



**Class One  
Systems**

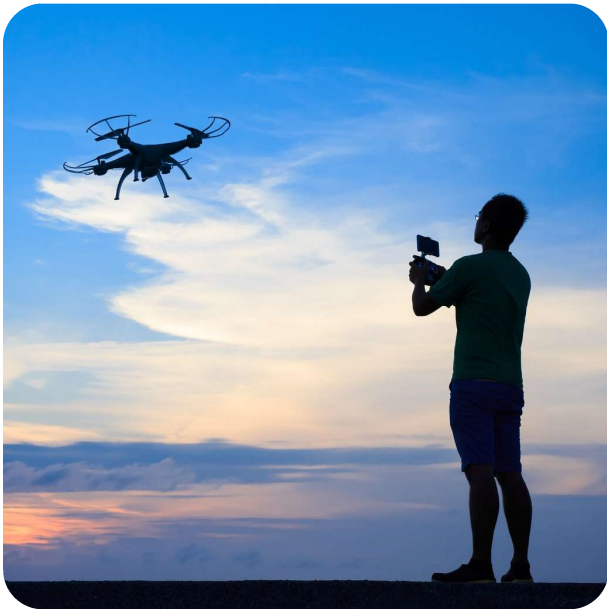
Actionable  
Engineering  
Intelligence



# UAVs PRESENTATION

Education & Careers

# More Than Just Toys



- At first glance, UAVs might seem like nothing more than an overpowered toy.
- However, they can be a powerful tool for education in disciplines like technology, science, math, and even social studies.
- Across the world, schools are beginning to integrate UAVs into their curriculums, and they're seeing high returns on investment.



# A study was done which found the following

The study was entitled "A systematic review of Drone integrated STEM education at secondary schools (2005–2023): Trends, pedagogies, and learning outcomes"

(<https://www.sciencedirect.com/science/article/abs/pii/S0360131524000137>)

## Increasing Research

# Integration in Schools



- Global trends indicate UAV education is critical across academic levels.
- UAV education has found broad adoption across various disciplines
- UAV education enhances student learning and prepares them for future careers
- UAVs can serve as an effective medium for cross-disciplinary learning opportunities.

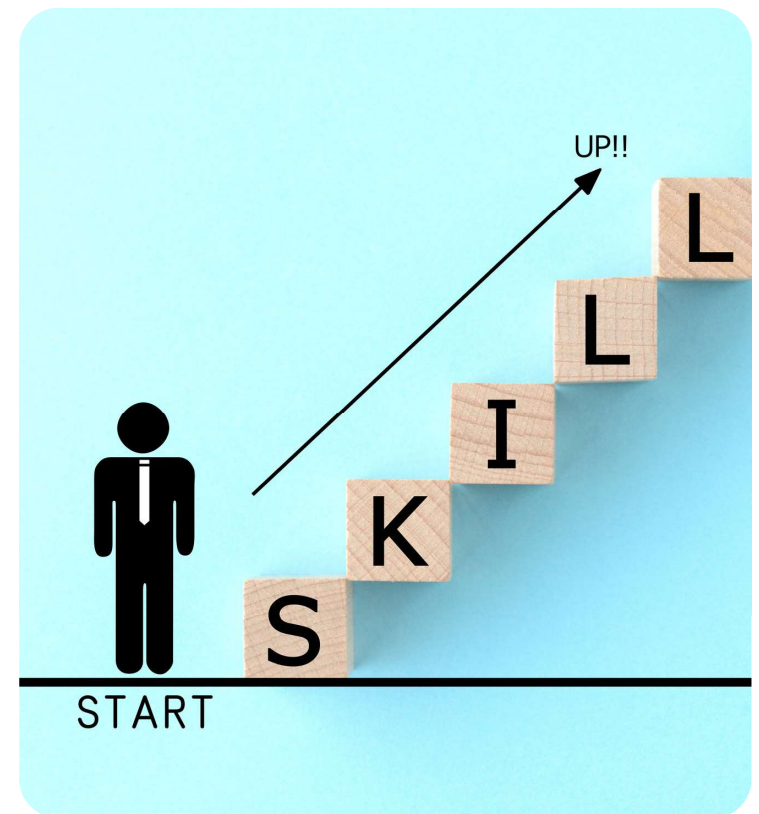
# Education & Career Value

- UAVs are now considered a part of STEM education for all levels.
- **UAVs can be used for knowledge acquisition.** – Students can learn about aerodynamics, aviation, programming and data analysis.
- **Problem Solving** – UAVs serve as a tangible tool that encourages exploration and problem-solving.
- **Developing a wide range of skills** – Have been proven in the development of essential skills such as imagination, creativity, project management, and technology proficiency.
- **Critical thinking** – collaboration, learning adaptation to challenges skill

# Other Value in Education

- Developing motor skills and hand-eye coordination
- Teaching Coding
- Teaching Physics
- Building intellectual and creative skills
- Hands-on Learning Experiences

**Altogether are vital skills for your future careers.**





UAVs are a great hands-on,  
practical approach to teaching  
and learning STEM.



