



National STEM Scholar Program

Messenger Bot

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Challenge: Your School needs to develop a messenger robot which will send written messages between different areas of the school. This will allow for communication without the distraction of a PA system. The students will create the **Messenger Bot** using Vex Robots.

Background Work: Students introduced to programming through use of www.hourofcode.org resources

Initial Robotics: Students created a scale map of the school and programmed Ozobots to travel on the map

Messenger Robot Build: Students built and programmed the **Messenger Bot** using Vex Robots.



Goals:

- Introduce Students to programming
- Develop a base level understanding of robot construction
- Build problem solving skills
- Prepare students for future robot competitions

Materials and References:

- Tablets to access www.hourofcode.com
- Ozobot Bits – www.ozobot.com
- Vex Robots - www.vexrobotics.com
- Scale model of School
- Map of Event to be represented



NGSS Standards: Engineering design MS-ETS1-1, MS-ETS1-2, MS-ETS1-3

Additional Information: <https://nationalstemcellfoundation.org/projects/john-oneill/>