



Grid Clipping Independence Test Evaluator Checklist – CryoEM Merit Badges

Supervising Staff: _____

Date: _____

Trainee: _____

LN2 handling

- Proper PPE is worn (gloves, goggles, face mask)
- Minimize spills when pouring

Evaluator Notes:

Preparing tools

- Autogrid accessories: C-clips, autogrid rings, buttons, Autogrid forceps, fine-tip forceps, C-clip insertion tool, grid box tool
- Load C-clips into insertion tools.
- Visually confirm that the clip is in the tool.
- Cool down station and tools.

Evaluator Notes:

Clipping Grids

- Clip grids
 - Clip faces right side up
 - Grid centered in the clip
 - Stage rotated to position the loaded tool properly into the clip
 - Tool placed into hole, sitting flat against ring
 - Plunger pushed to eject C-clip
 - Stage rotated back into position to inspect clipping
- Examine each clipped grid before transferring into a box.
- Transfer autogrids into boxes facing the correct direction.
- Maintain LN2 level during clipping.
- Do not reuse tools unless they are warmed and dried first.

Evaluator Notes:

Cleaning Up

- Warm all cold tools.
- Remove aluminum and brass pedestal to warm and dry.
- Dispense of nitrogen from the clipping station appropriately and leave to warm up.
- Store clipped grids in closed boxes in an appropriate puck or transfer to autoloader cassette.
- Return all tools to proper place and leave bench clean.
- Do not leave any clips or clip rings loose in the station or on the bench.

Evaluator Notes: