

Oklahoma Academic Standards for Computer Science {Grades			KIPR Curriculum
Concept	Subconcept	Standard	
Kindergarten			
Computing Systems	Devices	K.CS.D.01 With guidance, follow directions and start to make appropriate choices to use computing devices to perform a variety of tasks.	Module 8- Writing Your First Program Module 9- Moving Your Robot
	Hardware & Software	K.CS.HS.01 Use appropriate terminology to locate and identify common computing devices and components, in a variety of environments (e.g., desktop computer, laptop computer, tablet device, monitor, keyboard, mouse, printer).	Module 4- Computer Communication Module 6- Introduction to Robots
	Troubleshooting	K.CS.T.01 Recognize that computing systems might not work as expected and with guidance use accurate terminology to identify simple hardware or software problems (e.g., volume turned down on headphones, monitor turned off).	Connecting To Your Wallaby Module 8- Writing Your First Program
Networks & The Internet	Network Communication & Organization	K.NI.NCO.01 Recognize that computing devices can be connected together.	Module 4- Computer Communication Connecting To Your Wallaby Module 8- Writing Your First Program
	Cybersecurity	K.NI.C.01 Discuss what passwords are and why we do not share them with others. With guidance, use passwords to access technological devices, apps, etc.	Module 5- Cybersecurity Navigating the Digital World
Data Analysis	Storage	K.DA.S.01 With guidance, locate, open, modify and save an existing file with a computing device.	Connecting To Your Wallaby Module 8- Writing Your First Program Module 9- Moving Your Robot
	Collection, Visualization, & Transformation	K.DA.CVT.01 With guidance, collect data and present it visually.	Activity M83 Activity M84 Activity M85
	Inference & Models	K.DA.IM.01 With guidance, draw conclusions and make predictions based on picture graphs or patterns (e.g., make predictions based on weather data presented in a picture graph or complete a pattern).	Activity M85

Algorithms & Programming

Algorithms	K.AP.A.01 With guidance, model daily processes and follow algorithms (sets of step-by-step instructions) to complete tasks verbally, kinesthetically, with robot devices, or a programming language.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot
Variables	K.AP.V.01 With guidance, recognize that computers represent different types of data using numbers or other symbols.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot
Control	K.AP.C.01 With guidance, independently or collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing (i.e., emphasizing the beginning, middle, and end).	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot
Program Development	K.AP.PD.01 With guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by-step) manner (e.g., story map, storyboard, and sequential graphic organizer).	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot
	K.AP.PD.02 Independently or with guidance give credit to ideas, creations and solutions of others while developing algorithms.	Teamwork and Project Management Strategies
	K.AP.PD.03 With guidance, independently or collaboratively debug algorithms using a programming language and/or unplugged activity that includes sequencing.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot
	K.AP.PD.04 Use correct terminology (beginning, middle, end) in the development of an algorithm to solve a simple problem.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot

Impacts of Computing	Culture	K.IC.C.01 List different ways in which types of technologies are used in your daily life.	Module 5- Cybersecurity Navigating the Digital World
	Social Interactions	K.IC.SI.01 With guidance, identify appropriate manners while participating in an online environment.	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
1st Grade			
Computing Systems	Devices	1.CS.D.01 With guidance, select and use a computing device to perform a variety of tasks for an intended outcome.	Module 8- Writing Your First Program Module 9- Moving Your Robot
	Hardware & Software	1.CS.HS.01 Use appropriate terminology in naming and describing the function of common computing devices and components (e.g., mouse is used to control the cursor).	Module 4- Computer Communication Module 6- Introduction to Robots
	Troubleshooting	1.CS.T.01 Identify, using accurate terminology, simple hardware and software problems that may occur during use (e.g., app or program is not working as expected, no sound is coming from the device, caps lock turned on).	Connecting To Your Wallaby Module 8- Writing Your First Program
Networks & The Internet	Network Communication & Organization	1.NI.NCO.01 Recognize that by connecting computing devices together they can share information (e.g., remote storage, printing, the internet).	Module 4- Computer Communication Connecting To Your Wallaby Module 8- Writing Your First Program
	Cybersecurity	1.NI.C.01 Identify what passwords are; explain why they are not shared; and discuss what makes a password strong. Independently, use passwords to access technological devices, apps, etc.	Module 5- Cybersecurity Navigating the Digital World Connecting To Your Wallaby
Data Analysis	Storage	1.DA.S.01 With guidance locate, open, modify and save an existing file, use appropriate file-naming conventions, and recognize that the file exists within an organizational structure (drive, folder, file).	Connecting To Your Wallaby Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering
	Collection, Visualization, & Transformation	1.DA.CVT.01 With guidance, collect data and present it two different ways.	Activity M83 Activity M84

