SKNRA RoboMindset Summer Camp 2023 Report

RoboMindset: Nurturing Innovative and Adaptive Thinking through Robotics Program Summer Camp

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Contents

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1. Introduction

The RoboMindset Summer Camp 2023 emerged as a beacon of innovation and education, offering an enriching experience for participants aged 13 to 18 years. This dynamic initiative was meticulously designed to unlock the world of robotics, programming, and technology for young learners. Set against the backdrop of the powerful theme "Clean Tech for Clean Water: Using Robotics to Ensure Safe and Sustainable Access to Water and Sanitation," the camp seamlessly fused technological exploration with a critical global challenge. This report serves as a comprehensive account of the camp's structure, activities, achievements, feedback, and insightful recommendations for its future iterations.

The camp's very foundation was rooted in the belief that fostering a curious, adaptive, and innovative mindset among youth is integral to shaping the leaders and problem solvers of tomorrow. By harnessing the enthusiasm for robotics and technology, the camp endeavored to ignite participants' passion for Science, Technology, Engineering, Arts, and Mathematics (STEAM) subjects, instilling an appreciation for their transformative potential.
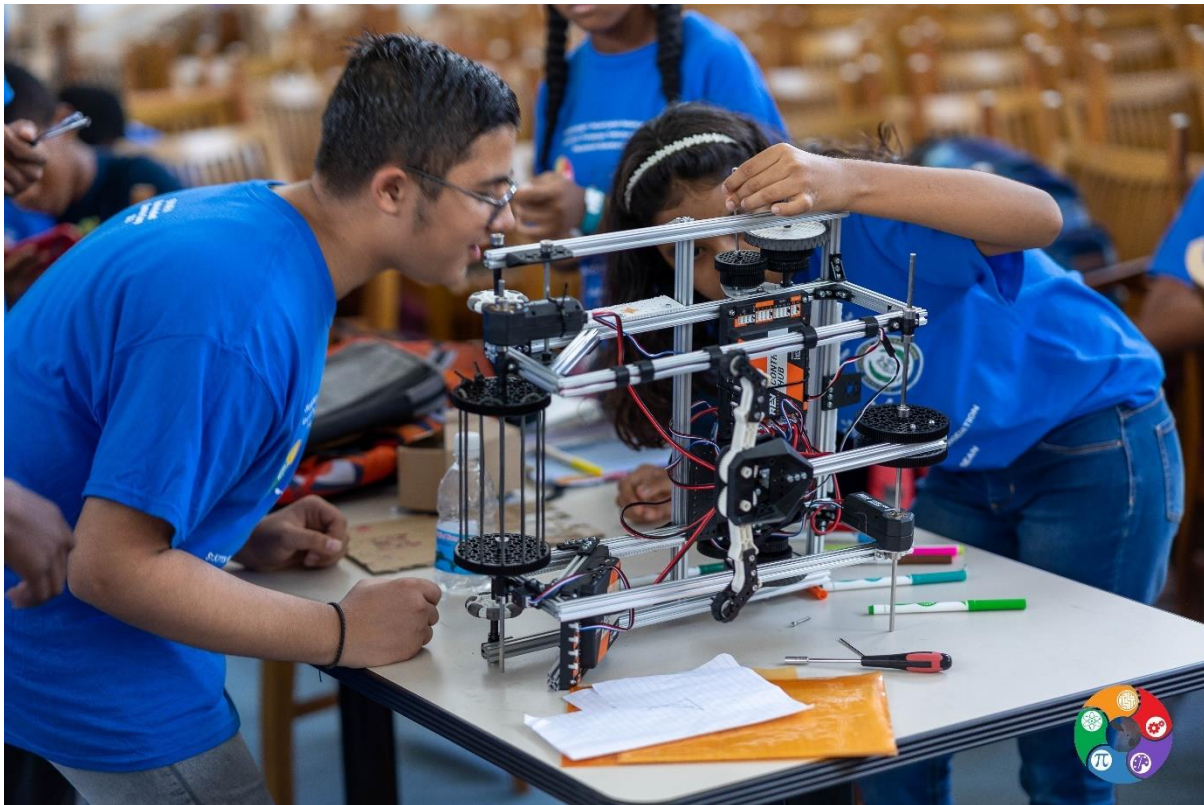
1.1. Theme: Clean Tech for Clean Water

The theme of "Clean Tech for Clean Water" resonated deeply with the camp's overarching mission. This thematic focus elegantly merged technological advancement with a fundamental societal need – ensuring access to clean and safe water. The theme served as a call to action, inspiring participants to

explore the innovative applications of robotics and technology in tackling pressing global issues. By integrating the principles of clean technology into water and sanitation solutions, participants were invited to ponder sustainable methods for safeguarding this vital resource for generations to come.

1.2. Camp's Objectives

The primary objectives of the camp were multifold. Firstly, it aimed to provide participants with a hands-on and immersive introduction to robotics, programming, and technology. Secondly, it sought to cultivate problem-solving skills, creativity, and teamwork among participants. Thirdly, the camp aimed to raise awareness about water and sanitation challenges and underscore the pivotal role that robotics can play in addressing these issues. The camp, therefore, aspired to create not just proficient coders and robotics enthusiasts but conscientious thinkers who consider the ethical dimensions of their work.

1.3. Organization and Activities

The camp spanned four transformative weeks, a period marked by a diverse array of activities that catered to the multifaceted needs of the participants. Robotics workshops, Scratch coding sessions, team projects, guest lectures, and even a social media challenge collectively formed the bedrock of the camp's curriculum. The strategic organization of these activities aimed to foster skill development, collaborative learning, creativity, and an understanding of the real-world implications of technology.

1.4. Outcomes and Impact

The outcomes of the RoboMindset Summer Camp 2023 were resoundingly positive. The camp attracted over 150 participants, a figure that far surpassed the initial projection of 110. This exceptional response signified not only the camp's relevance but also the youth's eagerness to engage with STEAM subjects. Participants exhibited heightened enthusiasm for robotics, demonstrated improved technical skills, enhanced their confidence in presentation, and showcased effective teamwork.

1.5. Feedback and Recommendations

Participant feedback underscored the camp's success, with most expressing high satisfaction and enthusiasm. Parents' testimonials mirrored this sentiment, highlighting the camp's influence on their children's academic interests and personal growth. Based on the camp's outcomes and participant insights, several recommendations emerged for future iterations. These included diversifying age groups, increasing the budget for enhanced resources, fostering partnerships with local institutions, and expanding thematic exploration to ensure sustained relevance and appeal.

In conclusion, the RoboMindset Summer Camp 2023 transcended the traditional boundaries of education, emerging as a transformative platform that ignited passion, honed skills, and created a deep sense of purpose. By blending technology, learning, and a critical global concern, the camp reaffirmed

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the potential of young minds to effect positive change. This report not only celebrates the camp's accomplishments but also lays the foundation for future iterations that hold the promise of nurturing even more young innovators and problem solvers.

2. I. Camp Organization

2.1. Objective

The primary objective of the RoboMindset Summer Camp was to provide a comprehensive and immersive hands-on learning experience that went beyond traditional classroom settings. The camp aimed to create an environment where participants could actively engage with robotics and technology, fostering critical skills such as creativity, problem-solving, and teamwork. These skills were not only seen as essential for personal growth but also as indispensable qualities for addressing real-world challenges.

The central focus of the camp's objective was to instill an understanding of the profound significance of clean water access through the lens of robotics. By integrating the theme of "Clean Tech for Clean Water," participants were encouraged to conceptualize innovative ways in which technology and robotics could contribute to ensuring safe and sustainable water and sanitation solutions. The objective extended beyond just teaching technical skills; it aimed to cultivate a mindset of adaptability, innovation, and ethical responsibility in the participants, inspiring them to become future leaders and problem solvers.

2.2. Theme

The camp's theme, "Clean Tech for Clean Water," epitomized the convergence of technological innovation and humanitarian concerns. The theme was chosen purposefully to spotlight the pivotal role that technology and robotics play in addressing pressing global challenges related to clean water access and sanitation. By highlighting "Clean Tech," the theme underscored the application of technology for socially responsible goals, aligning with the growing emphasis on leveraging technology for positive impact.

The theme further reinforced the interconnectivity of various disciplines within the camp's framework. Robotics, technology, engineering, arts, and mathematics were united in a concerted effort to create meaningful solutions. It aimed to broaden participants' perspectives by encouraging them to approach complex problems holistically, considering both technological and ethical dimensions.

2.3. Target Audience

The camp's target audience encompassed students aged 13 to 18 years who demonstrated a genuine interest in robotics and technology. The selection of this age group was strategic, aiming to capture participants at a stage when they were developing their core interests and beginning to shape their

academic and career paths. By engaging youth during this crucial phase, the camp aimed to spark curiosity and passion that could potentially guide their educational and vocational choices.

The initiative's Science, Technology, Engineering, Art, and Mathematics (STEAM) Robotics Initiative reflected a recognition of the interdisciplinary nature of modern challenges. STEAM education is designed to equip students with a holistic set of skills that bridge multiple fields. The camp sought to harness the enthusiasm of participants for robotics and technology while seamlessly integrating art and other disciplines to encourage well-rounded and adaptable thinking.

2.4.   Venues

The selection of venues, the Immaculate Conception Catholic School in St. Kitts and the Nevis Disaster Management Department (NDMD) in Nevis, was pivotal in creating an optimal learning environment. These venues were chosen for their well-equipped facilities that could accommodate both theoretical and practical aspects of the camp's curriculum.

The geographical spread of the venues also allowed for accessibility to participants from various regions within the Federation of St. Kitts and Nevis. This strategic choice aimed to promote inclusivity and minimize logistical barriers, enabling a diverse group of participants to engage in the camp's transformative experience.

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2.5. Staffing

The staffing of the camp with experienced instructors and mentors was instrumental in upholding its educational quality. Involving members of the St. Kitts and Nevis FIRST Global Robotics international team and mentors ensured that participants had access to knowledgeable and inspiring figures from the field.

The presence of mentors and experienced individuals went beyond teaching technical skills. They acted as role models, fostering a supportive environment where participants could seek guidance, ask questions, and develop mentor-mentee relationships. This dynamic contributed to a holistic learning experience, nurturing not only technical proficiency but also personal growth and professional aspirations.

3. II. Activities and Curriculum

3.1. Robotics Workshops

The cornerstone of the RoboMindset Summer Camp's curriculum lay in its intensive and engaging robotics workshops. These workshops were meticulously designed to introduce participants to the diverse world of robotics, providing them with practical experiences that extended beyond theoretical

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knowledge. Participants were exposed to a range of robotic platforms, allowing them to comprehend the fundamental components, mechanics, and principles that underpin various types of robots.

Crucially, the workshops provided participants with hands-on experience in programming robots to accomplish specific tasks. Using the Java programming language, participants were guided through the process of writing code to control robot movement, interactions, and responses. This programming aspect not only demystified the seemingly complex world of coding but also equipped participants with tangible skills that are highly relevant in today's technology-driven landscape.

3.2. Scratch Coding Sessions

Complementary to the Java-based programming workshops were the Scratch coding sessions. These sessions were designed to cater to participants with varying levels of coding experience, ensuring an inclusive and accessible learning environment. Scratch, a visual programming language, allowed participants to experiment with coding concepts without the complexities of syntax. The sessions facilitated a solid foundation in coding fundamentals, as participants learned how to create logic, sequences, and instructions for robots.

Scratch coding sessions also highlighted the fusion of art and technology, as participants leveraged their creativity to design interactive animations and games. This integration of artistic expression with coding underscored the interdisciplinary nature of the camp's STEAM approach.

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3.3.   Team Projects

An integral part of the camp's curriculum was the team projects segment. This aspect actively promoted collaboration, communication, and problem-solving skills among participants. Aligned with the camp's overarching theme of "Clean Tech for Clean Water," participants were tasked with designing and developing their own robotic projects that addressed real-world water and sanitation challenges.

The team project component encapsulated the essence of teamwork and adaptability. Participants had to brainstorm, plan, and execute their ideas while considering technical, practical, and ethical dimensions. By working in teams, participants learned to harness the diverse skills and perspectives of their peers, fostering an appreciation for collective problem-solving and the power of collaboration.

3.4.   Guest Lectures

An enriching dimension of the camp's curriculum was the inclusion of guest lectures by eminent personalities from the fields of robotics, technology, and clean water initiatives. These lectures brought real-world relevance to the concepts learned during the camp, offering participants insights into the practical applications and potential career pathways within these domains.

The guest lectures broadened participants' horizons by exposing them to cutting-edge advancements, challenges, and success stories. By interacting with accomplished professionals, participants were

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inspired to think beyond the camp's confines and consider the broader impact of their skills and knowledge.

3.5. Social Media Challenge

Innovatively integrated into the curriculum was a social media challenge. This challenge encouraged participants to extend their learning beyond the workshop hours by engaging with social media platforms. Participants were encouraged to share their daily experiences, insights, and project progress on platforms such as Instagram and Twitter, using designated hashtags to foster a sense of community.

The social media challenge aimed to enhance participants' communication skills while showcasing their journey to a wider audience. It also highlighted the contemporary relevance of technology in communication and community engagement. By participating, participants practiced articulating their thoughts, reflecting on their experiences, and connecting with like-minded individuals beyond the physical boundaries of the camp.

4. III. Participant Statistics

4.1. Original Projected Participants

The RoboMindset Summer Camp began with ambitious expectations, aiming to accommodate an initial projection of 110 participants. This estimate was based on pre-registration numbers and reflected the organizers' anticipation of interest within the target age group. The initial projection formed the basis for planning resources, staffing, and logistical arrangements for the camp. As the camp's framework was designed around engaging and nurturing a specific number of participants, this projection served as a critical foundation for its organization.

4.2. Actual Number of Participants

The outcome surpassed all expectations as the camp registered an overwhelming response, with over 150 participants enrolling for the program. This impressive surge in participation demonstrated the robust appeal of the camp's content, curriculum, and overarching goals. The actual attendance was reflective of the camp's resonating value proposition among the youth of the Federation of St. Kitts and Nevis. It underscored the demand for quality STEAM-based educational experiences that merge cutting-edge technology with real-world problem-solving.

The higher-than-anticipated number of participants posed both challenges and opportunities for the camp's organizers. While logistical adjustments had to be made to accommodate the larger cohort, it also signified the potential for even greater impact. The increased attendance reflected the success of the camp in captivating the interest of youth and fostering an enthusiasm for robotics and technology.

PIE CHART SHOWING FEMALE AND MALE PARTICIPANTS

Female 34%

Male 66%
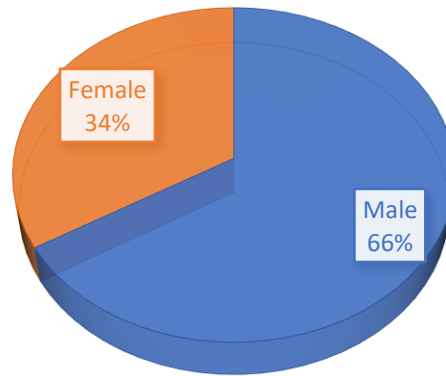
Figure 1 Showing the percentage of Male and Female at the RoboMindset Camp 2023

4.3.   Participant Diversity

A particularly encouraging aspect of the camp's enrollment was the rich tapestry of diversity among participants. Hailing from various backgrounds, representing different schools, regions, and communities across the Federation of St. Kitts and Nevis, the participants collectively brought a myriad of perspectives and experiences to the camp. This diversity contributed to a dynamic and inclusive learning environment, fostering cross-cultural understanding and collaboration.

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The camp's reach across different schools and communities highlighted its efficacy in engaging a wide cross-section of the youth population. The participant diversity not only spoke to the relevance of the camp's content but also to its success in creating an accessible and equitable learning platform. By drawing participants from various walks of life, the camp achieved one of its inherent goals: to unite youths in a shared journey of exploration and skill development.
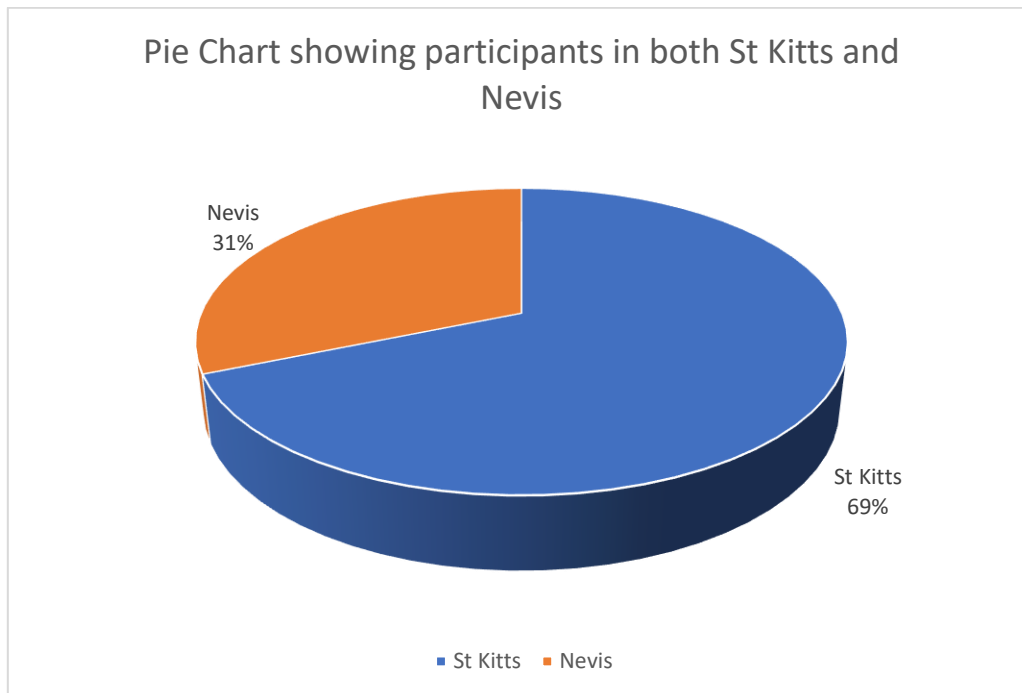

Figure 2 Showing percentage of participants in Nevis and St Kitts

The RoboMindset Summer Camp 2023 truly embraced diversity, attracting participants from a wide spectrum of educational institutions. The camp's impact extended beyond the boundaries of individual schools, bringing together young minds from over 20 institutions across the Federation of St. Kitts and Nevis. This diversity in participant origin enriched the learning environment, fostering cross-pollination of ideas and perspectives from various educational backgrounds.

The camp's ability to attract participants from such a varied array of institutions underscored its universal appeal. Participants represented a mosaic of schools, reflecting a blend of educational philosophies, teaching methodologies, and cultural nuances. This diversity promoted an inclusive atmosphere, where participants could engage in dialogue, share experiences, and collaboratively address the challenges posed by the camp's thematic focus on clean water technology.

Furthermore, the convergence of participants from different institutions facilitated the formation of connections and friendships that transcended the camp's duration. These connections not only strengthened the camp's sense of community but also offered participants the opportunity to learn

from one another, exchange insights, and broaden their horizons through exposure to diverse perspectives.

The participant diversity aspect further reinforced the camp's role as a unifying force, creating a shared platform where young learners from various corners of the Federation could unite in their pursuit of knowledge, innovation, and societal impact. This diverse representation not only enriched the learning experience but also underscored the camp's potential to drive positive change on a broader societal level.
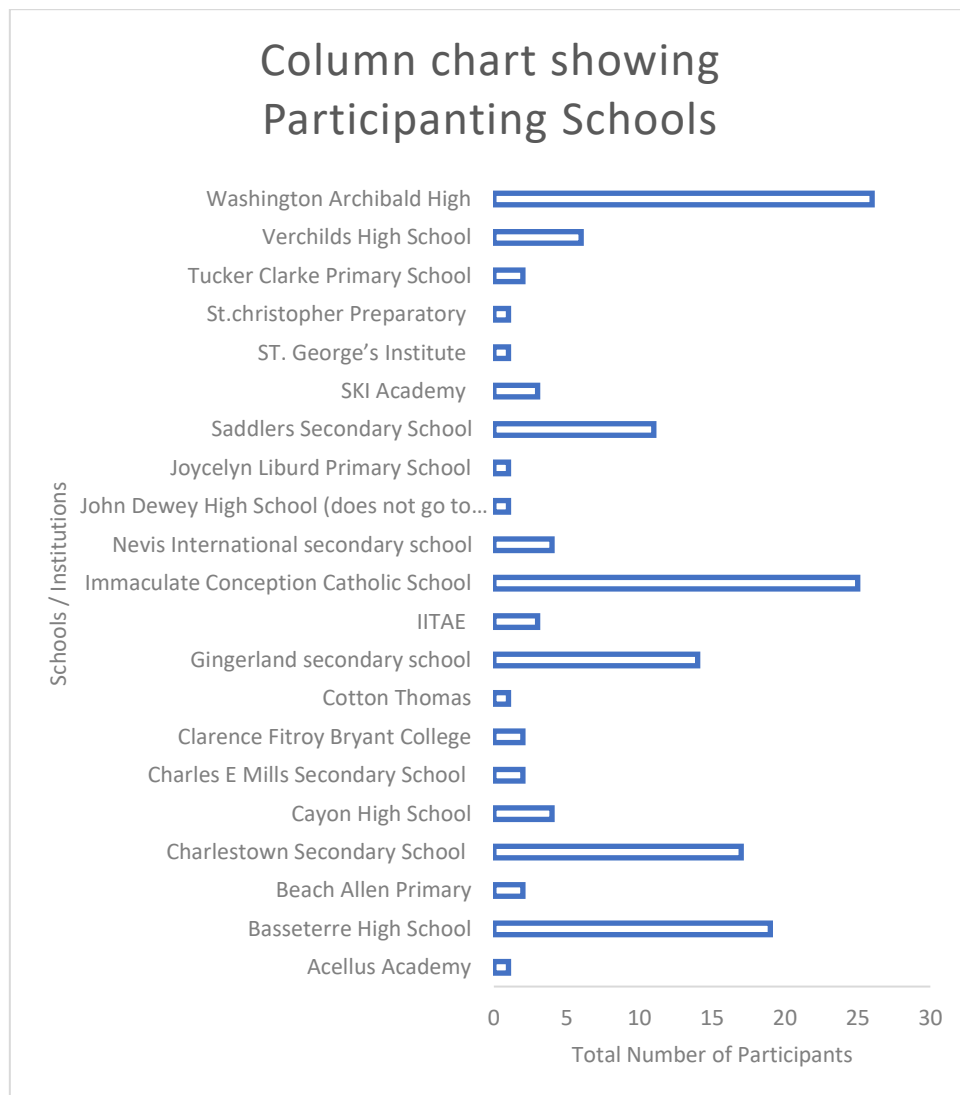

Figure 3 showing schools that have participated in the summer camp

5. IV. Outcomes and Achievements

5.1.   Increased Interest in STEAM

The RoboMindset Summer Camp proved to be a catalyst for fostering a renewed and heightened interest in STEAM subjects among the participants. Particularly evident was the camp's success in cultivating passion within the fields of robotics, programming, and technology. Through engaging workshops, hands-on experiences, and exposure to real-world applications of these disciplines, participants' enthusiasm was sparked. They developed a keen understanding of how STEAM subjects can be harnessed to address complex global challenges, such as ensuring clean water access through innovative technology.

