SURFSCAN 6200 SOP for Small Substrates

IMPORTANT: Mount Substrates on a 4" Carrier Wafer

- Use a **drop of water** to mount the substrate onto the 4" wafer.
- Ensure total thickness (**carrier + substrate**) is ~1 mm.

Steps

1. Log In

- **Access Code:** `fab [new password from 2025]`.
- If the keyboard isn't functional, use the **virtual keyboard** on the monitor.

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2. Launch the Software

- Double-click the **SCAN** icon.

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3. Load a Recipe

1. Select **Recipe** > **Load** (top-left corner).
2. Choose:
    - **UCSB GAIN4 0.16-1.6** (for 0.16-1.6 µm).
    - **UCSB GAIN2 1.6-28** (for 1.6-28 µm).
3. Press **OK** (recipe name will display at the top).

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4. Modify Recipe

1. Select **Recipe** > **Save as**, and rename the recipe (e.g., your name/company name).
2. Go to **Recipe/View/Modify** to adjust:
    - **Wafer diameter** for 2"/3" wafers.
    - **Edge exclusion** (exclude areas outside the substrate).
    - Other parameters: **gain, threshold, indexer**, etc.
3. Under **Bin Split**, click **Default Bin** to apply updates.
4. Save the changes.

5. Mount the Substrate

1. Apply a **small drop of water** to the center of a 4" carrier wafer.
2. Position the substrate over the water drop, center it, and ensure it is secure and immobile.

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6. Load the Wafer

1. Place the **4" carrier wafer with the mounted substrate** into the **right indexer cassette** (substrate facing up).
2. Verify the cassette is properly seated.

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7. Scanning

1. On the monitor, select **CASS (Cassette)** and wait for the tool to detect wafers.
2. **To scan:**
   - **Single Wafer:** Select the wafer, click **START** (upper bar), and record results.
   - **Multiple Wafers:** Select **AUTO**, then click **START**.

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8. Completion

1. Once the scan is finished:
   - Press **ENTER** on the small laptop to save data as a **photo**:
     - Location: `Desktop/Local Disk(C)/Users/Public/Public Documentation`.
   - Photos can be accessed/downloaded via the **Nanofab server**.
   - **Note:** A feature to save full scan data will be available in **January 2025**.
2. Click **HOME**, then select **RECIPE/Exit**, and log off.

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9. Log Book

- Record scan details and note any issues in the **Log Book**.

Reminder: Always log off after using the tool!