

BVPAGE 2019 Summer Robotics Camps

Each camp is **five** half-days, Monday - Friday

There are two camp sessions per week:

- Morning session: 9 - noon for grades 1 - 3
- Afternoon session: 1 - 4:00 for grades 4 - 7

Week 1: Monday-Friday, June 3 - 7

Week 2: Monday-Friday, June 10 - 14

Registration will begin Feb 12, 2019

Scroll down for complete camp information.

To register and pay for camps (beginning Feb 12), use this link:

<https://www.eventbrite.com/o/bvpage-wwwbvpageorg-5871938847>

Location for all 2019 camps is:

Blue Valley Middle School Commons

5001 W 163rd Terrace, Stilwell, KS 66085

(from 159th and Nall, go south on Nall and turn east on 163rd Terr.)

General information about all of our summer camps

- All materials including robots and computers are supplied by the camps.
- Camps are not limited to students with a gifted IEP; however the pace and material is geared to students who are high ability and gifted learners. Students need to be able to follow complex instructions and work with a partner in a bustling, active, and sometimes noisy learning environment.
- All camps will be taught by veteran instructors Laura Jackson and Cindy Howard. Students will work in groups of two or three to problem solve, build and program.
- **The last day of each camp, parents will be invited to come for a demonstration.** More information will be emailed since the times will vary depending on the camp.
- Tuition is \$170 per camp; a limited number of openings are available for \$85 tuition for students who receive free lunch in the Blue Valley School District. If you would like to request reduced tuition, please email bvpage.robotics@gmail.com for the discount code prior to enrolling.
- **Cancellations** will incur a \$25 cancellation fee before April 1. After April 1 the cancellation fee is 50%, or \$85.
- **Cancellation** within one week of the start of a camp will be refunded 50% **ONLY** if we are able to fill the spot from the wait list; otherwise no refund will be given within one week of a camp starting.

If BVPAGE should be forced to cancel camps due to emergency circumstances such as unforeseen facility or instructor unavailability, a full tuition refund, minus \$10 ticket administration charge we incur from eventbrite, will be issued.

See 2019 camp schedule on next page

2019 Camp Schedule -- See **Camp Descriptions** below

	Morning Camp 9:00 - 12:00 Monday - Friday	Afternoon Camp 1:00 - 4:00 Monday - Friday
Week 1 June 3 - 7	WeDo Students have completed grade 1 - 3* (currently enrolled in grades 1 - 3 during 2018-19 school year)	EV3 Students have completed grade 4 - 7* (currently enrolled in grades 4 - 7 during 2018-19 school year) Missions: Food Factor / World Class
Week 2 June 10 - 14	WeDo Students have completed grade 1 - 3* (currently enrolled in grades 1 - 3 during 2018-19 school year)	EV3 Students have completed grade 4 - 7* (currently enrolled in grades 4 - 7 during 2018-19 school year) Missions: Food Factor / World Class

*By June 2019, student has completed the specified grade. For example, WeDo camp students will be currently enrolled in grade 1, 2 or 3, and **will have completed** Grade 1, 2 or 3 by June 2019 camp dates.

Camp Descriptions; see also FAQ on last page

WeDo Camps for students who have **completed** 1st, 2nd, and 3rd grades (students are currently in grade 1, 2 or 3 during the 2018-19 school year)

WeDo camps: morning camps both weeks. This is the **same camp** repeated both weeks; **do not register the same student for more than one week of WeDo.**

2019 WeDo camps will feature all new material from 2018 camp. Current 2nd and 3rd graders who enjoyed 2018 WeDo last summer will find new models this year.

An adventure for young students, WeDo camp will introduce students who have completed 1st, 2nd, and 3rd grades to robotics. This camp uses the original WeDo kit as well as the WeDo 2.0 kit from **LEGO Education**. Students will follow guides to build models featuring working motors and sensors; use computers to program their models; and complete a series of activities.

Students will work in pairs which may be varied by the instructors throughout the week.

On Friday, parents will be invited for a demonstration. Parents will be emailed with more details about the timing of the demonstration. It will start about 90 minutes before the end of class, and after demonstrations conclude, parents and students may leave.

Camp Descriptions continued

EV3 Robotics Camps for students who have completed 4th through 7th grades (students are currently in grades 4, 5, 6, or 7 during the 2018-9 school year)

Afternoon camp both weeks

Students may take both weeks of EV3 camp and experience different themes, or keep working on different missions within the same theme.

