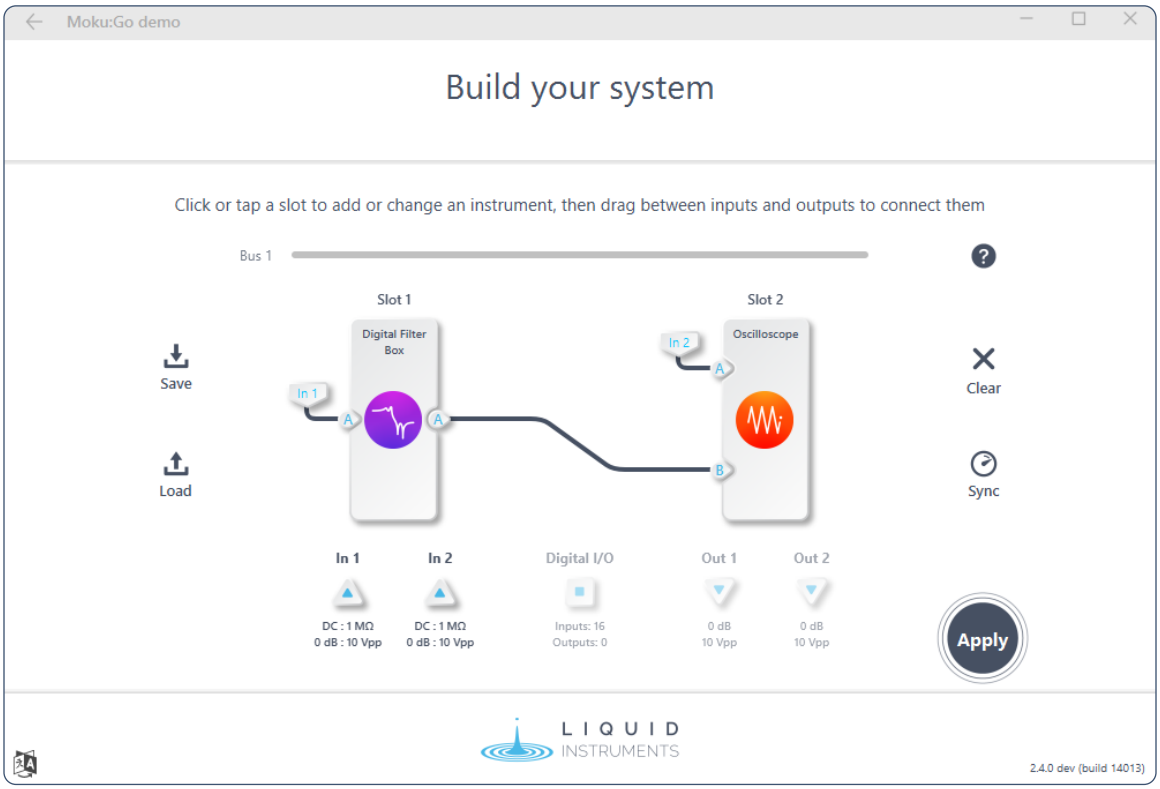
# Multi-Instrument Mode

**Simultaneously deploy multiple instruments on Moku:Go**

Multi-instrument Mode on Moku:Go allows users to deploy two instruments simultaneously to create a custom test station. Each instrument has full access to the analog inputs and outputs along with interconnections between instrument slots. The interconnections between instruments support high-speed, low-latency, real-time digital communication up to 2 Gb/s, so instruments can run independently or be connected together to build advanced signal processing pipelines. Instruments can be dynamically swapped in and out without interrupting adjacent instruments. Advanced users can also deploy their own custom algorithms in Multi-instrument Mode using Moku Cloud Compile.




## Deployable Instruments

- Arbitrary Waveform Generator
- Data Logger
- Digital Filter Box
- FIR Filter Builder
- Frequency Response Analyzer
- Oscilloscope
- PID Controller
- Spectrum Analyzer
- Waveform Generator
- Moku Cloud Compile

## Hardware Highlights

- Xilinx Zynq 7020 SoC
- Optional integrated power supply

## Specification

**Two Analog Inputs**

- 12-bit, 125 MSa/s ADC
- 30 MHz analog bandwidth
- AC or DC coupling, 1 MΩ input impedance
- 10 Vpp, or 50 Vpp input range

**Two Analog Outputs**

- 12-bit, 125 MSa/s DACs
- 20 MHz analog bandwidth
- 10 Vpp output range

**Digital I/O**

- 16-channel DIO at 125 MSa/s
- Support 3.3 V (5 V tolerant) logic level

## Applications

- Automated test sequence
- Mixed domain signal analysis
- System prototyping and simulation
- Closed loop control design
- Optical metrology and spectroscopy
- Control hub for optics, imaging, and other custom-made systems