STEM INNOVATION SCHOOLS LABS

A Passion for Faith, Reason, and Science!

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ABOUT AI LABS FOR STEM INNOVATION SCHOOLS

1.0 INTRODUCTION:

At STEM INNOVATION SCHOOLS, we are dedicated to nurturing the minds, hearts, and spirits of our students through the harmonious integration of faith and science. We believe that an unwavering commitment to Christ can coexist with a profound passion for STEM (Science, Technology, Engineering, and Mathematics). Our mission is to empower students in Grades 1-12 with a rigorous and holistic scientific education that equips them to excel academically, serve their communities, and live out their faith. Specifically we will focus on Artificial Intelligence, Robotics, Drone Science, Machine Learning and Data Analytics because we believe these technologies will be of utmost importance in the future.

2.0 Philosophy

The AI LAB is designed to enable students to rotate between the AI Stations, exposing them to multiple disciplines and various scenarios where artificial intelligence takes control of our lives. It is designed to provide a rich experience to ensure students are ready to become Technology Leaders, Inventors, Creators and Innovators of the 21st and for generation to come.

It includes all instructional materials, apparatus, software, and equipment necessary to accommodate a class size of your choice. It is a complete system of integrated materials, furnishings, and curricula that provides a platform for investigating AI / STEM principles and practices through an integrated series of real-life context-based technological learning experiences using robots.

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TYPES OF LABS

LAB TYPES

There are three Lab Levels namely
AI Lab for Grades Pre-K- Grade 4
AI Labs for Grades 5-8
AI Lab for Grades 9-12

3.0 OUR COMMITMENT

Welcome to a world of wonder, innovation and faith, where in this AI LAB, the youngest minds from Pre-K to Grade 4 embark on an extraordinary journey through a myriad of appropriate technologies; where the realms of AI, Robotics, Drone Science, Machine Learning, and Data Analytics are unlocked for the future generation of pioneers and visionaries. Here, in the early stages of their educational voyage, these young explorers will learn to dream beyond boundaries, unravel the mysteries of technology, and chart the course towards a future where creativity, innovation, invention, tech leadership and entrepreneurship will be unleashed. The discoveries and innovations will be as limitless as as the horizons of their imagination.

FEATURES OF THE AI LAB

1. Interactive and Imaginative Space:
The lab is designed to spark the imagination of young students. bright, friendly colors and decorations to create an inviting atmosphere.
Wall decals, posters, and artwork related to AI, robotics, data science, and machine learning should be displayed.

2. Flexible Learning Zones:
Create different zones within the lab, each dedicated to artificial intelligence, robotics, coding, data analytics, and machine learning.

FEATURES OF THE AI LAB

3. Age-Appropriate Furniture:
The tables and chairs are sized for young children, with comfortable seating for collaborative learning and group activities.

4. Robotics and Coding Area:
Simple programmable robots like Bee-Bots or Dash and Dot to introduce the basics of robotics and coding are provided. Low-code or no-code programming tools can be used to teach coding concepts.

FEATURES OF THE AI LAB

5. Data Science and Analytics Corner:

Set up a data science area with age-appropriate tools like interactive data visualization software.

Child-friendly data sets to introduce concepts of data analysis and interpretation.

