Robotics Kit for Project

Sl. No	Proposed equipment	Specifications	No. of unit
1.	GoPiGo Robot Starter Kit	• **Operating Voltage**: 7-12V • **Current usage**: o 300-500 mA (Idle with the Raspberry Pi Model B+) o 800 mA-2A (Motors, camera and servo running with the Raspberry Pi Model B+) • **External Interfaces:** o I2C– 1Port o Serial– 1 Port o Analog– 1 Port o Digital/PWM- 1Port • **Motor controller:** SN7544 • **Encoders** o 2 Optical encoders with 18 pulse counts per rotation • **Wheel Diameter**: 65mm • **MCU:** Atmega 328	1
2.	Pixy CMUcam5 Image Sensor	• Fast, easy-to-use vision sensor with a powerful processor • Processor: NXP LPC4330, 204 MHz, dual core • Image sensor: Omnivision OV9715, 1/4", 1280x800 • Lens field-of-view: 75 degrees horizontal, 47 degrees vertical • Data outputs: UART serial, SPI, I2C, USB, digital, analog	1
3.	Google Vision Api Platform	• Label Detection • OCR • Explicit Content Detection • Facial Detection • Landmark Detection • Logo Detection • Image Properties	1
4.	PiKit Modular Robot	**Features of PiKit board:** • 3 - axis accelerometers and gyroscopes • 3 - axis magnetometer • PWM expansion chip (16 more PWM outputs) • Various input voltage from 6 to 40 volts • LCD backlit 32 characters display • Safe turn off switch • Four backlit buttons • Speaker • Piezo buzzer • Programmable Atmel processor for power management • 5V and 3.3V DC/DC converter	1

		• Charge connector for batteries * (additional page attached)	
5.	Lego Mindstorms EV3 31313	▢ Intelligent EV3 Brick with powerful ARM9 processor, Wi-Fi USB port and Internet connectivity, Micro SD card reader, back-lit buttons and 4 motor ports ▢ 3 interactive servo motors, remote control, imp. and redesigned color sensor, redesigned touch sensor, infrared sensor, 550+ LEGO Technic elements	1