



ST CLARE SCHOOL ROBOTICS CLUB PROPOSAL

St Clare School Robotics Club Proposal

Overview of Proposal

The goal of this proposal is to introduce a pilot Robotics Club at the St Clare school for 24 interested students from grades 3 and 4. The St Clare Robotics Club goal will be introduce hands on STEM learning and allow students to experience real life engineering challenges by building Lego based robots and by following Lego designed curriculum.

Goals

- Introduce students to the design, building and programming of Lego robotic kits (LEGO MINDSTORMS®).
- Design, build, test and program robots using LEGO MINDSTORMS® technology.
- Apply real-world math and science concepts.
- Research challenges facing today's scientists.
- Learn critical thinking, team-building and presentation skills.
- Post projects online to share with family

Budget

The pilot will accept 24 interested students and will require a payment of \$400 from each family for the entire 2019 school year.

400x24 students will generate \$9,600 in order to cover the expense of purchasing MindStorm Comprehensive Solution that includes all expansion sets, training materials and extra supplies to cover lost parts.

Required Supplies

- MindStorm Comprehensive Solution for up to 30 Students
- Ipads - school to provide 12 for 24 students 1 per two students
- Paper and crayons - school to provide
- Other objects such as water bottles, rubber bands, etc... - Parent Teachers to provide depending on lesson plans

Proposed Time of the Club

The club will meet every Friday at 3PM for 2 hours in order to provide a comfortable atmosphere and to accommodate 90 minute curriculum classes with plenty of time to spare to foster a comfortable and relaxed environment.

Proposed Teachers for the Club

The club will require a minimum of 3 Parent Volunteer Teachers in order to ensure year round coverage. Each teacher will be required to take Online learning course prepared by Lego for the Lego MindStorm program:

<https://elearning.legoeducation.com/ev3-tablet>

Proposed Teachers are as follows:

- James Fridman
- Baik Hoh
- TBD

Initial Lesson Plan

- Prepare - preparing the robotics core sets
- Use a large motor
- Use a Touch Sensor
- Make a straight move
- Make a Turn
- Detect an Object
- Curved Move
- Move Object

- Stop at Object
- Stop at Angle
- Stop at Line
- Follow a Line

Tasks

July 19th Deadline:

- Meet with Mrs. Mantecon to go over the plan and get buy in
- Create brochure for parents and website to advertise the club
www.stclarerobotics.com is available. Students will later use the site to show off their creations with their family members
- Determine space for the class, storage needs, etc...
- Set a deadline for parents to sign up and send out the brochures/site

August 30nd Deadline:

- Purchase the kits
- Parent Volunteers to take online training as outlined above
- Parent Volunteers to meet and go over lesson plans while practicing with a real life kit

End of September Deadline:

- Go Live first class by end of September