Analog Deck Demo Board Usage Guide
Subinitial LLC
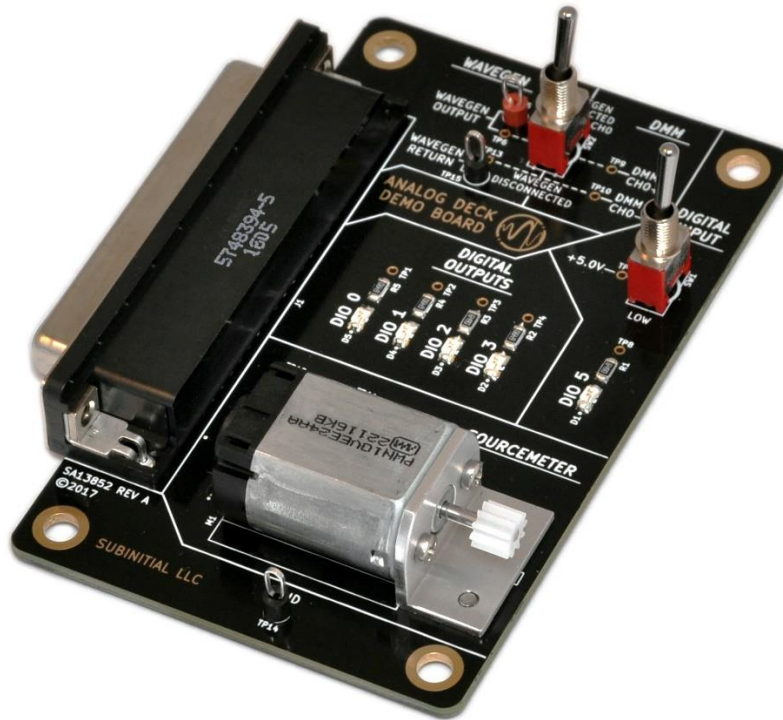

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Overview

This document describes the usage of the Analog Deck Demo. This exercise:

- Ensures proper installation and setup of the software to use Stacks
- Gives the user experience with the Stacks platform
- Provides some example Python scripts that demonstrate typical usage
- Demonstrates some of the features of the Analog Deck

Usage Guide

1. Perform the installation, see *Software Installation* section below.
2. Setup the hardware/equipment, see *Equipment Setup Steps* section below.
3. Open the IDE (likely PyCharm) and navigate to the directory with the downloaded Python scripts that were extracted during *Software Installation*.
   a. In PyCharm, choose *File --> Open…* and select the directory
4. Within the IDE, for each Python script (01 through 07):
   a. Open the Python script.
      i. In PyCharm, in the *Project* pane, double-click on the file to open the script, i.e. *01-dio_blink.py*.
   b. Run the script.
      i. In PyCharm, use *Ctrl-F9* or right-click in the text area and click: *Run '01-dio_blink.py'.*
   c. See what the script does by looking at the console output and/or the Analog Deck Demo Board itself.
   d. Review the script to understand how it works, referencing the in-file comments.
      i. If desired, change the scripts to gain experience and re-run.

Test Preparation

Software Installation

1. Follow the Getting Started with Stacks software guide to install Python, an IDE, and the proper library for using Stacks (library v1.14.0 or later).
2. Download the Analog Deck Demo Board - Demo Python Files from https://subinitial.com/documentation/appnotes
3. Extract the SD00778_Analog_Deck_Demo_Board_Python_Files.zip into a directory.

Equipment Required

1. Analog Deck Demo Board (SA13852)
2. Stacks Core and Analog Deck (SA13729 & SA13730)
3. Stacks Power Supply
4. Network Cable
5. Computer with Ethernet Port
6. Oscilloscope
7. 1 Scope Probe
8. [Optional] DC-62 Extension Cable

Equipment Setup Steps

1. Connect Stacks Ethernet directly to the computer with the Ethernet port
2. Connect the Analog Deck Demo Board to the Analog Deck, either directly or with the DC-62 extension cable
3. Connect the power to the Stacks Core
4. Ensure communication is available on the network between the computer and Stacks. If issues arise, see our Connectivity Troubleshooting Guide.
   a. Stacks default IP address is 192.168.1.49
   b. To test connectivity, in the terminal/command prompt enter "ping 192.168.1.49"