The camp's immersive and interactive approach transcended traditional classroom learning, enabling participants to not only grasp theoretical concepts but also experience the tangible impact of their learning. As a result, the camp achieved its objective of igniting a genuine curiosity and desire to further explore and excel in STEAM disciplines, encouraging many participants to consider potential future careers in related fields.

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5.2.   Skill Development

A significant outcome of the camp was the participants' substantial growth in technical skills. Through rigorous workshops, practical sessions, and coding activities, participants honed their abilities in programming using both Java and Scratch languages. Hands-on robotics experience allowed them to comprehend the intricate mechanisms and principles underlying robots, enhancing their problem-solving skills.

The acquisition of these technical skills was not limited to their immediate application during the camp but extended to participants' broader skill sets. The increased familiarity with programming languages and robotics equipped them with valuable assets for potential future educational pursuits and professional aspirations. Participants left the camp not only with theoretical knowledge but also with practical skills that are becoming increasingly relevant in today's technology-driven world.

5.3.   Confidence and Presentation

The camp's emphasis on collaborative projects had a remarkable impact on participants' confidence and presentation skills. By actively participating in team projects, participants were required to articulate their ideas, opinions, and project progress to peers and mentors. This experience significantly bolstered their ability to communicate effectively, think on their feet, and succinctly convey complex concepts.

Through these presentations, participants were encouraged to showcase their achievements and contributions, fostering a sense of accomplishment and pride in their work. This newfound confidence extended beyond the camp's duration, potentially benefiting them in academic settings, future career endeavors, and everyday life.

5.4.   Team Building and Collaboration

A defining feature of the camp was its emphasis on teamwork and collaboration. Participants worked closely in teams to design, develop, and present their robotic projects. This collaborative approach exposed participants to diverse perspectives, teaching them the art of compromise, effective communication, and synergy. The challenges posed by real-world problems encouraged participants to pool their strengths, resulting in innovative solutions.

This experiential learning not only enhanced participants' ability to work collaboratively but also underscored the importance of collective problem-solving in addressing complex challenges. The lessons learned about teamwork during the camp are likely to have a lasting impact on participants' future interactions, both in educational settings and in their future careers.

5.5.   Innovation and Creativity

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The camp succeeded in nurturing participants' innovation and creativity through its thematic focus on clean water technology. Participants were tasked with conceiving and designing robotic projects that tackled water-related challenges. This emphasis on real-world problem-solving encouraged them to think outside the box, exploring unconventional approaches and novel solutions.

The projects developed during the camp were a testament to the participants' ingenuity, as they devised creative ways to address water-related issues using robotics and technology. This experience not only developed their ability to innovate within a structured framework but also highlighted the potential for technology to bring about positive change in society.

6. Most Outstanding Awardees

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6.1. "SKNRA RoboMindset Summer Camp 2023: Celebrating Excellence in Robotics and STEAM Education"

Award Ranking	Award Name	Award Type	Description	Name of Awardee in St. Kitts	Name of Awardee in Nevis
	SKNRA RoboMindset Summer Camp 2023 **Participation Excellence Medals**	Medals	The "Participation Excellence Medals" represent the camp's recognition of each camper's dedication and enthusiasm in contributing to the camp's success. These medals serve as a token of appreciation for their efforts and encourage them to continue exploring and engaging in the exciting world of robotics and STEAM education.	Awarded to **All Campers** (call all names)	Awarded to **All Campers** (call all names)
	Outstanding Group Leader Award	Certificate	The "Outstanding Group Leader Award" is presented to the group leader who demonstrated exceptional leadership, teamwork, and commitment in guiding their team to success. Their unwavering dedication and positive influence have had a significant impact on their team members, fostering a collaborative and inspiring environment. This award celebrates their outstanding leadership and passion for robotics and STEAM education.	• Group 2 - **GLENYA LEADER**, • Group 3 - **NYLA MANNING**, • Group 5 - **HANNAH MARIE WILLIAMS**	• Group 1 - **MAYUR DASWANI**, • Group 2 - **AJERNEE HODGE**
1st	SKNRA RoboMindset Summer Camp 2023 **RoboMaster Excellence Award**	Trophies	This award is given to the participant who has demonstrated exceptional performance and excellence across all aspects of the RoboMindset Summer Camp, showcasing a high level of skill, knowledge, and dedication. The name "RoboMaster Excellence Award" reflects the camp's focus on robotics and mastery of skills, while emphasizing the recognition of overall excellence.	Awarded to **HANNAH MARIE WILLIAMS** from Group 5 with support of the group	Awarded to **JAIDEN CLARKE** from Group 2 with support of the group
2nd	SKNRA RoboMindset Summer Camp 2023 **STEAM Female Superstar Award**	Trophies	This award recognizes the outstanding achievements and contributions of female participants in the fields of Science, Technology, Engineering, Arts and Mathematics (STEAM). The "STEAM Superstar Award" highlights the exceptional talents, creativity, and dedication displayed by female individuals during the RoboMindset Summer Camp, encouraging and empowering more young women to excel in STEAM-related activities.	Awarded to **LEAH JEREMIAH** from Group 3 with support of the group	Awarded to **NAILAH TAYLOR** from Group 3 with support of the group
2nd	SKNRA RoboMindset Summer Camp 2023 **STEAM Male Superstar Award**	Trophies	This award recognizes the outstanding achievements and contributions of male participants in the fields of Science, Technology, Engineering, Arts and Mathematics (STEAM).	Awarded to **ASXAVIER RICHARDS** from Group 2 with support of the group	Awarded to **MAYUR DASWANI** from Group 1 with support of the group

			The "STEAM Superstar Award" highlights the exceptional talents, creativity, and dedication displayed by female individuals during the RoboMindset Summer Camp, encouraging and empowering more young men to excel in STEAM-related activities.		
3rd	SKNRA RoboMindset Summer Camp 2023 **CodeCraft Excellence Award**	Trophies	The "CodeCraft Excellence Award" recognizes participants who have demonstrated exceptional programming skills and craftsmanship during the RoboMindset Summer Camp. This prestigious award celebrates individuals who have displayed an exemplary understanding of coding principles and a mastery of crafting efficient, elegant, and effective code.	Awarded to **JAYDEN WARNER** from Group 2 with support of the group	Awarded to **Rucha Sharma** from Group 2 with support of the group
4th	SKNRA RoboMindset Summer Camp 2023 **Innovation Showcase Award**	Trophies	This award acknowledges participants who have delivered the most impressive and innovative demonstrations during the RoboMindset Summer Camp. The "Innovation Showcase Award" highlights their ability to showcase cutting-edge ideas, technical skills, and creative problem-solving through captivating demonstrations. This recognition encourages participants to think outside the box and push the boundaries of technology and robotics.	Awarded to **OBRIAN STOUTE** Group 2 with support of the group	Awarded to **VICKASH SINGH** from Group 2 with support of the group
5h	SKNRA RoboMindset Summer Camp 2023 **Design Maverick Award**	Trophies	This award recognizes participants who have demonstrated exceptional creativity, originality, and ingenuity in their designs during the RoboMindset Summer Camp. The "Design Maverick Award" celebrates individuals who have dared to think differently and have shown a pioneering spirit in developing unique and forward-thinking designs. This recognition encourages participants to embrace innovation and push the envelope in the field of robotics and engineering.	Awarded to **RAINIER MARTIN** Group 3 with support of the group	Awarded to **VICKASH SINGH** from Group 2 with support of the group
7th	SKNRA RoboMindset Summer Camp 2023 **Engineering Excellence Journal Award**	Trophies	This award recognizes participants who have maintained exceptional engineering notebooks throughout the RoboMindset Summer Camp. The "Engineering Excellence Journal Award" acknowledges the meticulous record-keeping, detailed documentation, and thoroughness exhibited in their engineering journals.	Awarded to **AMANI EDMEADE** Group 3 with support of the group	Awarded to Tayshia Stanley Group 3 with support of the group

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			It emphasizes the importance of keeping a comprehensive and organized record of the design process, ideas, experiments, and observations. This recognition encourages participants to value the role of proper documentation in the field of robotics and engineering, as it contributes to continuous learning and improvement.		
8th	SKNRA RoboMindset Summer Camp 2023 **Social Media Maverick Award**	Trophies	This award celebrates participants who have excelled in the social media challenges during the RoboMindset Summer Camp. The "Social Media Maverick Award" recognizes individuals who have demonstrated creativity, engagement, and effective communication in promoting the camp's activities, projects, and achievements through various social media platforms. This recognition encourages participants to leverage social media as a powerful tool for showcasing their passion for robotics and engineering, while also inspiring others to get involved in similar STEM-related endeavors.	Awarded to **RONIA FRANCIS** Group 3 with support of the group	Awarded to **SHAQUAN ALEXANDER**

7. V. Feedback and Testimonials

7.1. Participant Feedback

The incorporation of participant feedback through feedback forms provided a valuable avenue for gauging the camp's impact and effectiveness. These forms were designed to capture participants' perspectives, insights, and suggestions, enabling organizers to assess the strengths of the camp and areas for potential improvement. The feedback mechanism allowed participants to have an active voice in shaping the camp's future iterations.

The consensus among participants was overwhelmingly positive. A significant majority expressed high levels of satisfaction and enthusiasm for the camp's content, structure, and focus on clean water technology. Participants highlighted the immersive hands-on experience, the engaging robotics workshops, and the opportunity to collaborate on meaningful projects. The intersection of technology and social impact resonated deeply with participants, many of whom left the camp with a newfound appreciation for the potential of robotics to effect positive change in the world.

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Furthermore, participants' feedback provided insight into the elements that resonated most with them, shedding light on the aspects that contributed to their personal growth, skill development, and inspiration. The feedback validated the organizers' efforts and affirmed the camp's ability to stimulate curiosity, foster innovation, and nurture a sense of purpose among the youth.
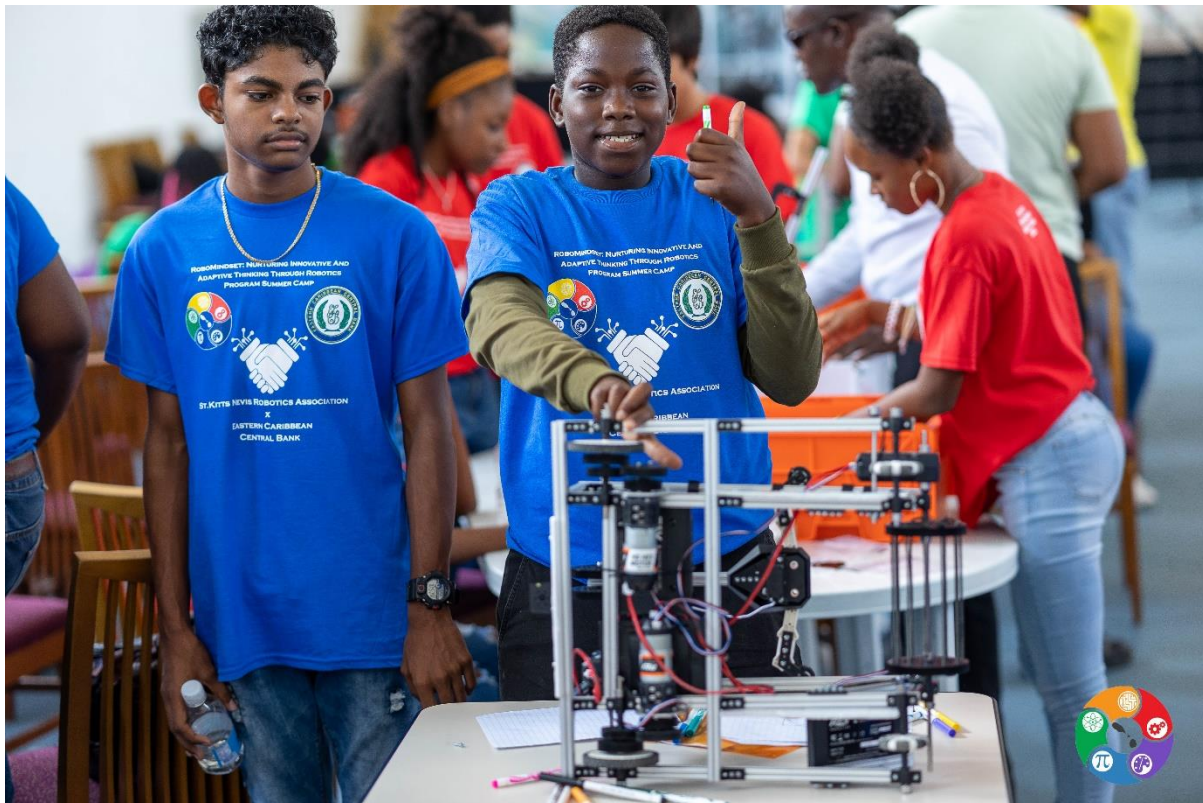
7.2.   Parent Testimonials

The impact of the RoboMindset Summer Camp extended beyond the participants themselves, resonating with parents who witnessed the transformative effect of the program on their children. Parent testimonials revealed a deep sense of appreciation for the camp's role in nurturing academic interests, fostering personal growth, and enhancing understanding of water-related issues.

Parents spoke of their children's increased confidence, improved communication skills, and enhanced problem-solving abilities. Many shared anecdotes of how their children had eagerly shared newfound knowledge about robotics, coding, and technology at home, demonstrating the camp's success in igniting passion beyond its immediate duration. Parent testimonials also underscored the camp's influence in promoting a holistic development that encompassed technical skills, teamwork, and social awareness.

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The convergence of participant feedback and parent testimonials painted a vivid picture of the camp's impact from both sides of the learning experience. The alignment of positive responses affirmed that the camp's objectives had been met and exceeded, and that it had effectively sown the seeds of lifelong learning, innovation, and community engagement.

In conclusion, the RoboMindset Summer Camp received resounding affirmation through participant feedback and parent testimonials. The participants' high satisfaction, enthusiasm, and recognition of the camp's focus on clean water technology highlighted its ability to inspire and engage the youth. The parents' testimonials provided tangible evidence of the camp's transformative influence on academic pursuits, personal growth, and societal awareness. This collective feedback showcased the camp's profound resonance and underscored its significance in shaping the intellectual and ethical trajectories of the participants.

8. Financial Report: RoboMindset Summer Camp 2023

The RoboMindset Summer Camp 2023 was a collaborative initiative between the SKNRA (St. Kitts and Nevis Robotics Association) and ECCB (Eastern Caribbean Central Bank), each contributing funding and resources to create a transformative learning experience for the participants. The total budget for the

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program was estimated at $50,000 EC (Eastern Caribbean Dollars), carefully allocated to cover various essential components of the camp, including equipment, supplies, facilities, transportation, accommodation, and staffing. The program budget breakdown is detailed below:

Table 8.1: Program Budget Breakdown

Item	Description	Cost per Unit - EC	Quantity	Total Cost
Robotics Kits - REV Robotics	High-quality robotics kits for each team to use during the program	$3,500.00	7	$24,500.00
Venue Rental	Cost to rent suitable locations for the two-week program	-	-	$0.00
Equipment Rental (AV, Microphones)	Cost to rent audio-visual equipment and microphones for presentations	-	-	$0.00
Supplies (Pens, Paper, Markers)	General office supplies for program use	-	-	$0.00
Stipend for Mentors	Stipend for mentors and judges: 3 mentors and 1 judge ($150 per day)	$2,100.00	4	$8,400.00
Transportation (School Buses)	Cost of transportation for students, mentors, and teachers during the program	$30.00	40	$1,200.00
Insurance Coverage	Cost of insurance coverage for the program	$121.00	1	$121.00
Marketing and Advertising	Cost to advertise and promote the program to potential participants	$0.00	0	$0.00
Training Material 1	EDU Kit V2 Build Guide	$599.00	6	$3,594.00
Training Material 2	Control Hub User's Manual	$599.00	6	$3,594.00
	Getting Started with the Control Hub	$599.00	6	$3,594.00
	Hello Robot: Introduction to Programming	$599.00	6	$3,594.00
Miscellaneous Expenses	Unforeseen expenses that may arise during the program	$1,000.00	1	$1,000.00
Total (Before Transportation Change)				**$42,603.00**
Transportation (Increased Cost)	Cost of transportation increased for students, mentors, and teachers	$0.00	40	**$6,000.00**
Total (After Transportation Change)				**$48,603.00**

Note: All figures are presented in Eastern Caribbean Dollars (EC).

Transportation Note: The only change in the budget was an increase in the cost of transportation to approximately $6,000 EC due to unforeseen logistical factors. This adjustment was necessary to ensure

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smooth and efficient transportation for participants, mentors, and teachers throughout the program. As a result, the revised total budget for the RoboMindset Summer Camp 2023 is $48,603.00 EC.

Additional Sponsorship Note: The Ministry of Finance extended sponsorship in the form of $20,000 EC for trophies and shirts, contributing significantly to the program's success.

9. VI. Recommendations for Future Camps

9.1. Diversify Age Groups

The RoboMindset Summer Camp's success in attracting a large number of participants indicated a strong demand for STEAM-focused learning experiences. To capitalize on this momentum and cater to an even broader audience, the introduction of different age group sections within the camp is a strategic consideration. This approach recognizes the varying levels of exposure, expertise, and learning styles among participants of different age brackets.

Introducing age-specific sections would allow for tailored learning experiences that align with the cognitive abilities and interests of participants. Younger participants may benefit from more foundational robotics concepts, while older participants could delve deeper into advanced programming and technological applications. This targeted approach would not only optimize the learning experience but also foster a sense of camaraderie and peer support within each age group.

9.2. Coding in the Second Week

To further optimize the learning trajectory, the incorporation of coding sessions in the second week of the camp could be advantageous. Beginning with a solid foundation in robotics concepts and hands-on activities in the first week lays the groundwork for participants to seamlessly transition into coding. By the second week, participants would have gained a better understanding of the fundamental mechanics of robots, enabling them to grasp the significance of coding in controlling these machines effectively.

Starting coding in the second week capitalizes on the participants' growing familiarity with robotics and positions coding as a natural progression. This structured approach enhances the participants' learning curve, enabling them to harness their newly acquired technical skills more effectively.

9.3. Increase Budget

The unprecedented response to the camp's inaugural edition highlights the potential for an even larger impact. Increasing the budget to accommodate a larger number of participants is a strategic move that aligns with the camp's mission of inspiring and educating youth in robotics and technology. A larger budget would enable the inclusion of more resources, guest speakers, and additional instructors, enhancing the quality and depth of the camp's offerings.

"Inspiring youths with STEAM"

The infusion of a higher budget could lead to expanded opportunities, such as securing experts in robotics and technology as guest speakers. It could also facilitate access to cutting-edge equipment, software, and materials that enrich the hands-on learning experience. Moreover, a larger budget would empower the camp to reach more underserved communities and ensure inclusivity for a broader range of participants.

9.4. Engage Partnerships

Collaborating with local educational institutions, tech companies, and clean water organizations would significantly amplify the camp's impact and scope. Such partnerships would open avenues for accessing specialized knowledge, resources, and expertise that complement the camp's curriculum. Educational institutions could provide access to research labs and subject matter experts, while tech companies might offer technology demonstrations and industry insights.

Clean water organizations could contribute by enriching the camp's curriculum with in-depth understanding of water-related challenges and potential solutions. These partnerships extend the camp's impact beyond the immediate learning experience, creating a lasting connection between participants and professionals in the field.

9.5. Expand Themes

While the "Clean Tech for Clean Water" theme was impactful, future camps could expand their thematic horizons to explore a variety of themes related to robotics and STEAM. This dynamic approach keeps the content fresh, appeals to a wider range of interests, and encourages repeat participation. Themes such as environmental sustainability, healthcare robotics, space exploration, and more could provide diverse avenues for innovation and learning.

Expanding themes also allows the camp to stay attuned to emerging trends and evolving societal challenges. It encourages participants to think creatively and adapt their skills to a variety of contexts, enhancing their versatility and problem-solving abilities.

10. VII. Conclusion

The RoboMindset Summer Camp 2023 stands as a testament to the power of immersive education in shaping the minds and aspirations of young learners. Centered around the theme "Clean Tech for Clean Water," the camp transcended mere theoretical learning, merging robotics education with a vital global issue. The outcomes achieved over its four-week duration were not just encouraging; they were transformative.

The camp's resounding success was illuminated by its remarkable response - an enrollment of over 150 participants, far surpassing the initial projection of 110. This numerical triumph was an indicator

of the camp's resonance among the youth, their eagerness to engage with STEAM subjects, and their desire to be part of a learning journey that carried tangible societal implications.

The fusion of robotics education and the pressing matter of clean water access underscored the camp's commitment to fostering holistic growth. By engaging participants from all schools in the Federation of St. Kitts and Nevis, the camp created an inclusive space for diverse minds to converge, collaborate, and create. Through hands-on learning experiences, participants honed their technical skills, familiarizing themselves with programming languages, robotics mechanics, and real-world problem-solving techniques.

Beyond the acquisition of skills, the camp nurtured participants' self-assurance, a trait palpably evident in their team projects and presentations. The collaborative atmosphere of the camp not only facilitated teamwork and cooperation but also instilled the confidence to articulate ideas effectively. As participants showcased their projects, they showcased not only their technical prowess but also their newfound ability to communicate complex concepts.

The resonance of the camp was further affirmed by the positive feedback received from both participants and parents. Participants expressed enthusiasm for the camp's thematic focus and its hands-on approach. Parents attested to the transformation they witnessed in their children, in terms of academic curiosity, personal growth, and an enhanced understanding of real-world issues. This endorsement from participants and parents serves as a testament to the camp's meaningful impact on the intellectual and personal development of its participants.

Looking forward, the camp's recommendations hold the promise of making future iterations even more impactful. The prospect of introducing different age group sections acknowledges the diversity in learning needs, while an increased budget speaks to the aspiration of broader accessibility and enriched resources. Collaborations with local institutions and the expansion of thematic exploration promise to keep the camp's content dynamic and aligned with evolving STEAM trends.

In essence, the RoboMindset Summer Camp 2023 demonstrated the profound potential of a holistic educational approach. Beyond the realm of classroom learning, the camp ignited passion, nurtured innovation, and cultivated a mindset that values both knowledge and its real-world applications. With each successful camp, the legacy of RoboMindset deepens, fueling the transformation of the next generation into leaders, innovators, and problem solvers, poised to address the pressing challenges of our world.