PROGRAM AND SCHEDULE

Daily Schedule (8:30 AM – 4:00 PM)

8:30 – 9:00 AM
• Camper arrival and check-in
• Settling in and choosing a station

9:00 – 9:15 AM
• Morning welcome and overview of the day
• Icebreaker and quick review of programming concepts

9:15 – 10:40 AM
• **LEGO WeDo 2.0**– Building and coding hands-on robotic models

10:40 – 11:00 AM
• Snack break

11:00 – 12:30 PM
• Continuation of LEGO WeDo 2.0 projects
• Optional outdoor activity and testing of robot build

12:30 – 1:30 PM
• Lunch break

1:30 – 2:40 PM
• **Code Monkey & Code Combat Coding Challenge** – Interactive game-based coding and logic puzzles

2:40 – 3:00 PM
• Snack break

3:00 – 3:45 PM
• Project finalization and creative coding challenges

3:45 – 4:00 PM
• Cleanup and dismissal

March 16-20 [Robotics & Coding]

Ages: 5-9

Daily Activities

Camp Themes – Robotics & Coding

Day 1

Theme: *LEGO WeDo 2.0 – Happy Travellers*

Coding Focus: *Code Monkey – Sequencing and Simple Loops*

Day 2

Theme: *LEGO WeDo 2.0 – Animal Kingdom*

Coding Focus: *Code Monkey – Conditions and Advanced Loops*

Day 3

Theme: *LEGO WeDo 2.0 – Fun with Sports*

Coding Focus: *Code Monkey – Game Building*

Day 4

Theme: *LEGO WeDo 2.0 – Dino Park*

Coding Focus: *Code Combat – Basic Syntax, Sequencing, and Algorithms*

Day 5

Theme: *LEGO WeDo 2.0 – Space Exploration*

Coding Focus: *Code Combat – Loops, Conditions, and Variables*

Morning Session: Robotics

In our LEGO WeDo 2.0 sessions, kids dive into hands-on learning that blends creativity and technology. Each day brings a new building challenge as campers design and program robots that move, react, and come to life!

They'll build city vehicles such as cars and trucks, animal-themed robots like lions and elephants, and even sports robots like a kicker and goal keeper and some dinosaurs. To wrap up the week, campers blast off into space exploration, creating and coding their own satellite, space station, and Mars rover.

Through these fun projects, kids learn how machines work, strengthen teamwork skills, and discover how robotics connects to the real world — all while having an amazing time!

Afternoon Session: Coding

In the afternoons, campers jump into CodeMonkey and CodeCombat, two game-based platforms that make coding exciting and accessible. They'll start with the basics — sequencing and loops — and advance to conditions, variables, and algorithms, learning step-by-step how to think like a coder. Each challenge ties into their robotics theme: programming characters to move through cities, designing sports games, and coding space missions.

By the end of the week, campers will gain confidence, creativity, and a strong foundation in problem-solving through the power of code!

Day 1: Robotics & Coding – LEGO WeDo 2.0: Happy Travellers & CodeMonkey Sequencing

Time: 9:00 AM – 4:00 PM

9:00 AM – 9:30 AM: Welcome and Introduction
• Warm welcome and introduction to the "Happy Traveller" theme.
• Discussion: *How do different vehicles help people travel?*
• Overview of the LEGO® WeDo 2.0 kit — exploring motors, sensors, and the smart hub.

9:30 AM – 11:00 AM: LEGO Building & Coding Activity – Vehicles in Motion
• Introduction to transportation and movement.
• Projects: Build exciting travel-themed models such as a car, helicopter, or sports car.
• Learn to code forward and backward motion, rotation, and speed control.

11:00 AM – 11:30 AM: Snack & Outdoor Activity Break
• Kids enjoy a healthy snack and take part in fun outdoor travel-themed games.

