# ROBOTICS LAB #209

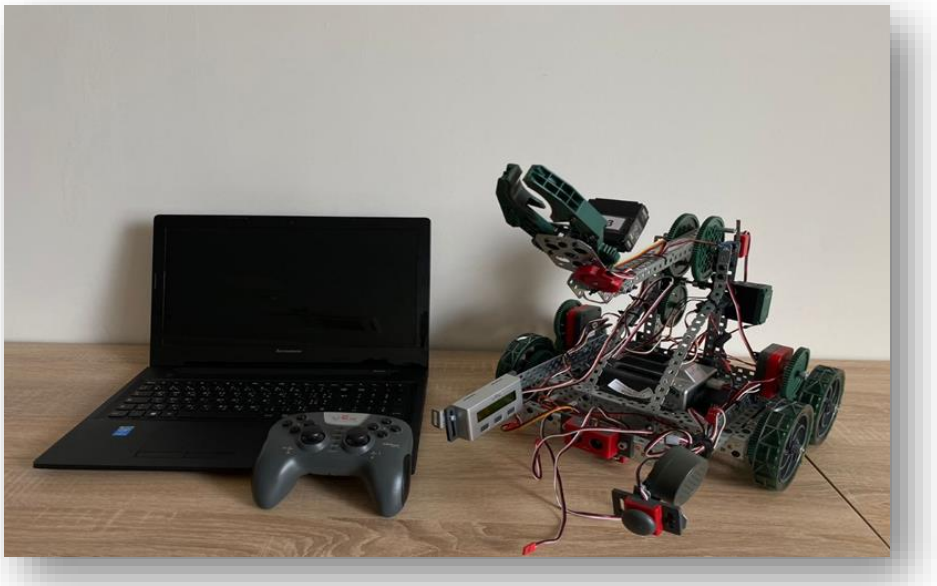
COMPUTER ENGINEERING DEPARTMENT

## Short Description:

Robotics lab houses 16 programmable VEX ClawBot robotics kits. These robots can be programmed by students to interact with its surrounding environment autonomously (without human intervention) through its integrated sensors, claw arms and actuators.

## Equipment specifications:

- **Robots**



Robotic laboratories contain 16 robot each has their own laptops, and they use ROBOT C for programming them, each robot consist of many sensors such as optical sensor, ultrasonic, bumper switch etc. Each unique part of the VEX ecosystem works together to deliver meaningful learning experiences for all students. The VEX Classroom Bundles contain all the STEM hardware needed while educators get professional development, curriculum, and support

- The Robot Brain connects your entire robot together and includes a color screen for quick and easy control. Multiple international languages will be available.
- The Robot Battery uses Lithium-ion technology to provide all-day classroom usage in most situations and includes a button for quick battery charge indication.
- The Controller enables wireless robot driving and wireless code download.
- The Optical Sensor lets the robot see light, color and gestures, even in darker rooms.
- The Distance Sensor (2nd generation) uses a safe laser to accurately detect distances without interference.
- The Touch LED provides human touch input to the robot and color output to human eyes.
- The Bumper allows the robot to feel when it hits a wall or another robot.
- And the most important part of all, the Smart Motors make it all come to life with power and precision.