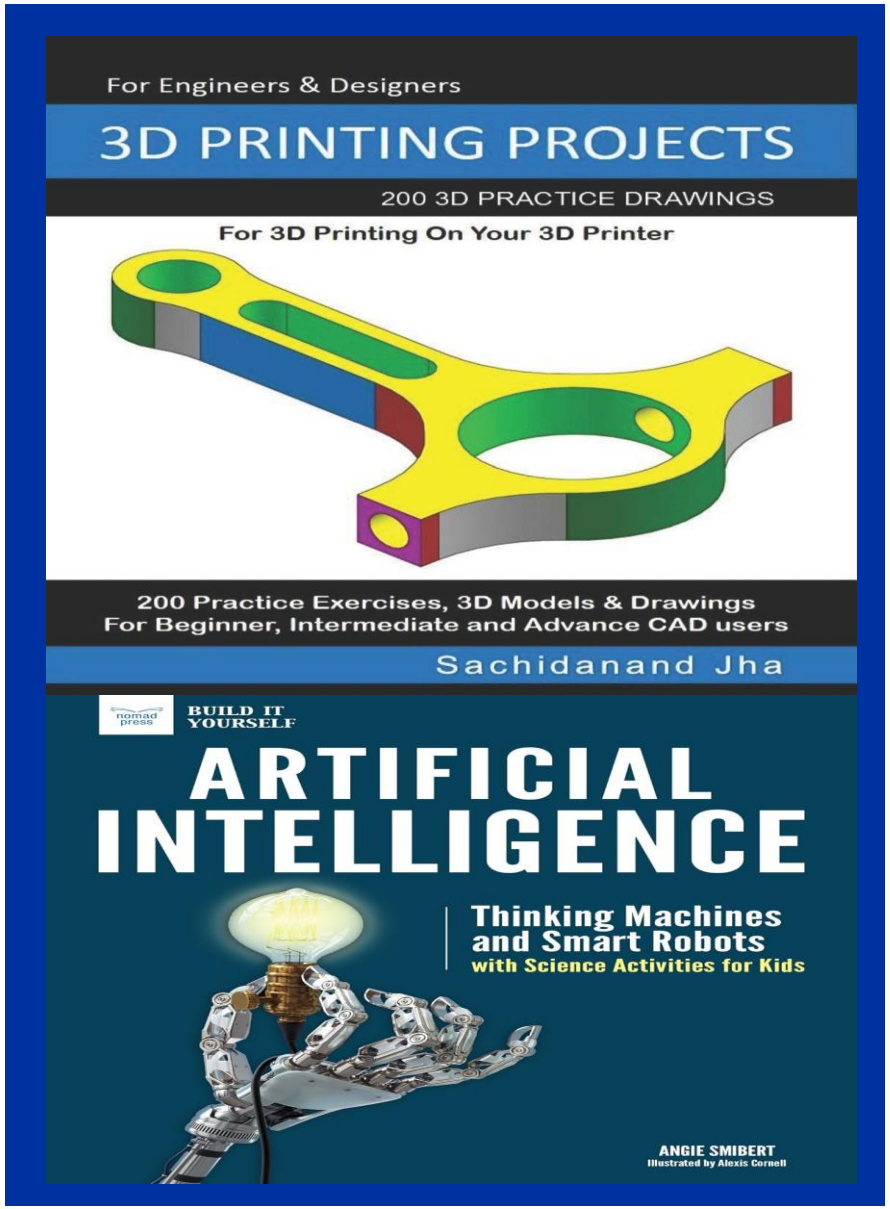
6. AI and Machine Learning Station:

Introduce simple AI concepts through interactive models and age-appropriate AI programming tools.

Implement storytelling techniques to make AI and machine learning concepts more interesting and accessible.

7. Hands-On Experimentation:

Include a dedicated space for hands-on experiments that are safe and engaging for young students, such as building simple robots and programming them to perform basic tasks.



FEATURES OF THE AI LAB

8. Interactive Displays:

Incorporate interactive whiteboards or large screens to facilitate engaging presentations and demonstrations.
Use child-friendly software or apps to demonstrate AI and robotics concepts.

9. 3D Printing and Maker Space:

Introduce age-appropriate 3D printers and a maker space area where students can design and create simple objects to foster creativity and problem-solving.

10. Reading Nook:

A cozy reading nook filled with STEM-themed books and AI or robotics-related children's literature can encourage literacy and complement STEM learning.

FEATURES OF THE AI LAB

11. Safety Measures:

Implement robust safety measures and guidelines to ensure that all equipment and materials are child-friendly and secure. Ensure that adult supervision is present to ensure students' safety during experiments and activities.

12. Parent and Community Involvement:

Encourage parents to participate in open-house events, workshops, and family STEM activities to support learning in the Lab and at home.

FEATURES OF THE AI LAB

13. Guidance and Support:

Trained educators or lab assistants should be present to guide and inspire students in their STEM endeavors.

Implement a mentorship program where older students or community members can inspire and guide the younger learners.

14. Continuous Improvement:

Regularly update the lab with the latest educational technology and materials to ensure that it remains exciting and relevant for young learners.

