

Manitoulin Robotics Day Agenda

1. Introductions: Eric, Ethan, and Seth Albers, Matthew and Jacob Little, William and Carson Nicklasson, Darren Foy.
2. The ultimate goal of a robotics program - F.I.R.S.T. LEGO League
https://www.youtube.com/watch?feature=player_embedded&v=4LVV_wz4S74
3. <https://www.youtube.com/watch?v=-MSSAiEcT0>
4. Budget for a team (about \$1200.00)?
 - a. Cost cutting - CIM, new team grants (~\$500.00), mentor's grant (~\$200.00), Junior FLL (\$200.00), community sponsors, drives, donations of old LEGO pieces. Any LEGO parts are legal to use in the competition.
 - i. [CIM Proposal Form](#)
 - b. EV3 Core Set with Charger \$399.95
 - c. Expansion Kit \$114.95
 - d. Field Set Up Kit \$90.00
 - e. Team Registration (FLL) \$260.00
 - f. Regional Competition (FLL) \$214.70
 - g. T-shirts & Team Spirit items - about \$15.00 per member
 - h. Project materials for backboard - will vary
 - i. Copy of successful CIM Proposal
5. Non-FLL Robotics/Tech Club?
 - a. Less expensive.
 - b. You can still apply for non FLL grants.
 - c. Buy a robotics kit, learn how to program, learn how to build.
 - d. Less expensive RDSB competitions are being developed
 - i. Drilling and mucking competition?
 - ii. Automated farming processes?
 - e. Question and Answer 1
6. Demonstrations by student experts
 - a. wheel rotations, turning, stopping
 - b. line following
 - c. colour sensing
 - d. Question and Answer 2
7. Hands-On Time
 - a. Achievement goals
 - i. wheel rotations, turning, stopping (aim for a 90degree turn
 - ii. line following
 - iii. colour sensing
 - iv. touch sensor
 - v. sonic sensor
8. Curriculum Scavenger Hunt
 - a. Locate your grade's Science Units.
 - b. Scan and find curriculum expectations that could be addressed by programming, building, running, or investigating LEGO robots.
 - c. Copy and paste your expectations into the shared Google Doc, LEGO Robotics Curriculum Connections.
9. More Hands-On Time
10. Clean Up (clean up, everybody clean up...)

LEGO Robotics Curriculum Connections

21st Century Learning skills

-collaboration, critical thinking, communication, creativity

Grade 4

Grade 5

Grade 6

Grade 7

Grade 8

Grade 9-12