

# HOW TO VALIDATE HETEROGENEOUS DESIGNS FAST WITH *HARDWARE-IN-THE-LOOP*

Developers can accelerate testing for designs with AI Engines and programmable logic using hardware-in-the-loop (HIL). See how in 10 key steps.

**REAL HARDWARE.  
REAL SOLUTIONS.**

**RAPID VERIFICATION**

Significantly reduce system-level simulation times by deploying on real hardware (vs. a software-only simulation flow).

**STAY IN MATLAB® OR PYTHON™**

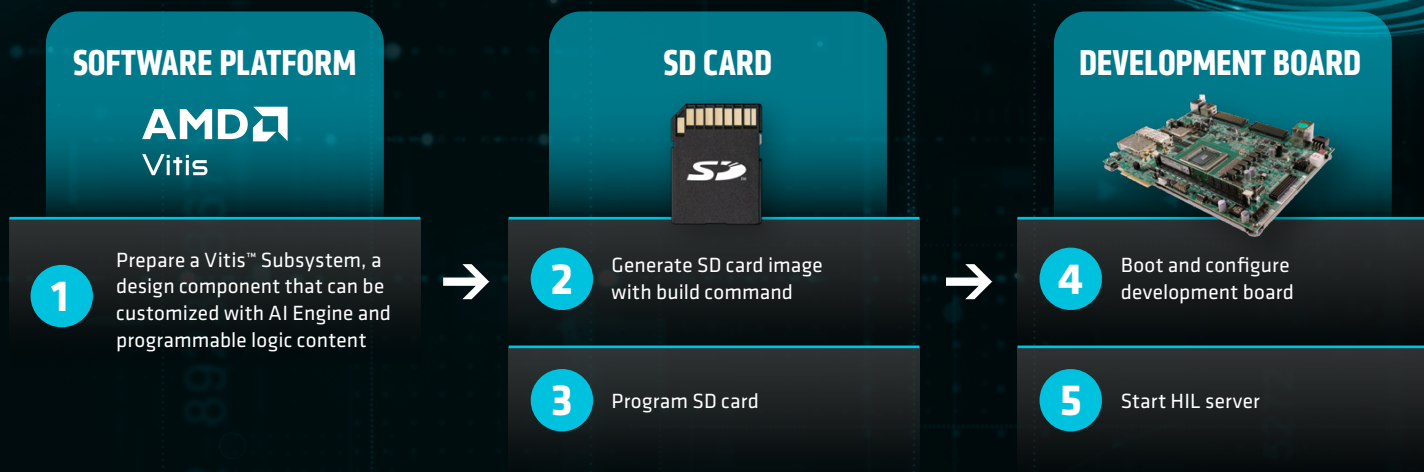
Reuse your existing test data in MATLAB or Python without needing to create an RTL testbench.

**VALIDATE EARLY**

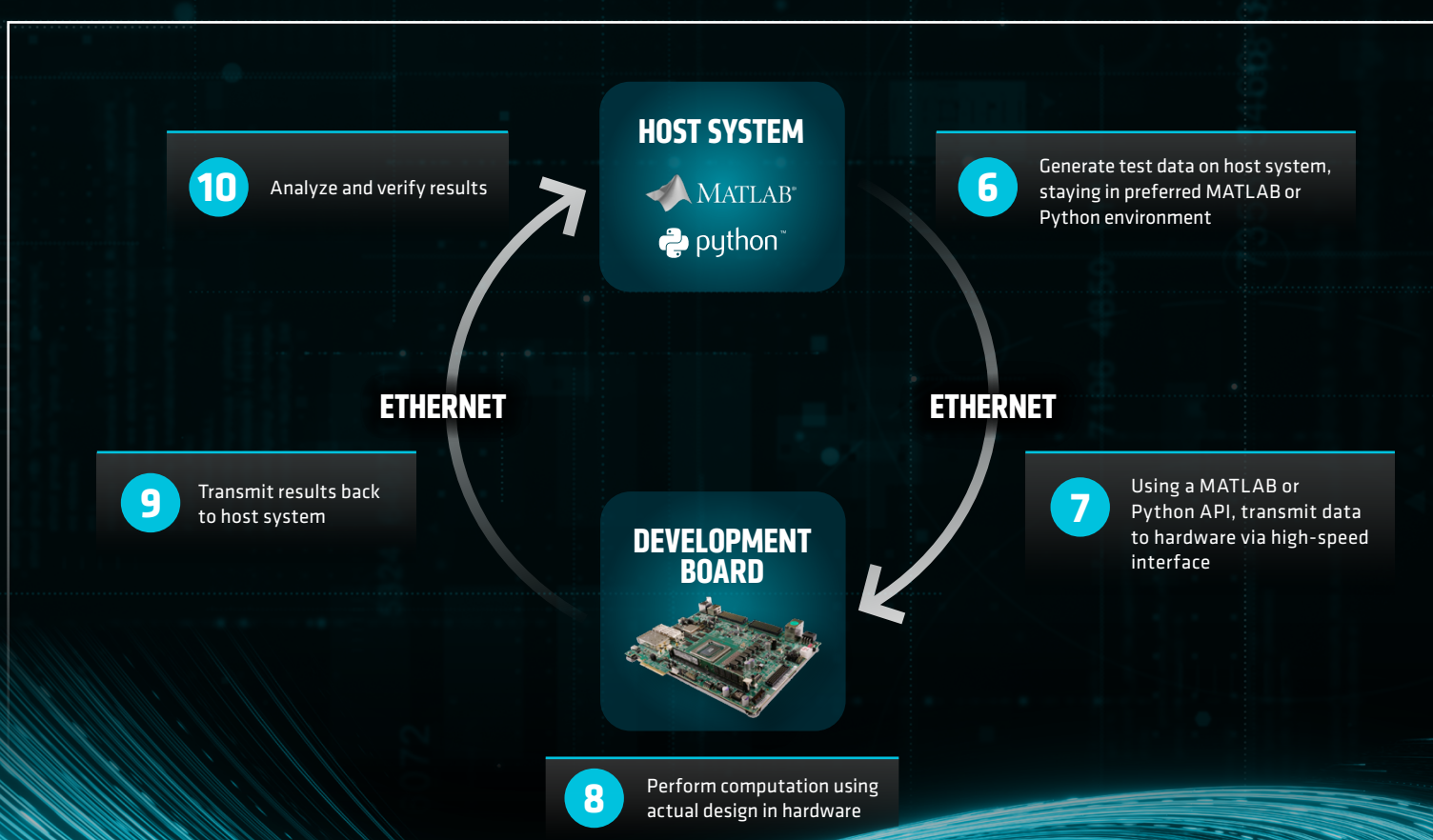
Confirm full-system throughput and behavior early using real hardware execution, even before final hardware is ready.

## Set up HIL using AMD Vitis™ Unified Software Platform

### SET UP



### TEST



## Explore Vitis HIL with the AMD Versal™ AI Core Series VCK190 Evaluation Kit



Supports high-throughput AI inference and signal processing applications from cloud to edge.

[Purchase the VCK190 kit](#)

## READY TO DEMO THE *HARDWARE-IN-THE-LOOP* FLOW?

Explore Adam Taylor's Hackster.io project demonstrating the HIL flow using the Vitis Unified Software Platform.

Walk through the Hackster.io project below.

[Read Now](#)

If you're interested in getting started with HIL today, contact your local FAE or [request assistance](#).

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