11:30 AM – 12:30 PM: Continue LEGO Projects & Testing
• Complete and test travel builds — car, helicopter, or sports car.
• Apply coding to make the vehicles move like real ones and simulate different travel modes.
• Group sharing: *Which vehicle would you travel in and why?*

12:30 PM – 1:30 PM: Lunch Break

- Relaxed lunch and social time.

1:30 PM – 2:30 PM: CodeMonkey Coding Session – Sequencing and Loops

- Introduction to CodeMonkey platform.
- Learn about sequencing through fun character challenges.
- Practice simple loops to repeat actions efficiently.

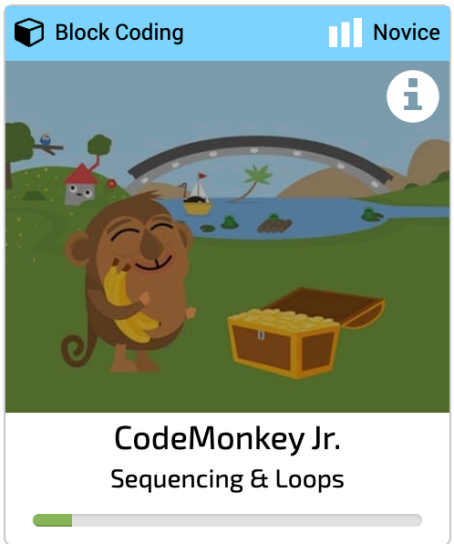
2:30 PM – 2:40 PM: Reflection and Recap

- Discuss what kids learned about sequencing and robotics.

2:40 PM – 3:00 PM: Snack Break

3:00 PM – 4:00 PM: Final Project Time and Wrap-Up

- Finish LEGO builds and coding missions.
- Group sharing and short demo of completed projects.



Day 2: Robotics & Coding – LEGO WeDo 2.0: *Animal Kingdom* & CodeMonkey Conditions

Time: 9:00 AM – 4:00 PM

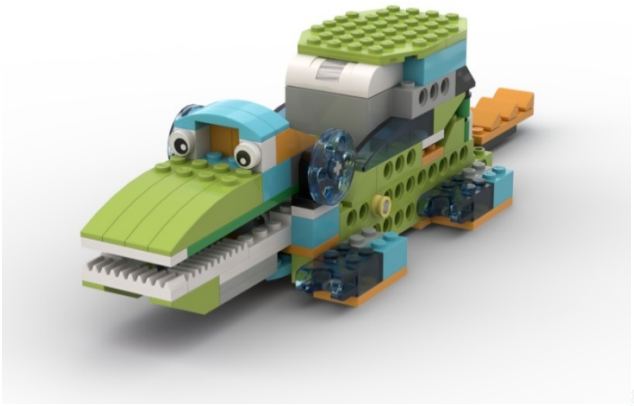
9:00 AM – 9:30 AM: Welcome and Introduction
• Welcome campers and introduce the "Animal Kingdom" theme.
• Discussion: *How do animals move, hunt, and survive in nature?*
• Overview of the LEGO® WeDo 2.0 kit — exploring motors, sensors, and coding tools used to bring animal models to life.

9:30 AM – 11:00 AM: LEGO Building & Coding – Wild Animal Creations
• Introduction to animal movement and behavior.
• Projects: Build and code one animal — frog, crocodile, or lion.
• Learn to program jumping, snapping, or roaring actions using sensors and motor control.

11:00 AM – 11:30 AM: Snack & Outdoor Activity Break
• Kids enjoy a healthy snack and participate in outdoor animal-themed games.

