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# 

# Shipping and Receiving

## Storage cabinets

## Shelf

## Desk

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# Receiving Area and DB Transfer Entry

## Storage Cabinet

## Desks

## Shelf

## Trash

## Computer

For updating databases when shipments are received or sent out

## Gowning area

Room for entry and exit of clean room

### Gowning storage

Contains hair nets and shoe covers

Cubbies for personal net/cover storage

### Lab coat rack: add to layout?

Coat rack with hangers for lab coats

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# Module Wirebonding

## Hesse Bondjet BJ820 Wirebonder

## Winrebonder table

Table that serves as workspace for preparing modules for wire bonding

Shelf space for bonder tooling under table

## Modules to be bonded and to be repaired

Cabinet for module storage. Needs module storage racks.

Stores modules that need to be wire bonded, and modules that have been pulled and need repair.

## OGP

Avant 600 Zip Optical Gaging Table

Made by Optical Gaging Products Inc.

Note: model obsolete. Other labs should acquire newer version.

## OGP table & computer

Workstation for OGP operation

Has OGP controller and joystick

Has OGP computer

## Shelf

General storage shelf

## Granite Table with Stereoscope

Cuda 1-150 fiber optic illuminator

Leica StereoZoom 4 stereoscope

## Pull Tester and Microscope Computer

Royce 610 Bond Tester

Computer and monitor for controlling microscope

## Microscope

X-Y table

Nikon Stereoscope

Moticam 5 Digital Microscope Camera

Mitutoyo Digital Readout

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# Module Parts Storage and Module Plating

## Sensors

Cabinet for storing sensors

## Base plates

Cabinet for storing base plates

## Tested PCBs

Cabinet for storing PCBs that have already been tested

## Assembly Tools

Cabinet for storing assembly tools

## Work Bench for Shipping Prep and General Purpose

Workbench for preparing and packing finished modules

Lower shelf space for shipping boxes and carrier plates

## Granite Table

Height Gauge

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# Module Fabrication

## Printer

## Module Curing Cabinet

Cabinet for storing carrier plates under vacuum for curing.

Vacuum supply manifold on wall next to cabinet.

Vacuum line feedthroughs into cabinet for curing.

## Gantry

### Aerotech Gantry AGS10000 0.75 x 0.75 meter

Rotational stage and mount to ATS100 - ADRS-100

Z axis stage ATS100

Other labs should consider a 1m x 1m gantry

Camera

Fixture for Glue Syringe

Vacuum supply and distribution system on lower shelf

## Gantry Rack

### Computer

A3200 Software and Labview software

Monitor, mouse, keyboard

Gantry Joystick

UPS

Power supply and interface for vacuum system

Aerotech A3200 Npaq Drive Rack Gantry Controller

EFD Ultimus V High Precision Dispenser (for glueing)

Gantry E-stop switch

Vacuum gauge

## Glue Table

### Shelves

Glue Preparation Supplies

## Tool Chest

## Module Parts for Weekly Build Plan; Dry Run Parts

Stocked weekly with sensors, base plates, and PCBs

Contains dummy parts for dry runs

## Gantry Prep Table; Carrier Plates on Lower Shelf

### Computer

For updating module & part databases.

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# Module Testing

## Cold Box Desk

### Computer

For controlling cold box & Updating test database.

## Cold Box

For multi-module thermal cycling

## Rack

Cold Box power supply and components

## Untested PCBs

Cabinet for storing new PCBs that haven’t been tested

## Rack Remove from general layout

## Encapsulation Desk

## Encapsulation Gantry

Gantry model?

Note that other labs would get newer version

## Encapsulation Curing Cabinet

Cabinet for curing modules that have been encapsulated.

## Problem Modules

Cabinet for storing problematic modules

## Modules for Testing

Cabinet for storing modules to be tested

## Testing Stations

### Clamshells

### Shelves

## Local Server and Backup Rack

# External Equipment

## Air Drier

## Chiller