Algorithms & Programming

Inference & Models	1.DA.IM.01 With guidance, identify and interpret data from a chart or graph (visualization) in order to make a prediction, with or without a computing device.	Activity M85
Algorithms	1.AP.A.01 With guidance, model daily processes and follow algorithms (sets of step-by-step instructions) to complete tasks verbally, kinesthetically, with robot	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming
Variables	1.AP.V.01 With guidance, model the way that a program accesses stored data using a variable name.	Module 8- Writing Your First Program Module 9- Moving Your Robot
Control	1.AP.C.01 With guidance, independently or collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing and repetition.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module 7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering
Program Development	1.AP.PD.01 Independently or with guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by- step) manner (e.g., story map, storyboard, and sequential graphic organizer).	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module 7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering
	1.AP.PD.02 Independently or with guidance give credit to ideas, creations and solutions of others while writing and/or developing programs.	Teamwork and Project Management Strategies Module 5- Cybersecurity Navigating the Digital World
	1.AP.PD.03 With guidance, independently or collaboratively debug programs using a programming language and/or unplugged activity that includes sequencing and repetition.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module 7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering
	1.AP.PD.04 Use correct terminology (first, second, third) and explain the choices made in the development of an algorithm to solve a simple problem.	Module 2- Creating Algorithms (Unplugged) Module 3- Unplugged programming Module 7- Introduction to Programming Languages (Unplugged) Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering
Culture	1.IC.C.01 Identify how people use different types of technologies in their daily work and personal lives.	Module 5- Cybersecurity Navigating the Digital World
Social Interactions	1.IC.SI.01 With guidance, identify appropriate and inappropriate behavior. Act responsibly while participating in an online community and know how to report concerns.	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies

Impacts of Computing

2nd Grade			
Computing Systems	Devices	2.CS.D.01 Select and use a computing device to perform a variety of tasks for an intended outcome.	Module 8- Writing Your First Program
	Hardware & Software	2.CS.HS.01 Identify the components of a computer system and what the basic functions are (e.g., hard drive and memory) as well as peripherals (e.g., printers, scanners, external hard drives) and external storage features and their uses (e.g., cloud storage).	Module 9- Moving Your Robot Module 4- Computer Communication Module 6- Introduction to Robots
	Troubleshooting	2.CS.T.01 Identify using accurate terminology, simple hardware and software problems that may occur during use (e.g., app or program is not working as expected, no sound is coming from the device, caps lock turned on) and discuss problems with peers and adults.	Connecting To Your Wallaby Module 8- Writing Your First Program
Networks & The Internet	Network Communication & Organization	2.NI.NCO.01 Recognize that computing devices can be connected at various scales (e.g., bluetooth, WiFi, WWW, LAN, WAN, peer-to-peer).	Connecting To Your Wallaby Module 4- Computer Communication
	Cybersecurity	2.NI.C.01 Explain what passwords are; why we use them, and use strong passwords to protect devices and information from unauthorized access.	Module 5- Cybersecurity Navigating the Digital World Connecting To Your Wallaby
Data Analysis	Storage	2.DA.S.01 With guidance, develop and modify an organizational structure by creating, copying, moving, and deleting files and folders.	Connecting To Your Wallaby Module 8- Writing Your First Program Module 9- Moving Your Robot
	Collection, Visualization, & Transformation	2.DA.CVT.01 With guidance, collect and present the same data in various visual formats.	Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85
	Inference & Models	2.DA.IM.01 With guidance, construct and interpret data and present it in a chart or graph (visualization) in order to make a prediction, with or without a computing device.	Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85
Algorithms & Programming	Algorithms	2.AP.A.01 With guidance, model daily processes by creating and following algorithms (sets of step-by- step instructions) to complete tasks verbally, kinesthetically, with robot devices, or a programing language.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo
	Variables	2.AP.V.01 Model the way a computer program stores, accesses, and manipulates data that is represented as a variable.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo

	Control	2.AP.C.01 With guidance, independently and collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing and repetition.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo
	Program Development	2.AP.PD.01 Independently or with guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by- step) manner (e.g., story map, storyboard, and sequential graphic organizer). 2.AP.PD.02 Give credit to ideas, creations and solutions of others while writing and developing programs.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo
		2.AP.PD.03 With guidance, independently and collaboratively debug programs using a programming language and/or unplugged activity that includes sequencing and repetition.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo
		2.AP.PD.04 Use correct terminology (debug, program input/output, code) to explain the development of an algorithm to solve a problem in an unplugged activity, hands on manipulatives, or a programming language.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo
Impacts of Computing	Culture	2.IC.C.01 Identify and describe how people use different types of technologies in their daily work and personal lives.	Module 5- Cybersecurity Navigating the Digital World
	Social Interactions	2.IC.SI.01 Develop a code of conduct, explain, and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior.	Teamwork and Project Management Strategies Module 5- Cybersecurity Navigating the Digital World
3rd Grade			
Computing Systems	Hardware & Software	3.CS.HS.01 Model how information flows through hardware and software to accomplish tasks.	Module 4- Computer Communication Module 6- Introduction to Robots
	Troubleshooting	3.CS.T.01 Identify, using accurate terminology, simple hardware and software problems that may occur during everyday use, discuss problems with peers and adults, and apply strategies for solving these problems (e.g., refresh the screen, closing and reopening an application or file, unmuting or adjusting the volume on headphones).	Module 4- Computer Communication Module 6- Introduction to Robots Module 8- Writing Your First Program Module 9- Moving Your Robot Connecting to Your Wallaby
Networks & The Internet	Network Communication & Organization	3.NI.NCO.01 Recognize that information is sent and received over physical or wireless paths.	Module 4- Computer Communication Connecting to your Wallaby
	Cybersecurity	3.NI.C.01 Identify problems that relate to inappropriate use of computing devices and networks.	Module 5- Cybersecurity Navigating the Digital World Connecting To Your Wallaby

Data Analysis

Storage

3.DA.S.01 Recognize that different types of information are stored in different formats that have associated programs (i.e., documents open in a word processor) and varied storage requirements.

Module 7- Introduction to Programming Languages (Unplugged)
Module 8- Writing Your First Program
What is a Library?

Collection, Visualization, & Transformation

3.DA.CVT.01 Collect and organize data in various visual formats.

Activity M4
Activity M41
Activity M68
Activity M83
Activity M84
Activity M85
Activity M93
Activity M94
Activity M95
Activity M96

Inference & Models

3.DA.IM.01 With guidance, utilize data to make predictions and discuss whether there is adequate data to make reliable predictions.

Activity M4
Activity M41
Activity M68
Activity M83
Activity M84
Activity M85
Activity M93
Activity M94
Activity M95
Activity M96

Algorithms & Programming

Algorithms

3.AP.A.01 Compare multiple algorithms for the same task.

Module 2- Creating Algorithms (Unplugged)
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors

Variables

3.A.V.01 Create programs that use variables to store and modify grade level appropriate data.

Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors

Control

3.AP.C.01 Create programs using a programming language that utilize sequencing, repetition, conditionals, and variables to solve a problem or express ideas both independently and collaboratively.

Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors

Impacts of Computing

Modularity	3.AP.M.01 Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors
	3.AP.M.02 With grade appropriate complexity, modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors
	3.AP.PD.01 Use an iterative process to plan the development of a program while solving simple problems.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors
	3.AP.PD.02 Observe intellectual property rights and give appropriate credit when creating or remixing programs. 3.AP.PD.03 Analyze and debug a program that includes sequencing, repetition and variables in a programming language.	Module 5- Cybersecurity Navigating the Digital World Module 8- Writing Your First Program Teamwork and Project Management Strategies Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors
Program Development	3.AP.PD.04 Communicate and explain your program development using comments, presentations and demonstrations.	Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors
	3.IC.C.01 Identify computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.	Module 5- Cybersecurity Navigating the Digital World
Culture		