11:30 AM – 12:30 PM: Continue Animal Projects
• Refine animal designs and test coding for realistic movements and reactions.
• Apply loops and timing to simulate how animals behave in the wild.
• Group sharing: *Which animal was your favorite to build, and what makes it unique?*

12:30 PM – 1:30 PM: Lunch Break



1:30 PM – 2:30 PM: CodeMonkey Coding – Conditions and Advanced Loops

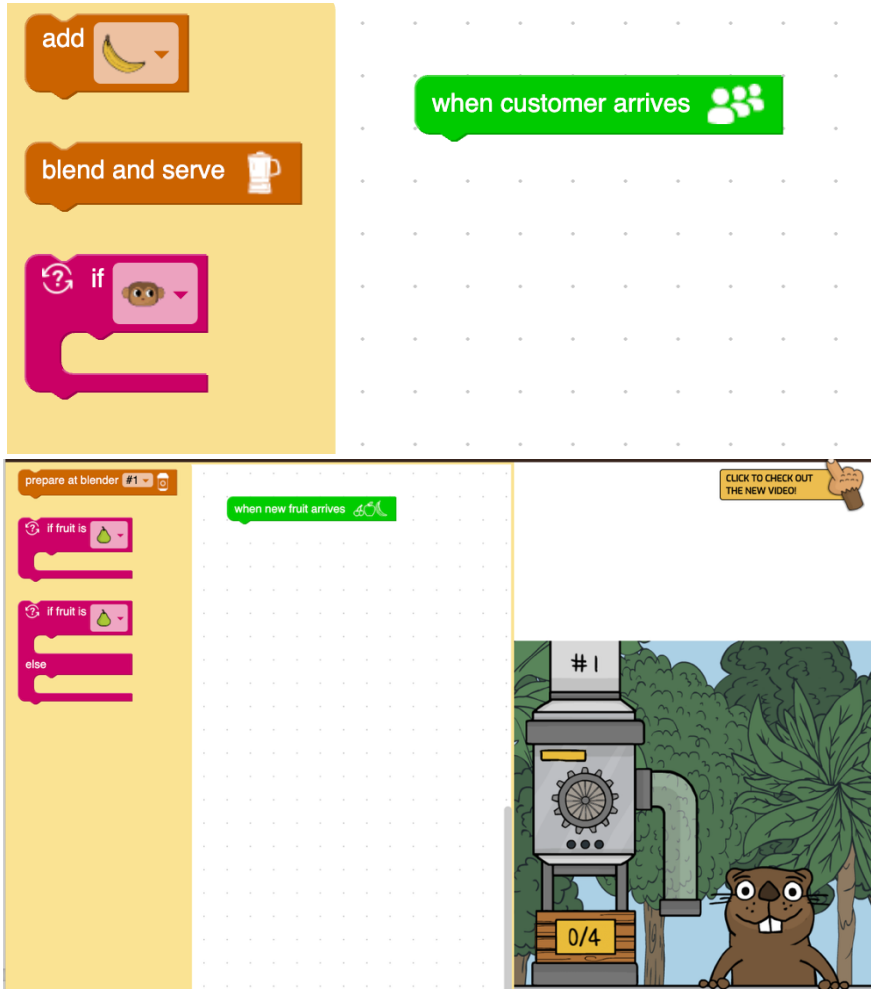
- Learn about conditional logic: *if*, *else if*, *else* statements.
- Apply conditions to make CodeMonkey characters react dynamically.
- Build advanced loop patterns to automate tasks.

2:30 PM – 2:40 PM: Reflection and Recap

2:40 PM – 3:00 PM: Snack Break

3:00 PM – 4:00 PM: Final Project Time and Wrap-Up

- Kids finalize city robot designs and test navigation codes.
- Wrap up with peer feedback and Day 3 preview.



