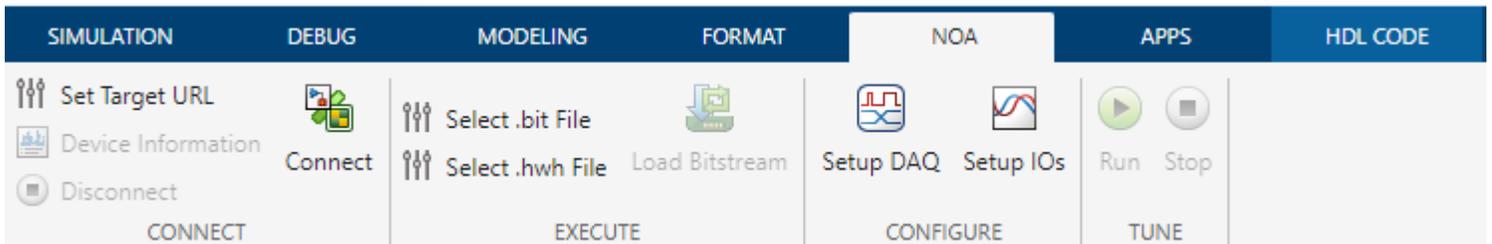




Ready for MATLAB integration

# noa Toolbox

## From Simulink Model to Deterministic FPGA Execution



NOA Toolbox is the model-based deployment layer of the NOA platform.

It enables engineering teams to translate Simulink models into deterministic FPGA implementations on NOA Arch1 without low-level HDL development.

Designed for research laboratories and industrial R&D teams, NOA Toolbox bridges algorithm design and hardware level real-time execution.

### Model-Based FPGA Deployment

- Seamless Simulink-to-bitstream workflow
- Integrated HDL Coder support
- Automated fixed-point conversion support
- Direct generation of FPGA-ready designs

### Runtime Interaction & System Control

- Python-based runtime interaction via PYNQ
- MATLAB-based parameter tuning
- Real-time signal monitoring
- Hardware-level debugging support

### Open and Extensible Architecture

- Direct access to FPGA fabric
- Compatible with custom VHDL/Verilog IP
- Modular IP integration
- Scalable to multi-node systems

### Engineering Impact

- Reduced FPGA development complexity
- Faster validation cycles
- Scalable from lab prototypes to industrial deployment
- Hardware-level performance without black-box constraints



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