*UAVs are a versatile tool for introducing youth to STEM and can be integrated across various disciplines*

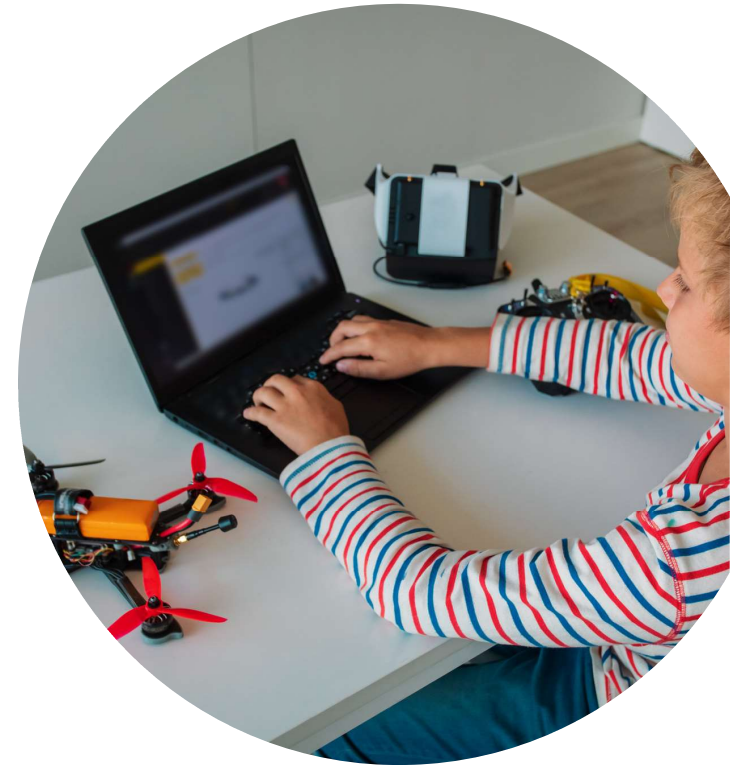
SCIENCE  
TECHNOLOGY  
ENGINEERING  
MATHEMATICS



# STEM Education

# STEM Education

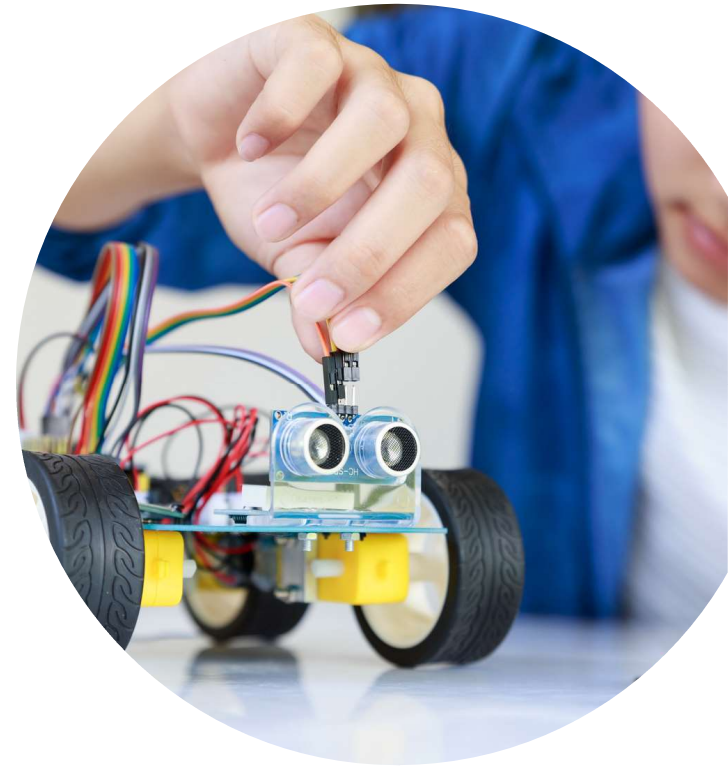
- **Science** — Using imagery or video data to make analyses, models in areas such as environmental conservation, precision agriculture, in fields such as Geospatial Information Systems (GIS), Environmental Science and Geography.
- **Technology** — The practical use of technology to improve life in areas such as agriculture, cultural heritage conservation and more