Day 3: Robotics & Coding – LEGO WeDo 2.0: Fun with Sports & CodeMonkey Game Building

Time: 9:00 AM – 4:00 PM

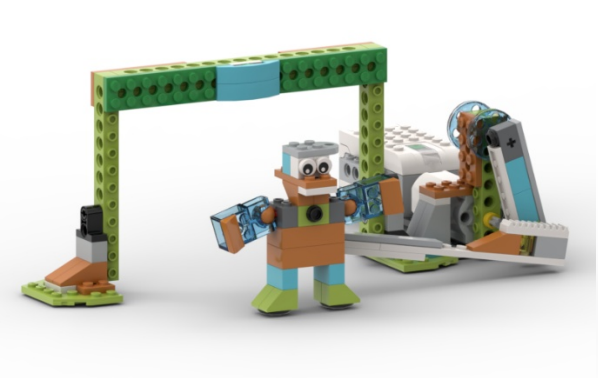
9:00 AM – 9:30 AM: Welcome and Introduction
• Welcome campers and introduce the "Fun with Sports" theme.
• Discussion: *How do robots mimic athletes and sports movements?*
• Overview of the LEGO® WeDo 2.0 kit — motors, sensors, and coding features used to simulate sports actions.

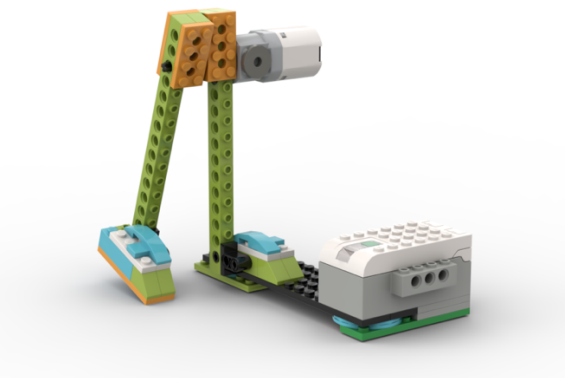
9:30 AM – 11:00 AM: LEGO Building & Coding – Sports Robots in Action
• Introduction to motion, power, and accuracy in robotics.
• Projects: Build and code a kicker and a goalkeeper robot.
• Learn to control timing, strength, and direction to kick or block goals.

11:00 AM – 11:30 AM: Snack & Outdoor Activity Break
• Enjoy a healthy snack and join fun outdoor sports-inspired games.

11:30 AM – 12:30 PM: Continue Sports Projects & Mini Robot Games
• Refine robot designs for speed, precision, and coordination.
• Conduct Mini Robot Games — campers test their kicker and goalkeeper robots in friendly matches.
• Group reflection: *Which design made the best team?*

12:30 PM – 1:30 PM: Lunch Break





1:30 PM – 2:30 PM: CodeMonkey – Introduction to Game Building

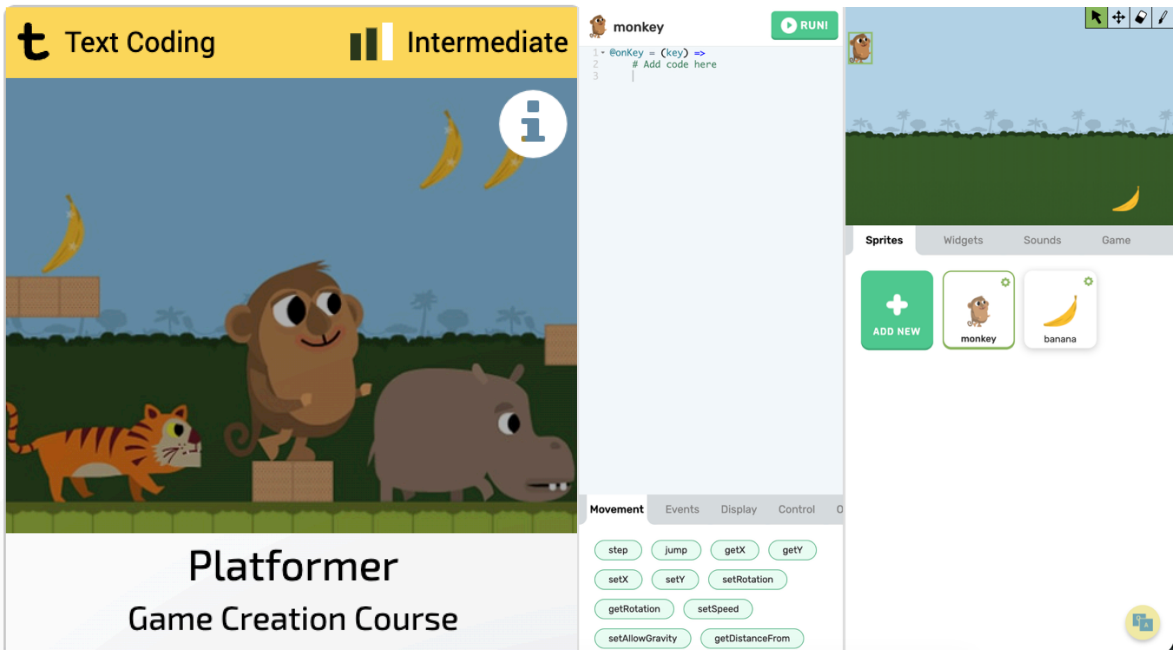
- Learn Game Building Fundamentals.
- Practice sequencing and logic in a game-based environment.

