BOXLIGHT WEBINAR SERIES

A Robotic Odyssey: How Robotics Is Helping Prepare Students to Be Tomorrow's Inventors, Programmers, and Astronauts
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Presenters:
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Recording Link:
https://mimio.adobeconnect.com/pexijhzhafjn/

<u>Webinar Questions and Answers</u>

Q: How can these activities be used with younger students and extended for older students?
A: Content isn't written into the activities by design. Rather, strategies of how to facilitate the activities with students is included. The activities provide suggestions for how to use them and how to get kids to work together. The teacher can then feed content at the level desired to meet the learners.

Q: Are the activities discussed aligned with NGSS?
A: Students are working together in teams collaborating to solve problems as part of Mission Control. The activities are designed to have collaborative groups and role playing where students communicate with each other and develop solutions. The content can be incorporated to relate to the bigger themes of collaboration and communication.

Q: Do you have any articles that would discuss how your robots can be used to integrate science and math (and other subjects) into programming courses?
A: There have been articles written available on the Boxlight website about integrating robots into the classroom. A focus has been on collecting and analyzing data and how to interpret the information. In addition, the Mimio MyBot is a data logger device that can be programmed using Blockly or Python to collect information. Our thought is to take robotics much further than just programming. Students are given the task in teams to collect data, analyze the information, and then decide what the next mission should be. From there, they continue the learning process to solve problems on a grander scale. With this, the experience can be taken across many curricular areas like math, writing, engineering, programming, science, and more.

Q: Is there a difference in resolution between the 15-foot map and the 25-foot map?
A: There isn't a significant difference in the resolution. The 25-foot map is just bigger and easier to read than the somewhat smaller 15-foot map.

Q: What are the sensors on the Mimio MyBot that we could use for other data collection?
A: There are various sensors that can be used to collect data depending on the need. There is an optical distance sensor that can be used to detect objects or pointed down on the map to get a single image of the surface. A color sensor can be integrated to interpret map colors to detect differences in colors for data logging. Other sensors that could be utilized include a magnetic sensor, light sensors for ambient light, Earth sensors that include pressure, temperature, humidity, and soil moisture, just to mention a few.

Q: How did you decide on this robot? Why is it the best one?
A: The Mimio MyBot is more about programming and coding rather than just driving, which you see in many of the other toy-like products. Another reason is the ability to program and connect to the robot is very simple using the built-in Wi-Fi and any device you have that is Wi-Fi enabled. The Mimio MyBot is very durable with its solid erector set design style. The data logger provides the very unique ability to collect scientific information, which opens up so many other possibilities. All of these combined feed into the decision why ShareSpace Education adopted this particular solution. The sky is the limit!

LINK TO PRESENTION FILE (PDF) **need to add**

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