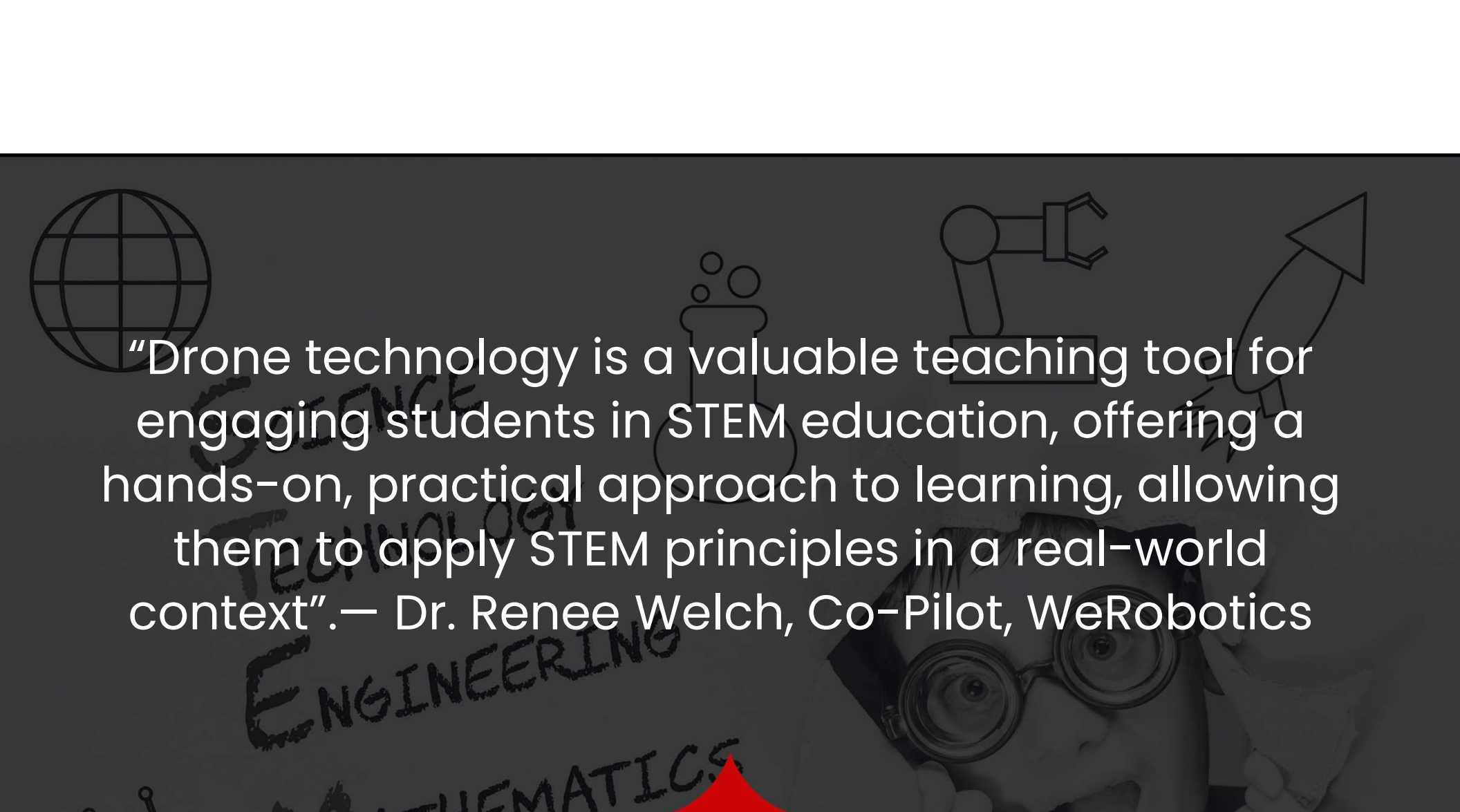




# STEM Education

- **Engineering** — can include data engineering and analysis in areas such as aeronautics, electronics and electrical, mechanical, and robotics engineering.
- **Mathematics** — Building and running Autonomous Systems and applications such as mapping missions, obstacle avoidance and more.



The background features a dark grey collage of STEM-related icons and text. On the left is a wireframe globe. In the center is a laboratory flask with three bubbles rising from it. To the right is a robotic arm with a gripper. Further right is a stylized rocket ship with a large arrow pointing upwards. At the bottom, there is a faint, hand-drawn illustration of a person's face wearing large, round glasses. Overlaid on this background are the words 'SCIENCE', 'TECHNOLOGY', 'ENGINEERING', and 'MATHEMATICS' in a hand-drawn, chalk-like font.

“Drone technology is a valuable teaching tool for engaging students in STEM education, offering a hands-on, practical approach to learning, allowing them to apply STEM principles in a real-world context”.— Dr. Renee Welch, Co-Pilot, WeRobotics

# STEM Education



# A thought for the future

- UAV education is now an essential component not only for meeting industry demand but also for empowering the next generation to lead and innovate in a UAV-driven world.
- UAVs are part of the new educational journey to prepare students for future careers while giving them the tools to reach new heights.
- Mr. Small will next examine specific careers that are UAV related.



**THANK YOU!**