

Simulink Ramp-Up Resources

This is a sample ramp-up plan for anyone who wants to improve their skill level in the Simulink product family. The suggested activities are grouped by the user's experience level and area of interest.

Audience / Experience	Activity	Training Resource Type	Duration
Beginner	Simulink Overview	<ul style="list-style-type: none"> • Video: What is Simulink? • Video: MBD and SL • Product page • Documentation: Getting started with Simulink 	1 hr
	Simulink Onramp	• Self-paced training	2-3 hrs
	MATLAB Onramp	• Self-paced training	2~3 hrs
	Control Design Onramp with Simulink	• Self-paced training	2 hrs
	Simulink for Controls	• Video: Getting Started with Simulink for Controls	12 min
	Simscape	• Video: Simscape overview	2 hrs
	Getting Started Video	<ul style="list-style-type: none"> • Part 1: Building and Simulating a Simple Simulink Model (8:57) • Part 2: Adding a Controller and Plant to the Simulink Model (5:31) • Part 3: Viewing Simulation Results (6:04) • Part 4: Tuning a PID Controller (2:44) • Part 5: Comparing and Saving Simulation Data (4:30) • Part 6: Managing Your Simulink Model (4:22) • Part 7: Adding Components to Your Simulink Model (6:46) • Part 8: Modeling Continuous and Discrete Systems in One Simulink Model (4:48) 	

		<ul style="list-style-type: none"> • Part 9: Using Templates and Examples (6:20) 	
	Simulink for System and Algorithm Modeling	<ul style="list-style-type: none"> • Public Training 	2 days
Intermediate	Modeling and Simulation Made Easy with Simulink	<ul style="list-style-type: none"> • Video: Modeling and Simulation Made Easy 	48 min
	Stateflow Onramp	<ul style="list-style-type: none"> • Self-paced training 	2 hrs
	Testing Generated Code in Simulink	<ul style="list-style-type: none"> • Public Training 	1 day
	Simscape	<ul style="list-style-type: none"> • Video: Modeling and Simulation of Walking Robots • Example: Double Mass-Spring-Damper in Simulink and Simscape 	
	Low cost hardware connectivity (Arduino, Raspberry Pi and Mobile devices)	<ul style="list-style-type: none"> • Video: Build Something! ML and SL for hardware projects • Arduino Support from Simulink • Documentation: Run on target hardware • 	38 min
	Stateflow for logic driven system modeling (SLSF)	<ul style="list-style-type: none"> • Public training 	2 days
	Simulink 3D Animation	<ul style="list-style-type: none"> • Documentation: Simulink 3D Animation 	
Faculty	Teaching State Machines and Control Logic with Simulink and Stateflow	<ul style="list-style-type: none"> • Video: Part 1(35:24) • Video: Part 2(26:31) • Video: Part 3(25:56) 	Various
	Teaching Mechatronics with MATLAB, Simulink, and Low Cost Hardware	<ul style="list-style-type: none"> • Video: Teaching Mechatronics with MATLAB, Simulink, and Low Cost Hardware(35:43) 	Various
Student	Student competition videos	<ul style="list-style-type: none"> • Simulink Quick Start • MATLAB and Simulink Racing Lounge 	Various
Control		<ul style="list-style-type: none"> • Video: PID Controller Design in Simulink (3:53) 	Various

		<ul style="list-style-type: none"> • Video: Simulink Blocks for Robot Manipulators and Safe Trajectory Tracking Control (2:58) 	
Mechatronics		<ul style="list-style-type: none"> • Mechatronics with MATLAB and Simulink: <ul style="list-style-type: none"> • Part 1: Accuracy, Speed, and Power Consumption • Part 2: Importing Mechanics from CAD Tools • Part 3: Electrical Actuation • Part 4: Modeling and Testing • Part 5: Import mechanics in 30 minutes • Part 6: Inverse Mechanics • Part 7: Feedforward Control • Part 8: PWM of Voltage • Part 9: Bang Bang Control of Voltage • Part 10: Going to Hardware • Part 11: Playing Pinball Just Like Ben Heck 	Various
Robotics		<ul style="list-style-type: none"> • Video: Modeling and Simulation of Walking Robots(21:18) • Camera Calibration with MATLAB(5:51) • Documentation: Get Started with ROS 	Various
Computer Vision		<ul style="list-style-type: none"> • Documentation: Computer Vision With Simulink • Video: Computer Vision Toolbox OpenCV Interface for Simulink(2:41) • Video: Image Processing and Computer Vision in MATLAB and Simulink(40:07) 	Various
Communication	Communication Systems Modeling with Simulink	<ul style="list-style-type: none"> • Public Training 	1 day
	Deploying 5G NR Wireless Communications on FPGAs: A Complete MATLAB and Simulink Workflow	<ul style="list-style-type: none"> • White Paper 	Various

	5G New Radio Design with MATLAB	<ul style="list-style-type: none"> • White Paper 	
		<ul style="list-style-type: none"> • Video: Design Wireless Systems with MATLAB and Simulink(2:57) 	Various