, DOST, LGU, DA, and etc. Government collaborations can offer long-term stability and steady revenues streams because this project would benefit the promotion of the province primary product. Government agencies typically possess vast networks and well-established channels. Collaborating with them can grant as entry into a broader and more firmly established market. It is a win-to-win situation because as we generate revenue with our machine the Government will also preserve the quality of our citrus that will be offered not only in the province but also nearby places. Citrush's appeal is boosted by the possibility of helping to achieve sustainability goals, generating employment, and enhancing working conditions in rural communities. Its growth prospects are further improved by ongoing innovation and cooperation with agricultural groups and governmental organizations. With these advantages, Project Citrush is positioned to grow rapidly and become a market leader in citrus sorting technology over the next few years.

What is the potential for growth? *

As it tackles key issues in the citrus farming sector while incorporating cutting-edge technologies, Project Citrush has enormous development potential. Citrush can revolutionize citrus farming by improving fruit quality, lowering waste, and making the best use of resources thanks to its precision sorting capabilities powered by Machine Vision and Neural Networks. It is positioned for a global market because of its flexibility to different citrus cultivars and local conditions. Citrush ideally fits these trends as consumer demand for premium, sustainably produced citrus fruits rises, attracting citrus producers all around the world.

What is your go to market strategy? *

Project Citrush will adopt partnership and collaboration strategy with Government together with its agencies like DTI, DOST, LGU, DA, and etc. Government collaborations can offer long-term stability and steady revenues streams because this project would benefit the promotion of the province primary product. Government agencies typically possess vast networks and well-established channels. Collaborating with them can grant as entry into a broader and more firmly established market. It is a win-to-win situation because as we generate revenue with our machine the Government will also preserve the quality of our citrus that will be offered not only in the province but also nearby places. Citrush's appeal is boosted by the possibility of helping to achieve sustainability goals, generating employment, and enhancing working conditions in rural communities. Its growth prospects are further improved by ongoing innovation and cooperation with agricultural groups and governmental organizations. With these advantages, Project Citrush is positioned to grow rapidly and become a market leader in citrus sorting technology over the next few years.

How much can your venture grow in the next 3 years?
*

A lot of possibilities can happen in the next 3 years, but one thing is for sure, Citrush will continue to embark a legacy in the field of agriculture. Citrush will continue to sort and provide ease to farmers. Also, for the next 3 years we are in a continuous process of research for the Project Citrush to open new possibilities also on other fruits.

What is your business model? *

Subscription-based Model

How will you monetize your product/technology/services?

*
Project Citrush would apply the Subscription based model. This would allow us to further study the relevance of our machine. The customer will have a subscription depending the time agreed upon, which will allow the customers to pay a reccuring price at regular intervals.

For whom are you creating value and who are your most important customers?

*

Since Nueva Vizcaya is known for being the Citrus Capital of the Philippines, we would like to offer our machine to Cagayan Valley Farmers. With plantation, business of Citrus.

Do you have existing customers/users?

*

Yes

How will you reach your target customers?

*

We can reach our target customers with the help of the Government and its agencies because they often attract media attention, raising awareness about our machine and potentially attract new customers or investors.

In what ways does your product/technology/services incorporate environmentally friendly practices or contribute to sustainable development goals?

*

-Project Citrush can incorporate environmentally friendly practices and contribute to sustainable development goals in several ways: -Reduced Food Waste: Citrush helps reduce food waste by accurately sorting citrus fruits based on size, color, ripeness, and defects. This means fewer fruits are discarded, minimizing the environmental impact associated with wasted produce. -Resource Optimization: By identifying the optimal harvest time for each fruit, Citrush helps citrus growers optimize their resource use, including water, fertilizers, and pesticides. This reduces the environmental footprint of citrus farming. -Sustainability in Agriculture: The reduction in waste and resource optimization aligns with Sustainable Development Goal (SDG) 12: Responsible Consumption and Production, which aims to ensure sustainable consumption and production patterns. -Energy Efficiency: Citrush can be designed with energy-efficient components and processes, reducing its overall energy consumption during operation. This aligns with SDG 7: Affordable and Clean Energy, which promotes clean and efficient energy use. -Automation and Labor Efficiency: Citrush's automation reduces the need for manual labor in the sorting process. This can lead to improved working conditions for agricultural laborers and may align with SDG 8: Decent Work and Economic Growth. -Biodiversity Conservation: By reducing the need for chemical treatments and promoting responsible farming practices, Citrush can indirectly support biodiversity conservation, which is essential for sustainable ecosystems (SDG 15: Life on Land). -Carbon Footprint Reduction: Citrush can potentially reduce the carbon footprint associated with citrus farming by optimizing resource use and reducing waste. This aligns with SDG 13: Climate Action. -Promoting Sustainable