AI LAB FOR PRE-K TO GRADE

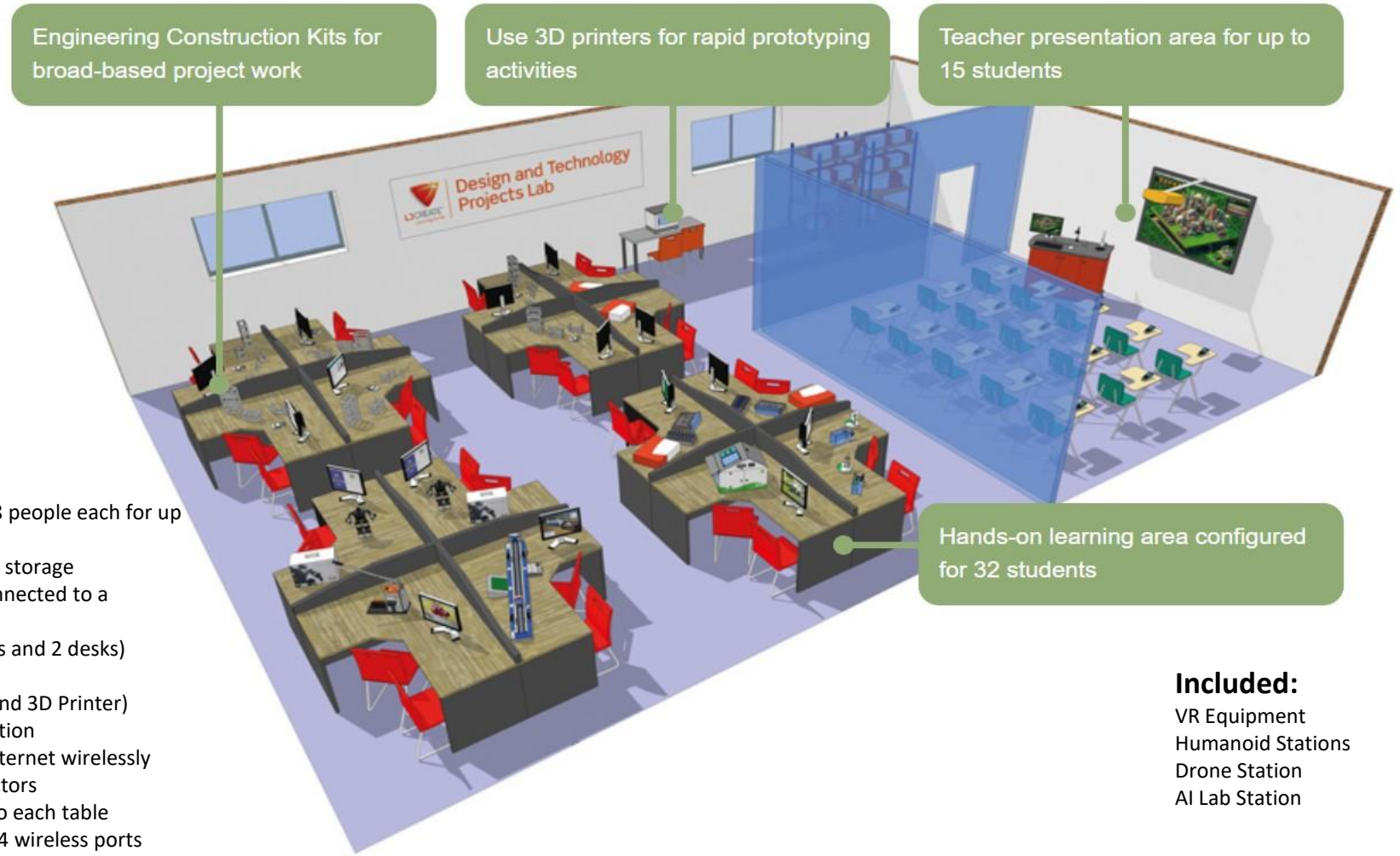
4.0 LAB DESIGN

AI, Robotics, Drone Science, Data Analytics and Machine Learning Lab for Pre-k to Grade 4 Students

Included:

1. 4 Lage Tables Which can seat 8 people each for up to 32 students
2. 3 Cabinets with at least 4 layer storage
3. One 52 inch Display screen connected to a computer and the Internet
4. Two Teacher Stations (2 Chairs and 2 desks)
5. 20 Student Chairs
6. One 3D Printer Station (Desk and 3D Printer)
7. One Ordinary Laser Printer Station
8. 32 Tablets connected to the internet wirelessly
9. 40 Ethernet cables and connectors
10. 32 power Sockets connected to each table
11. 10 Wireless routers each with 4 wireless ports
12. 40 Ozo Robots
13. 40 Drones
14. 40 STEM Building Blocks

AI, Robotics, Drone Science, Data Analytics and Machine Learning Lab for Grades 5-8 Students



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11. 10 Wireless routers each with 4 wireless ports
12. 40 Drones
13. 40 STEM Building Blocks

Included:

VR Equipment
Humanoid Stations
Drone Station
AI Lab Station

AI, Robotics, Drone Science, Data Analytics and Machine Learning Lab for Grades 9-12

Included:

1. 4 Lage Tables Which can seat 8 people each for up to 32 students
2. 3 Cabinets with at least 4 layer storage
3. One 52 inch Display screen connected to a computer and the Internet
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11. 10 Wireless routers each with 4 wireless ports
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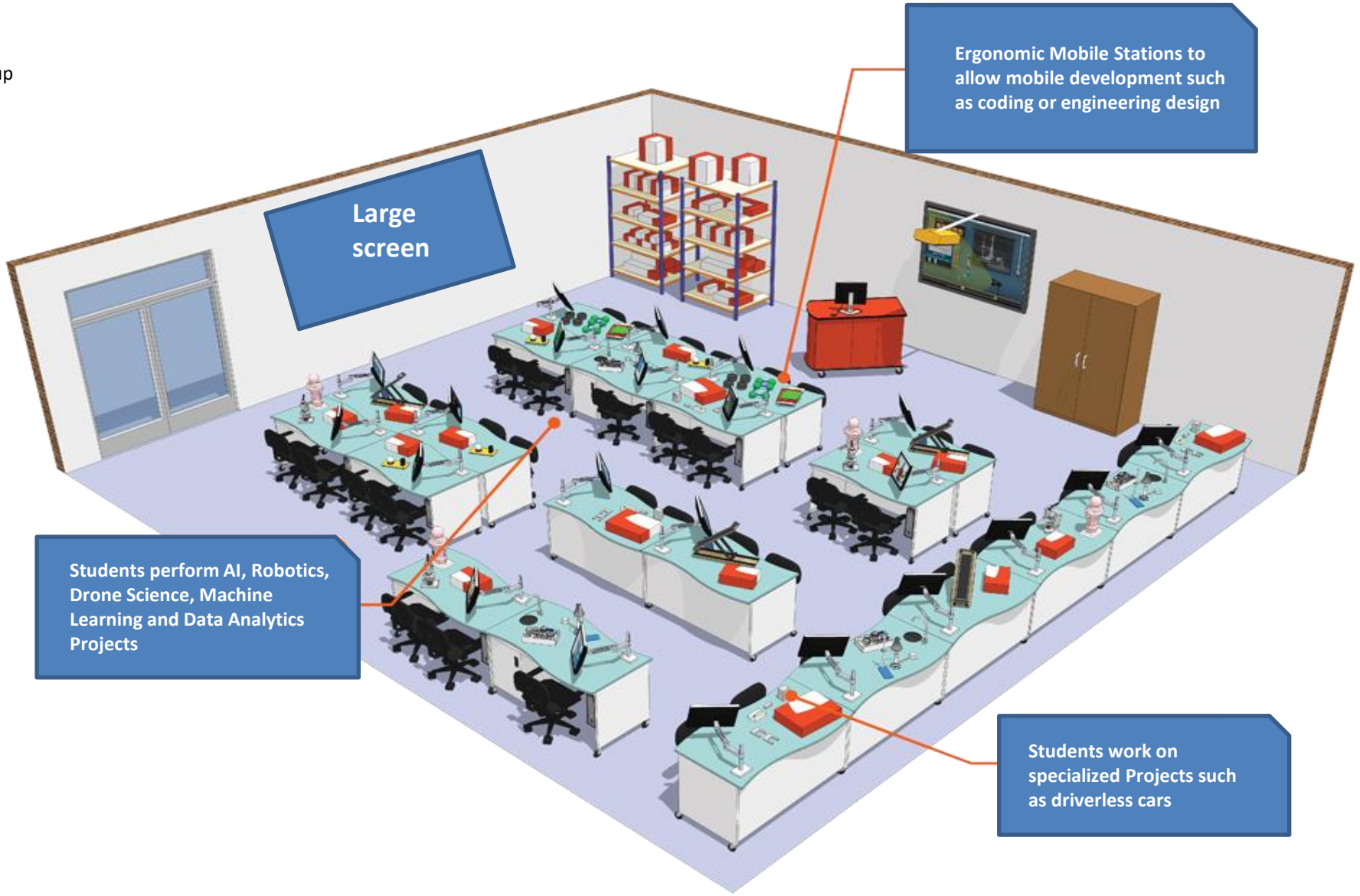
13. 40 Drones
14. 40 STEM Building Blocks

Included:

VR Equipment
Humanoid Stations
Smart Transportation Station
Drone Station
Industry 4 Station
AI Lab Station
Gaming Station
Research Station



Conclusion

In the heart of STEM INNOVBATION schools, we embark on a remarkable journey that integrates faith, knowledge, and innovation. Our curriculum, spanning from grades 1 to 12, seeks to not only equip our students with the cutting-edge skills of AI, robotics, drone science, data science, and machine learning but also to nurture their spirits in the light of Christian values. Together, we kindle the flames of curiosity, wisdom, and compassion, forging a path where science and faith converge. As we prepare our students to navigate the ever-evolving technological landscape, we also instill in them the enduring principles of love, empathy, and purpose. With unwavering faith and a passion for discovery, our graduates will step boldly into the future, bearing both the torch of innovation and the light of God's love to illuminate the world. You can reach us at info@steminnovationschools.com or +256772121432/ 772120071 or visit us at www.steminnovationschools.com