2:30 PM – 2:40 PM: Reflection and Recap

2:40 PM – 3:00 PM: Snack Break

3:00 PM – 4:00 PM: Final Project Time and Wrap-Up

- Kids complete their sports robots or coding levels.
- End-of-day group discussion and Day 4 preview.



Day 4: Robotics & Coding – LEGO WeDo 2.0: Dino Park & Code Combat Game Design

Time: 9:00 AM – 4:00 PM

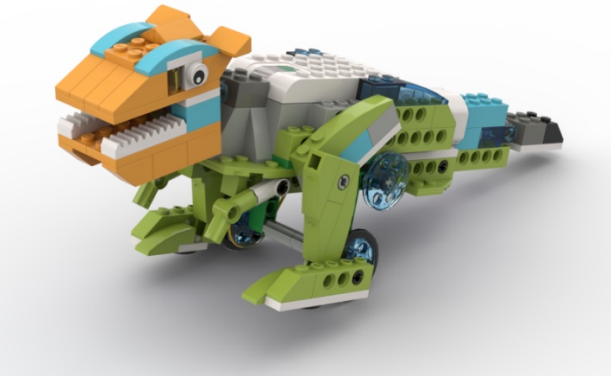
9:00 AM – 9:30 AM: Welcome and Introduction
• Welcome campers and introduce the "Dino Park" theme.
• Discussion: *What were dinosaurs like, and how did they move or survive?*
• Overview of the LEGO® WeDo 2.0 kit — exploring motors, sensors, and coding tools used to bring dinosaurs to life.

9:30 AM – 11:00 AM: LEGO Building & Coding – Dinosaurs Come Alive!
• Introduction to prehistoric creatures and motion in robotics.
• Projects: Build and code a T-Rex, Stegosaurus, or Sauropod.
• Learn how to control movement, roaring sounds, and walking patterns using sensors and motor control.

11:00 AM – 11:30 AM: Snack & Outdoor Activity Break
• Kids enjoy a healthy snack and participate in fun dinosaur-themed outdoor games.

11:30 AM – 12:30 PM: Continue Dinosaur Projects
• Refine and test dinosaur builds for smoother movement and realistic reactions.
• Apply loops, sounds, and timing to make dinosaurs walk, roar, or swing their tails.
• Group reflection: *If you could meet one dinosaur, which would it be and why?*

12:30 PM – 1:30 PM: Lunch Break



1:30 PM – 2:30 PM: CodeCombat – *Basic Syntax, Sequencing, and Algorithms*

- Design interactive game maps in Code Combat.
- Apply loops and conditions to create player actions and outcomes.
- Encourage creativity through story-based problem-solving.

2:30 PM – 2:40 PM: Reflection and Recap

2:40 PM – 3:00 PM: Snack Break

3:00 PM – 4:00 PM: Final Project Time and Wrap-Up

- Complete animal builds and game projects.
- Students present their favorite robot or game.