Farming: The adoption of advanced technology like Citrush can serve as a model for sustainable and responsible farming practices, inspiring other agricultural sectors to embrace similar technologies and approaches. -Global Reach: Citrush's adaptability to different citrus varieties and regions enables its use in various parts of the world, contributing to global efforts to achieve the Sustainable Development Goals.

How do these considerations align with the overall mission of your venture?

*

Citrush's capacity for precise citrus fruit sorting ensures that fewer fruits are rejected because of flaws or inadequate ripeness. By minimizing waste and enhancing the value of each harvest, this directly supports the goal of boosting profitability for citrus growers. Citrush assists growers of citrus to make the most of all available resources, such as water, fertilizer, and pesticides, by determining the best time to harvest each fruit. This supports the goal of increasing profitability by reducing resource waste and boosting resource efficiency. By minimizing the environmental impact of citrus production, Project Citrush encourages sustainable agriculture. This supports the mission's objective of improving citrus production quality while reducing unfavorable environmental effects. Citrush's automation decreases the need for manual labor, increasing labor productivity and possibly improving farm laborers' working conditions. This fits well with the mission's overarching objectives of improving citrus agricultural productivity and profitability. Citrush can have a global impact by enhancing sustainability and profitability in citrus farming all over the world because of its adaptability to various citrus varieties and geographical locations. This is in line with the project's goal of helping citrus growers in general.

Describe any social or community-related benefits that your product/technology/services brings to the table.

*

The adoption of citrus technology may result in job openings, particularly in areas with a high concentration of citrus growing. Jobs in machine operation, maintenance, technical support, and training could become available. This could contribute to improved economic stability and lower unemployment rates in rural areas. Due to Citrush's automation, sorting requires less manual labor than before. By reducing the physical demands of repetitious sorting tasks and maybe increasing their level of job satisfaction overall, this can lead to better working conditions for farm workers. Modern technology is used in citrus farming enterprises like Citrush, which increases the requirement for skilled workers who can run and maintain the equipment. Providing opportunities for specialized training and career growth can aid local communities by motivating educational and skill-development activities. Offering training courses, workshops, and educational initiatives on citrus farming and technology to the neighborhood residents is one way that Project Citrush can interact with them. This involvement of the community can encourage a spirit of cooperation and partnership. Citrus technology can be used on a scale that works for both enormous commercial citrus fields and more small, family-run companies. Making cutting-edge sorting technology accessible to smallholders will increase their competitiveness and income, helping to ensure the long-term viability of farming on a small scale. In conclusion, Project Citrush has the potential to improve working conditions, enhance education and skill development, increase community

engagement, and bring about a variety of social and community-related advantages. These advantages may enhance the sustainability and general well-being of the citrus food industry.

How do you plan to ensure a positive impact on both local and broader societal levels?