	Social Interactions	3.IC.C.02 Identify possible problems and how computing devices have built in features for increasing accessibility to all users. 3.IC.SI.01 Develop a code of conduct, explain, and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior. 3.IC.SI.02 Identify how computational products may be, or have been, improved to incorporate diverse perspectives.	Module 5- Cybersecurity Navigating the Digital World Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies Module 9- Moving Your Robot Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Module 5- Cybersecurity Navigating the Digital World
	Safety, Law, & Ethics	3.IC.SLE.01 Identify types of digital data that may have intellectual property rights that prevent copying or require attribution.	
	4th Grade		
Computing Systems	Hardware & Software	4.CS.HS.01 Model that information is translated, transmitted, and processed in order to flow through hardware and software.	Module 4- Computer Communication Module 6- Introduction to Robots Module 7- Introduction to Programming Languages
	Troubleshooting	4.CS.T.01 Identify, using accurate terminology, simple hardware and software problems that may occur during everyday use, discuss p problems with peers and adults, and apply strategies for solving these problems (e.g., rebooting the device, checking the power, force shut down of an application).	Module 4- Computer Communication Module 6- Introduction to Robots Module 8- Writing Your First Program Module 9- Moving Your Robot Connecting to Your Wallaby
Networks & The Internet	Network Communication & Organization	4.NI.NCO.01 Explain how information is sent and received across physical or wireless paths. (It is broken down into smaller pieces called packets and transmitted from one location to another.)	Module 4- Computer Communication Connecting to your Wallaby
	Cybersecurity	4.NI.C.01 Identify and explain issues related to responsible use of technology and information, and describe personal consequences of inappropriate use.	Module 5- Cybersecurity Navigating the Digital World
Data Analysis	Storage	4.DA.S.01 Choose different storage locations (physical, shared, or cloud) based on the type of file, storage requirements (file size, availability, available memory), and sharing requirements.	Backing Up Your Code Github

Algorithms & Programming

Collection, Visualization, & Transformation	4.DA.CVT.01 Organize and present collected data visually to highlight comparisons.	"Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
Inference & Models	4.DA.IM.01 Determine how the accuracy of conclusions are influenced by the amount of data collected.	"Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
Algorithms	4.AP.A.01 Compare and refine multiple algorithms for the same task.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
Variables	4.AP.V.01 Create programs that use variables to store and modify grade level appropriate data.	Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
Control	4.AP.C.01 Create programs using a programming language that utilize sequencing, repetition, conditionals and variables using math operations manipulate values to solve a problem or express ideas both independently and collaboratively.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors

	Modularity	4.AP.M.01 Decompose (break down) large problems into smaller, manageable sub problems to facilitate the program development process.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
		4.AP.M.02 With grade appropriate complexity, modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
	Program Development	4.AP.PD.01 Use an iterative process to plan the development of a program that includes user preferences while solving simple problems.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
		4.AP.PD.02 Observe intellectual property rights and give appropriate credit when creating or remixing programs.	Module 5- Cybersecurity Navigating the Digital World Module 8- Writing Your First Program Teamwork and Project Management Strategies
		4.AP.PD.03 Analyze, create, and debug a program that includes sequencing, repetition, conditionals and variables in a programming language.	Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors
		4.AP.PD.04 Communicate and explain your program development using comments, presentations and demonstrations.	Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors

Impacts of Computing	Culture	4.IC.C.01 Give examples of computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.	Module 5- Cybersecurity Navigating the Digital World
		4.IC.C.02 Brainstorm problems and ways to improve computing devices to increase accessibility to all users.	Module 5- Cybersecurity Navigating the Digital World
	Social Interactions	4.IC.SI.01 Develop a code of conduct, explain, and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior.	Module 5- Cybersecurity Navigating the Digital World
	Safety, Law, & Ethics	4.IC.SI.02 As a team, consider each others perspectives on improving a computational product. 4.IC.SLE.01 Discuss the social impact of violating intellectual property rights.	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
5th Grade			
Computing Systems	Hardware & Software	5.CS.HS.01 Model that information is translated into bits in order to transmit and process between software to accomplish tasks.	Module 4- Computer Communication Module 6- Introduction to Robots Module 7- Introduction to Programming Languages
	Troubleshooting	5.CS.T.01 Identify, using accurate terminology, simple hardware and software problems that may occur during everyday use. Discuss problems with peers and adults, apply strategies for solving these problems and explain why the strategy should work.	Module 4- Computer Communication Module 6- Introduction to Robots Module 8- Writing Your First Program Module 9- Moving Your Robot Connecting to Your Wallaby
Networks & The Internet	Network Communication & Organization	5.NI.NCO.01 Model how information is broken down into packets (smaller pieces) and transmitted through multiple devices over networks and the Internet, and reassembled at the destination.	Module 4- Computer Communication Connecting to your Wallaby
	Cybersecurity	5.NI.C.01 Discuss real-world Cybersecurity problems and identify strategies for how personal information can be protected.	Module 5- Cybersecurity Navigating the Digital World
Data Analysis	Storage	5.DA.S.01 Evaluate trade-offs, including availability and quality, based on the type of file, storage requirements (file size, availability, available memory), and sharing requirements.	Backing Up Your Coded Github
	Collection, Visualization, & Transformation	5.DA.CVT.01 Organize and present collected data to highlight comparisons and support a claim.	"Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96

Algorithms & Programming

Inference & Models	5.DA.IM.01 Use data to highlight or propose cause and effect relationships, predict outcomes, or communicate an idea.	"Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
Algorithms	5.AP.A.01 Compare and refine multiple algorithms for the same task and determine which is the most efficient.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter
Variables	5.AP.V.01 Create programs that use variables to store and modify grade level appropriate data.	Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter
Control	5.AP.C.01 Create programs using a programming language that utilize sequencing, repetition, conditionals, event handlers and variables using math operations to manipulate values to solve a problem or express ideas both independently and collaboratively.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter
Modularity	5.AP.M.01 Decompose (break down) large problems into smaller, manageable sub problems and then into a precise sequence of instructions.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter

Impacts of Computing

Culture

5.IC.C.01 Give examples and explain how computing technologies have changed the world, and express how computing technologies influence, and are influenced by, cultural practices.

Module 5- Cybersecurity Navigating the Digital World

Program Development

5.AP.M.02 With grade appropriate complexity, modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.

Module 2- Creating Algorithms (Unplugged)
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter
Writing Functions
for Loops
Creating functions using Void

5.AP.PD.01 Use an iterative process to plan the development of a program that includes others' perspectives and user preferences while solving simple problems.

Module 2- Creating Algorithms (Unplugged)
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter

5.AP.PD.02 Observe intellectual property rights and give appropriate credit when creating or remixing programs.

5.AP.PD.03 Analyze, create, and debug a program that includes sequencing, repetition, conditionals and variables in a programming language.

Module 5- Cybersecurity Navigating the Digital World
Module 8- Writing Your First Program
Teamwork and Project Management Strategies
Module 8- Writing Your First Program
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter

5.AP.PD.04 Communicate and explain your program development using comments, presentations and demonstrations.

Module 8- Writing Your First Program
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter

	Social Interactions	5.IC.C.02 Develop, test and refine digital artifacts to improve accessibility and usability. 5.IC.SI.01 Develop a code of conduct, explain, and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior. 5.IC.SI.02 As a team, collaborate with outside resources (other grade levels, online collaborative spaces) to include diverse perspectives to improve computational products.	Module 5- Cybersecurity Navigating the Digital World Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
	Safety, Law, & Ethics	5.IC.SLE.01 Observe intellectual property rights and give appropriate credit when using resources.	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
	6th Grade		
Computing Systems	Devices	6.CS.D.01 Evaluate existing computing devices and recommend improvements to design based on analysis of personal interaction with the device.	Module 5- Cybersecurity Navigating the Digital World
	Hardware & Software	6.CS.HS.01 Identify ways that hardware and software are combined to collect and exchange data.	Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter
	Troubleshooting	6.CS.T.01 Identify increasingly complex software and hardware problems with computing devices and their components.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
Networks & The Internet	Network Communication & Organization	6.NI.NCO.01 Model a simple protocol for transferring information using packets.	Module 4- Computer Communication
	Cybersecurity	6.NI.C.01 Identify existing Cybersecurity concerns with the Internet and systems it uses. 6.NI.C.02 Explain the importance of secured websites and describe how one method of encryption works.	Module 5- Cybersecurity Navigating the Digital World Module 4- Computer Communication
Data Analysis	Storage	6.DA.S.01 Identify how the same data can be represented in multiple ways.	Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96

Algorithms & Programming	Collection, Visualization, & Transformation	6.DA.CVT.01 Collect data using computational tools and transform the data to make it more useful.	Module 13- Introduction to Variables Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating Functions Using Void Using the Camera Advanced Camera Code Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
	Inference & Models	6.DA.IM.01 Use models and simulations to formulate, refine, and test hypotheses.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating Functions Using Void STEAM Art and Robotics
	Algorithms	6.AP.A.01 Use an existing algorithm in natural language or pseudocode to solve complex problems.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void

Control	6.AP.C.01 Develop programs that utilize combinations of repetition, conditionals, and the manipulation of variables representing different data types.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
Modularity	6.AP.M.01 Decompose problems into parts to facilitate the design, implementation, and review of programs.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
Program Development	6.AP.PD.01 Seek and incorporate feedback from team members to refine a solution to a problem.	Get Hub Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
	6.AP.PD.02 Incorporate existing code, media, and libraries into original programs and give attribution.	Module 2- Creating Algorithms (Unplugged) Module 5- Cybersecurity Navigating the Digital World Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Github

Impacts of Computing		6.AP.PD.03 Test and refine programs using teacher provided inputs.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Teamwork and Project Management Strategies
		6.AP.PD.04 Break down tasks and follow an individual timeline when developing a computational artifact.	
		6.AP.PD.05 Document text-based programs in order to make them easier to follow, test, and debug.	Module 8- Writing Your First Program Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Module 5- Cybersecurity Navigating the Digital World
	Culture	6.IC.C.01 Explain how computing impacts people's' everyday activities.	Module 5- Cybersecurity Navigating the Digital World
	Social Interactions	6.IC.C.02 Identify and discuss the technology proficiencies needed in the classroom and the workplace, and how to meet the needs of diverse users.	
		6.IC.SI.01 Individually and collaboratively develop and conduct an online survey that seeks input from a broad audience. Describe and use safe, appropriate, and responsible practices (netiquette) when participating in online communities (e.g., discussion groups, blogs, social networking sites).	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
	Safety, Law, & Ethics	6.IC.SLE.01 Differentiate between appropriate and inappropriate content on the Internet, and identify unethical and illegal online behavior.	Module 5- Cybersecurity Navigating the Digital World Teamwork and Project Management Strategies
7th Grade			
Computing Svstems	Devices	7.CS.D.01 Evaluate existing computing devices and recommend improvements to design based on analysis of how other users interact with the device.	Module 5- Cybersecurity Navigating the Digital World

Systems

Networks & The Internet

Data Analysis

Hardware & Software	7.CS.HS.01 Evaluate and recommend improvements to software and hardware combinations used to collect and exchange data.	Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
Troubleshooting	7.CS.T.01 Identify and fix increasingly complex software and hardware problems with computing devices and their components.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Using the Camera
Network Communication & Organization	7.NI.NCO.01 Explain how a system responds when a packet is lost and the effect it has on the transferred information.	Module 4- Computer Communication
Cybersecurity	7.NI.C.01 Explain how to protect electronic information, both physical (e.g. hard drive) and digital, identify Cybersecurity concerns and options to address issues with the Internet and the systems it uses. 7.NI.C.02 Identify and explain two or more methods of encryption used to ensure and secure the transmission of information.	Module 4- Computer Communication Module 4- Computer Communication
Storage	7.DA.S.01 Create multiple representations of data.	Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96

Algorithms & Programming

Collection, Visualization, & Transformation	7.DA.CVT.01 Collect data using computational tools and transform the data to make it more useful and reliable.	Module 13- Introduction to Variables Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating Functions Using Void Using the Camera Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
Inference & Models	7.DA.IM.01 Discuss the correctness of a model representing a system by comparing the model' s generated results with observed data from the modeled system.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating Functions Using Void STEAM Art and Robotics Using the Camera
Algorithms	7.AP.A.01 Select and modify an existing algorithm in natural language or pseudocode to solve complex problems.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void

	Control	7.AP.C.01 Develop programs that utilize combinations of repetition, compound conditionals, and the manipulation of variables representing different data types.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
	Modularity	7.AP.M.01 Decompose problems into parts to facilitate the design, implementation, and review of increasingly complex programs.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void
	Program Development	7.AP.PD.01 Seek and incorporate feedback from team members and users to refine a solution to a problem.	Get Hub Teamwork and Project Management Strategies Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Using the Camera

Impacts of Computing

Culture

7.AP.PD.02 Incorporate existing code, media, and libraries into original programs of increasing complexity and give attribution.

