

# STEM MINDS & ST MARY CES LEGO ROBOTICS

WINTER 2019



**Location:** St Mary CES

**When:** Tuesdays

**Start Date:** Tuesday January 22

**End Date:** Tuesday April 16

**Time:** 12:00 – 1:00 pm

**Cost:** \$190 + HST

**Grades:** 3-8

\*No class March 12

Maximum class size: 24 students (first come first served registration)

\*please note that a minimum of 10 students is required to run the program. STEM MINDS reserves the right to cancel a program and provide a full refund to registrants in the event of insufficient enrolment.

STEM MINDS™ is pleased to propose a **12 WEEK LEGO ROBOTICS PROGRAM** every **TUESDAY** from **12:00 – 1:00** from **JANUARY 22 to APRIL 16** at **ST MARY CES**

The LEGO Robotics Club will provide participants the opportunity to learn coding in an exciting, hands-on, challenge-based environment using the LEGO® EV3 Mindstorm® Robots. Each week will focus on a new programming fundamental where participants will code and run missions that solve real-world problems. As part of the program, participants will have access to a LEGO EV3 Robot and a laptop and will learn concepts of design thinking and strategy to rationalize their programs and improve their skills!

To register, please visit

<https://stemminds.com/product/lego-robotics-st-mary-ces-winter-2019/>

| <b>Session Overview - Beginner</b> |  |
|------------------------------------|--|
| Session 1                          | Introduction to LEGO EV3 & Moving Straight |
| Session 2                          | Moving Straight Part 2                     |
| Session 3                          | Turning                                    |
| Session 4                          | Turning Part 2                             |
| Session 5                          | Medium Motor/Arm                           |
| Session 6                          | Loops                                      |
| Session 7                          | Wait                                       |
| Session 8                          | Multitasking & Comments                    |
| Session 9                          | Touch Sensor Part 1                        |
| Session 10                         | Touch Sensor Part 2                        |
| Session 11                         | Ultrasonic Sensor                          |
| Session 12                         | Final Challenge                            |

| <b>Session Overview - Intermediate</b> |                                  |
|--|----------------------------------|
| Session 1                              | LEGO Ev3 Basics & Sensors Review |
| Session 2                              | Ultrasonic Sensor                |
| Session 3                              | Colour Sensor                    |
| Session 4                              | Gyro Sensor                      |
| Session 5                              | Ultimate Sensor Challenge!       |
| Session 6                              | Switch Statements Part 1         |
| Session 7                              | Switch Statements Part 2         |
| Session 8                              | Line Following Part 1            |
| Session 9                              | Line Following Part 2            |
| Session 10                             | Gyro Sensor Calibration Part 1   |
| Session 11                             | Gyro Sensor Calibration Part 2   |
| Session 12                             | Final Challenge                  |