

# Data Acquisition Report

Department / Institution

<b>Script:</b>	acquire_sensor_data.py
<b>Port:</b>	COM3
<b>Baud rate:</b>	9600 bit s <sup>-1</sup>
<b>Test mode:</b>	False
<b>Duration:</b>	60.0 s
<b>Git remote:</b>	<a href="https://github.com/vlust/interview-assignment.git">https://github.com/vlust/interview-assignment.git</a>
<b>Git commit:</b>	58ec9bef8209fa7d6595115be404b474721c9a91
<b>Timestamp:</b>	2025-05-18 22:32:38

## 1. Introduction

A loopback test was performed to validate the data-acquisition script and communication pipeline. By sending a known ramp signal over a virtual serial interface, we verify integrity before deploying to actual hardware.

## 2. Methods

- **Interface:** Virtual serial port (loop://) at 9600 bit s<sup>-1</sup>.
- **Duration:** 3 s
- **Logging:** Timestamped `<timestamp, value>` entries to CSV; buffered I/O to minimize latency.

## 3. Results

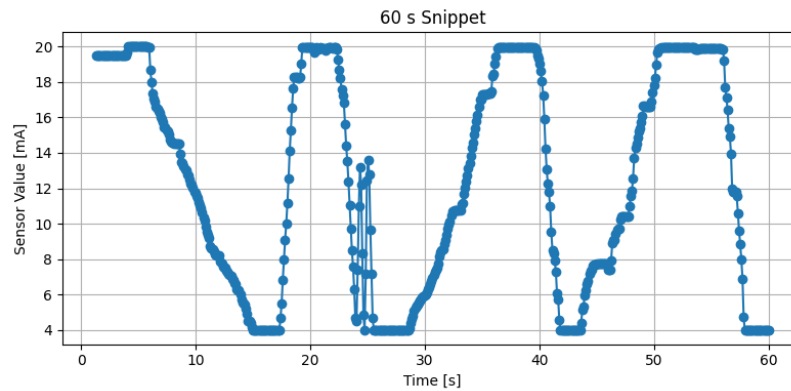


Figure 1: Acquired ramp signal over 60.0s via loopback.