7.AP.PD.03 Test and refine programs using a variety of student created inputs.

7.AP.PD.04 Distribute tasks and maintain a project timeline when collaboratively developing computational artifacts.

7.AP.PD.05 Document text-based programs of increasing complexity in order to make them easier to follow, test, and debug.

7.IC.C.01 Explain how computing impacts innovation in other fields.

7.IC.C.02 Relate the distribution of computing resources in a global society to issues of equity, access, and power.

Module 5- Cybersecurity Navigating the Digital World

Module 9- Moving Your Robot

Module 10- Introduction to Engineering

Module 11- Using a Servo

Module 12- Using Multiple Servos

Module 13- Introduction to Variable

Module 14- Digital Sensors

Module 15- Analog Sensors

Module 16- Motor Position Counter

Writing Functions

for Loops

Creating functions using Void

Using the Camera

Github

Teamwork and Project Management Strategies

Module 9- Moving Your Robot

Module 10- Introduction to Engineering

Module 11- Using a Servo

Module 12- Using Multiple Servos

Module 13- Introduction to Variable

Module 14- Digital Sensors

Module 15- Analog Sensors

Module 16- Motor Position Counter

Writing Functions

for Loops

Creating functions using Void

Using the Camera

Github

Github

Module 8- Writing Your First Program

Module 9- Moving Your Robot

Module 10- Introduction to Engineering

Module 11- Using a Servo

Module 12- Using Multiple Servos

Module 13- Introduction to Variable

Module 14- Digital Sensors

Module 15- Analog Sensors

Module 16- Motor Position Counter

Writing Functions

for Loops

Creating functions using Void

Using the Camera

Github

Module 5- Cybersecurity Navigating the Digital World

Module 5- Cybersecurity Navigating the Digital World

	Social Interactions	7.IC.SI.01 Individually and collaboratively use advanced tools to design and create online content (e.g., digital portfolio, multimedia, blog, web page). Describe and use safe, appropriate, and responsible practices (netiquette) when participating in online communities (e.g., discussion groups, blogs, social networking sites).	Module 5- Cybersecurity Navigating the Digital World Get Hub Google Docs Teamwork and Project Management Strategies
	Safety, Law, & Ethics	7.IC.SLE.01 Explain the connection between the longevity of data on the Internet, personal online identity, and personal privacy.	Module 5- Cybersecurity Navigating the Digital World
8th Grade			
Computing Systems	Devices	8.CS.D.01 Develop and implement a process to evaluate existing computing devices and recommend improvements to design based on analysis of how other users interact with the device.	Module 5- Cybersecurity Navigating the Digital World
	Hardware & Software	8.CS.HS.01 Design and refine projects that combine hardware and software components to collect and exchange data.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Using the Camera Advanced Camera Code Github
	Troubleshooting	8.CS.T.01 Systematically identify, fix, and document increasingly complex software and hardware problems with computing devices and their components.	Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Using the Camera Advanced Camera Code Github
Networks & The Internet	Network Communication & Organization	8.NI.NCO.01 Explain protocols and their importance to data transmission; model how packets are broken down into smaller pieces and how they are delivered.	Module 4- Computer Communication



Cybersecurity	8.NI.C.01 Evaluate physical and digital procedures that could be implemented to protect electronic data/information; explain the impacts of hacking, ransomware, scams, fake scans, and ethical/legal concerns. 8.NI.C.02 Compare the advantages and disadvantages of multiple methods of encryption to model the secure transmission of information.	Module 4- Computer Communication Module 5- Cybersecurity Navigating the Digital World
Storage	8.DA.S.01 Analyze multiple methods of representing data and choose the most appropriate method for representing data.	Module 4- Computer Communication Module 13- Introduction to Variables Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions Using the Camera Advanced Camera Code Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96
Collection, Visualization, & Transformation	8.DA.CVT.01 Develop, implement, and refine a process that utilizes computational tools to collect and transform data to make it more useful and reliable.	Module 13- Introduction to Variables Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating Functions Using Void Using the Camera Advanced Camera Code Activity M4 Activity M41 Activity M68 Activity M83 Activity M84 Activity M85 Activity M93 Activity M94 Activity M95 Activity M96

Algorithms & Programming

Inference & Models

8.DA.IM.01 Refine computational models based on the data generated by the models.