*

Ensuring a positive impact on both local and broader societal levels with Project Citrush involves a strategic approach that considers various stakeholders, sustainability goals, and community engagement. 1. Stakeholder Engagement: Engage with local citrus growers, agricultural associations, and community representatives to understand their specific needs, challenges, and priorities. Collaborate with local stakeholders to ensure that Citrush technology aligns with their goals and values. 2. Customization and Adaptability: Design Citrush technology to be adaptable to different citrus varieties, farm sizes, and regional conditions, ensuring its relevance and applicability at the local level. 3. Local Job Creation: Promote the use of Citrush within local citrus farming communities, emphasizing the potential for job creation, improved working conditions, and skill development. 4. Training and Education: Establish training programs and workshops that empower local communities with the knowledge and skills needed to operate and maintain Citrush equipment effectively. 5. Community Outreach: Conduct outreach programs, including informational sessions and demonstrations, to educate local communities about the benefits of Citrush and sustainable agriculture practices. 6. Sustainability Initiatives: Incorporate sustainability features into Citrush technology, such as energy efficiency, waste reduction, and resource optimization, to align with broader societal goals of environmental responsibility. 7. Collaboration with Agricultural Organizations: Collaborate with agricultural organizations and research institutions to share knowledge, conduct research, and develop best practices that benefit both local farmers and the broader food industry. 8. Community-Based Projects: Support community-based projects related to agriculture, education, and environmental conservation, demonstrating a commitment to the well-being of local communities. Transparency and Accountability: 9. Maintain transparency in Citrush operations, including data collection and usage, to build trust with local stakeholders and ensure accountability for environmental and social impacts. 10. Monitoring and Assessment: Regularly monitor and assess the social and environmental impact of Citrush technology at both local and broader levels. Collect feedback from users and communities to identify areas for improvement. 11. Global Engagement: Promote Citrush as a solution with global relevance, sharing its success stories and positive impacts to inspire broader adoption of sustainable food industry practices.

How many founders do you have?

*

5

List your founders and their respective roles.

*

Ira Mae L. Carreon - CEO/ In charge of SOFTWARE

Cris Ismael J. Rodriguez - In charge of all the HARDWARE structure

Christian Neil C. Guerrero - In charge of the paper works and EXTERNAL RELATIONS

Jerry G. Felix - In charge of pricing and audit

Dhona Marie C. Diama - In charge of market research and studies and served as our financial advisor

What skills and experiences does each founder contribute to the success of your startup?

*

Here's an analysis of their roles and contributions of Project Citrush: - Ira Mae L. Carreon (CEO/In charge of SOFTWARE): Software Expertise: As the CEO and head of software, Ira Mae likely has a strong background in software development, programming, and technology. Her expertise is crucial for developing and maintaining the software products or platforms your startup offers. Strategic Leadership: Being the CEO, Ira Mae likely provides strategic direction and vision for the company. Her leadership ensures that the software development aligns with the overall business goals. - Cris Ismael J. Rodriguez (In charge of all the HARDWARE structure): Hardware Expertise: Cris's role involves managing the hardware infrastructure of your startup. He likely has a deep understanding of hardware components, networking, and system architecture. Technical Implementation: Cris plays a crucial role in ensuring that the hardware systems are robust, scalable, and meet the technological requirements of your software products. -Christian Neil C. Guerrero (In charge of the paper works and EXTERNAL RELATIONS): Administrative Skills: Christian Neil's responsibility for paperwork and external relations suggests that he is adept at handling administrative tasks, documentation, and compliance, which are essential for the smooth operation of any business. External Networking: He may also be the face of your startup in external interactions, such as partnerships, client relationships, or investor communications. -Jerry G. Felix (In charge of pricing and audit): Financial Expertise: Jerry's role in pricing and audit suggests that he has a strong financial background. He is likely responsible for pricing strategies, financial analysis, and ensuring financial compliance. Risk Management: Jerry's involvement in audit may also indicate that he oversees risk management and internal controls to protect the financial health of the company. -Dhona Marie C. Diama (In charge of market research and studies and served as our financial advisor): Market Research and Financial Expertise: Dhona Marie's role as in charge of market research and studies suggests that she brings market insights and analysis to the table. Her experience as a financial advisor indicates proficiency in financial planning and management. Strategic Insights: She likely provides valuable data-driven insights for decision-making, helping the company understand market trends and customer needs.

Do you have a mentor/faculty helping you with your venture?

*

Engr. Teofilo Sagabaen