The EV3 camps use the **EV3 robot** from **Lego Education**. The robot is programmed on a computer and some building is done to equip the robot for specific tasks; however this is **not** a “building with legos” camp but is more focused on programming the robot to complete tasks.

Students may enroll in the EV3 camps with any level of robotics experience, beginner through advanced. Instruction will be differentiated to meet students' levels of experience. Students are welcome to enroll in more than one EV3 camp. Skills will build with each camp. Beginner students will have more instruction available while more advanced students will start with challenges at their level each week.

Missions for the EV3 camps are taken from previous years' First Lego League (FLL) challenges. Each week two challenge themes will be offered; instructors will help students select based on skill level and class composition. Missions will range in difficulty level to provide for a variety of levels of experience. Instructors will help students select the missions most appropriate for their level of experience and ability. While they will consider students' preferences of theme, we cannot guarantee that every student will get his/her first choice since the class will need to be divided between the two available missions so everyone can get maximum hands-on time.

Students will work with partners and complete daily missions with the EV3 robots. Students experience teamwork and communication by working in teams; team compositions may be varied by the instructors throughout the week. Programming skills will include (but are not limited to) moving the robot forward and backward, turning, and using sensors (touch, ultrasonic, and light/color). Students will also have the opportunity to create accessory pieces to add on to the basic robot to carry out tasks.

Students will not want to miss the last day of camp. Each week, the last day will be devoted to a competition based on what students have learned during the week. Parents will be invited to watch; more information will be emailed. The tournament will start about one hour after camp start time, and after it concludes, students will need to help clean up and put the (many, many) pieces in their proper places before being dismissed.

Camp themes repeated from past camps will feature the same challenges. However each theme presents multiple challenges, and students may repeat a theme and still do challenges that are new to them.

Frequently Asked Questions

Q: If my student takes more than one week of EV3 camp, will s/he learn new things the second week?

A: Yes. Themes and challenges will differ week to week, and even within the same theme, students will find new ways to try different tasks. It is virtually impossible in one week to solve every task on a challenge. Students who repeat more than one week will have opportunities to learn new skills and try new tasks every day of every camp.

Q: Explain EV3 "Themes" and "Challenges"?

A: EV3 camps use challenges from past years' FLL (First Lego League) challenges. Every year, a new FLL team challenge is issued. Each one has a theme (i.e. Food Factor) and the tasks that the students program the robot to complete go along with that theme. The programming skills students will learn, such as forward/reverse, turn 90 or 180 degrees, use sensors, raise or lower attachments, etc., are the same every camp. However students may use different strategies and therefore learn different skills to accomplish the same task or different tasks. In every theme, some tasks are easier and some are harder. Students can choose which tasks they want to attempt.

Q: Will you accept a student who is younger than the stated age range for a camp?

A: No. We have found that maturity level and readiness for the camps are very important in student enjoyment of the camps, and we have decided to make the age groups non-flexible, based on past years' experience, to improve student opportunities for success and enjoyment.

Q: My student is easily overstimulated. Will s/he enjoy this camp?

A: This is a fast-paced, noisy, action-packed 3 hours and students WILL encounter failure and have to try multiple times to succeed at a task. Students who prefer a calm or quiet environment might find these camps overstimulating. Students will be guided by the instructors in dealing positively with failure at tasks; assessing what didn't work, re-engineering and re-programming is an integral part of the lesson. Students who have trouble if things don't go exactly as planned may not be emotionally ready for this approach.

Q: Can my student partner with a friend or sibling?

A: For the most part, instructors will allow the students to choose partners. However if differing ability levels or other discrepancies may affect one member's enjoyment and participation, instructors will reassign partners as they feel appropriate.

Q: My student will be gone one or more days of camp; is that OK?

A: For the WeDo camps, each day is a new build, and missing a day is OK. However, parent day is Friday and students may be disappointed to miss Friday.

For the EV3 camps, being present every day is very important to success in the final day challenge.

Students will not want to miss a day. Students especially won't want to miss the tournament on the last day. We suggest that **if you know you will be out of town for one or more days of EV3 camp, it's best not to enroll that week.**

Q: Do you accept students who live in other districts?

A: District facilities do allow us to accept a certain number from outside of the district. Please email www.bvpage.org prior to registering, to ensure that we are able to accept your registration.

Email questions to: bvpage.robotics@gmail.com