Day 5: Robotics & Coding – LEGO WeDo 2.0: Space Exploration & Code Combat Conditions, loops and Variables

Time: 9:00 AM – 4:00 PM

9:00 AM – 9:30 AM: Welcome and Introduction

- Theme of the day: Space Exploration and Innovation.
- Discussion on real-world applications of robotics in space.

9:30 AM – 11:00 AM: LEGO Building & Coding – Space Projects

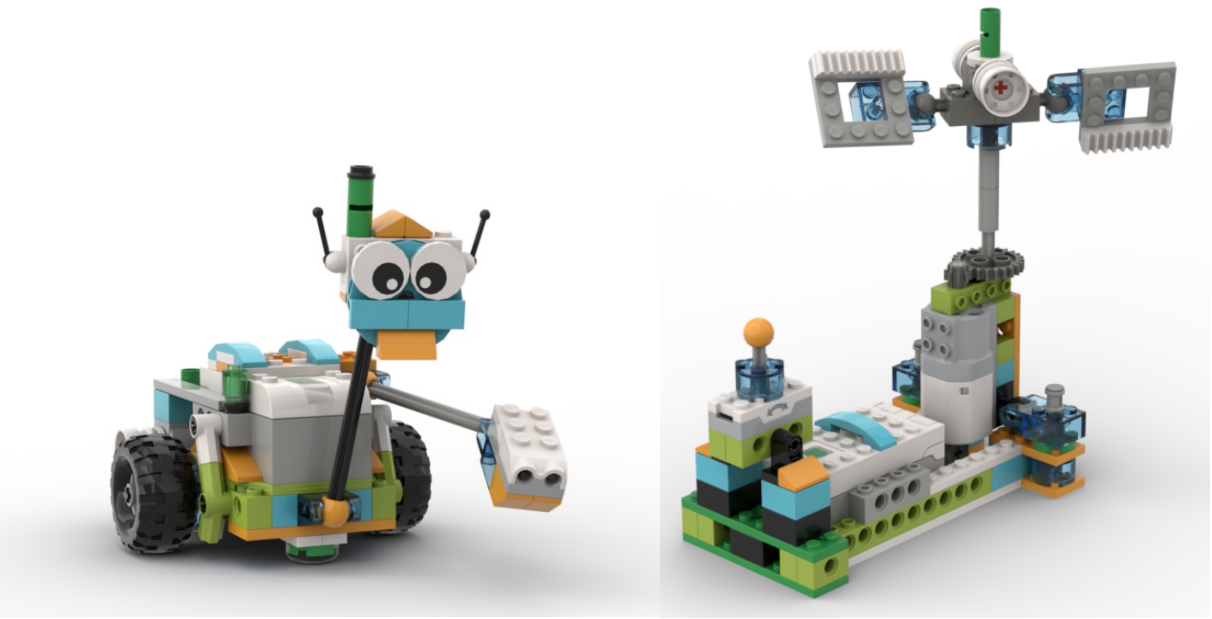
- **Projects:** Build and code a **satellite**, **space station**, and **Mars rover**.
- Simulate data collection, movement, and communication functions.

11:00 AM – 11:30 AM: Snack & Outdoor Activity Break

11:30 AM – 12:30 PM: Continue Space Projects

- Enhance coding to simulate launch sequences and rover exploration.

12:30 PM – 1:30 PM: Lunch Break



1:30 PM – 2:30 PM: CodeCombat – Loops, Conditions, and Variables

- Learn how variables store and manage game data.
- Combine loops and conditionals to automate decision-making in code.
- Final coding challenge: Build a space-themed mission game.

2:30 PM – 2:40 PM: Reflection and Recap

2:40 PM – 3:00 PM: Snack Break

3:00 PM – 4:00 PM: Final Project Time and Camp Wrap-Up

- Present final LEGO space robots and Code Combat missions.
- End-of-camp celebration and certificate distribution.