Module 13- Introduction to Variables
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter
Writing Functions
for Loops
Creating Functions Using Void
Using the Camera
Advanced Camera Code
Activity M4
Activity M41
Activity M68
Activity M83
Activity M84
Activity M85
Activity M93
Activity M94
Activity M95
Activity M96

Algorithms

8.AP.A.01 Design algorithms in natural language, flow and control diagrams, comments within code, and/or pseudocode to solve complex problems.

Module 2- Creating Algorithms (Unplugged)
Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter
Writing Functions
for Loops
Creating functions using Void
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Advanced Camera Code
Github

Control

8.AP.C.01 Develop programs that utilize combinations of nested repetition, compound conditionals, procedures without parameters, and the manipulation of variables representing different data types.

Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter
Writing Functions
for Loops
Creating functions using Void
Using the Camera
Advanced Camera Code
Github

	Modularity	8.AP.M.01 Decompose problems and sub problems into parts to facilitate the design, implementation, and review of complex programs.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Get Hub Teamwork and Project Management Strategies
	Program Development	8.AP.PD.01 Seek and incorporate feedback from team members and users to refine a solution to a problem that meets the needs of diverse users.	Module 2- Creating Algorithms (Unplugged) Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Get Hub Teamwork and Project Management Strategies
		8.AP.PD.02 Incorporate existing code, media, and libraries into original programs of increasing complexity and give attribution.	Module 2- Creating Algorithms (Unplugged) Module 5- Cybersecurity Navigating the Digital World Module 9- Moving Your Robot Module 10- Introduction to Engineering Module 11- Using a Servo Module 12- Using Multiple Servos Module 13- Introduction to Variable Module 14- Digital Sensors Module 15- Analog Sensors Module 16- Motor Position Counter Writing Functions for Loops Creating functions using Void Github Teamwork and Project Management Strategies

Impacts of Computing

Culture

8.AP.PD.03 Systematically test and refine programs using a range of student created inputs.

8.AP.PD.04 Explain how effective communication between participants is required for successful collaboration when developing computational artifacts.
8.AP.PD.05 Document text-based programs of increasing complexity in order to make them easier to follow, test, and debug.

Module 9- Moving Your Robot
Module 10- Introduction to Engineering
Module 11- Using a Servo
Module 12- Using Multiple Servos
Module 13- Introduction to Variable
Module 14- Digital Sensors
Module 15- Analog Sensors
Module 16- Motor Position Counter
Writing Functions
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Teamwork and Project Management Strategies

Module 8- Writing Your First Program
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Module 15- Analog Sensors
Module 16- Motor Position Counter
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Advanced Camera Code
Github
Module 5- Cybersecurity Navigating the Digital World

Social Interactions

8.IC.C.01 Describe the trade-offs associated with computing technologies (e.g. automation), explaining their effects on economies and global societies, and explore careers related to the field of computer science.

8.IC.C.02 Evaluate and improve the design of existing technologies to meet the needs of diverse users and increase accessibility and usability. Evaluate how technology can be used to distort, exaggerate, and misrepresent information.

8.IC.SI.01 Communicate and publish key ideas and details individually or collaboratively in a way that informs, persuades, and/or entertains using a variety of digital tools and media-rich resources. Describe and use safe, appropriate, and responsible practices (netiquette) when participating in online communities (e.g., discussion groups, blogs, social networking sites).

Module 5- Cybersecurity Navigating the Digital World

Module 5- Cybersecurity Navigating the Digital World
Get Hub
Teamwork and Project Management Strategies

	Safety, Law, & Ethics	8.IC.SLE.01 Discuss the social impacts and ethical considerations associated with Cybersecurity, including the positive and malicious purposes of hacking.	Module 5- Cybersecurity Navigating the Digital World
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