

# Printable Electronics Equipment List

Equipment code	Equipment	Model	Max Substrate size	Additional Details
02TAM	Tamarack Proximity Mask Aligner	152	12" Substrate	4" 6" 8" Square Substrates can be accommodated.
01SUS	Suss Microtec Coating System	12RC	9" Square, 12" Round	Chuck Sizes for 4" 6" and 8".
02BRE	Brewer Spin Coater	200FX	12" Substrate	Resist Coater
01HOT	Brewer Hot Plate	M10	12" Substrate	Nitrogen Purge configured.
03BRE	Brewer Spin Developer	200FX	12" Substrate	Spray and Puddle Develop
04BRE	Brewer Spin Etcher	200FX	12" Substrate	Au Etch and others can be added.
01DWL	Mask Writer DWL	DWL66FS	8" Substrate	4mm&20mm write Heads (1 micron and 5micron resolution)
01LAS	Laser Pro	Sprit GE		Laser Scribe (not ablation)
01LIT	Litrex	120L	370 x 470mm	Inkjet Printer system DPN capability
01MRC	MRC Sputter Tool	MRC 603	12" Substrate	Configured to Al, Ti, Au and ITO
01FAS	Wet Etch Bench 1 Acid	FAST_CPI_ACID 1	12" Substrate	Au/Ti/Al/ITO Etchants. 2 Heated Baths. With dump rinse
02FAS	Wet Etch Bench 2 Solvent	FAST_CPI_SOL 1	12" Substrate	With dump rinse
03FAS	Wet Etch Bench 3 Alkali	FAST_CPI_ALK 1	12" Substrate	With dump rinse
01SUN	Plastic to glass Laminator	TMS22SF	450 x 550mm	Not heated chuck
02LAU	Laurell Spin Processor	WS 400	4 "	Manual Dispense
05BRE	Brewer Spin Bake Unit	100CB	6" Substrate	Manual Dispense
01PLA	Plasma Lab	800 Plus	12" Substrate	RIE/ Plasma Etch
01PLQ	Plasma Quest Thin Film In Line System	ILH 550	12" Substrates	Hi rate, low stress Al and ITO Capability
01M3D	Optomec	M3D300CE	12" Substrates	Aerosol Jet Print (ultrasonic and pneumatic atomiser)
01RKK	RK Rotary Coater		R2R	Reverse Graue/ Slot die coating
06BRE	Brewer Spin coater 12"	200FX	12" Substrate	Resist Coater, Dual Drain.
02HOT	Brewer Spin CEE M10	M10	12" Substrate	Nitrogen Purge configured.
07BRE	Brewer Spin coater 12"	200FX	12" Substrate	Resist Coater, Dual Drain.

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03HOT	Brewer Spin CEE M10	M10	12" Substrate	Nitrogen Purge configured.
01MOR	Moorfield Evaporator		4" Substrate	Thermal Evaporation system
02MOR	Moorfield MiniLab system		up to 8" Substrate	Can be configured as Evap or Sputter system
01SCS	Parylene Coater	Speciality Coating Systems	6" Substrate	Deposition System
01PE100	PE100 Etcher	PE100		O2 and Ar gas supplied
01MYC	Miyachi Bonder	Emerald 25		Bonder (note: not owned by PETEC)
01NAN	Nano-master Glass Cleaner	LSC4000	12" Substrate	Brush clean and megasonic
01ORB	Orbotech	FPI-7099M	370 x 470mm	Defect detection and review on patterned substrates 1-5 um
01HIT	Hitachi SEM	S3700		EDAX enabled, additional ion beam polishing system available (note: this is not a focussed ion beam system)
01DEK	Veeco Dektak Stylus Profiler	DEKTAK 8		0- 1mm 0.1nm resolution
02WEN	Wentworth Semi Auto Prober - Electrical parameter test	300S	200mm heated chuck	Linked to Keithley 4200 SCS running ACS
01AFM	Nanoman Atomic Force Microscope	Veeco		Tapping mode AFM with EFM (SKP) facility
01CCI	Taly-surf Optical Interferometer	CCI 6000		0.1 Angstrom resolution in Z
01FIL	Filmetrics Automatic Thin Film Mapping	F50-300	12"	
01NIK	Nikon Optical CD measurement	Nikon L300		Line width measurement to 5.0um. Fluorescence filter cubes. DIC. X-polarisers. Auto XY stage.
01LOT	LOT Oriel Contact angle measuring apparatus	CAM200	2" substrate	
01KPT	KP Technology Kelvin Probe System		1" substrate	
01SOL	Newport Spectra Solar Simulator	ORIEL 93194	8"	Class A
01BOT	Bo-test OLED/OPV test system	LIV 091002	2"	IVL testing for OPV and OLED devices

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01TAM	Lithography Stepper (COMING 2012)		8", 12" and Gen II	Alignment +/- 1.0um.
01LACE	SSL development line		4", 6", 8"	Integrated Spin and slot die coating in Nitrogen environment, Metal and Organic deposition and Encapsulation
01AUR	Aurion Dry etch	LIV 091002	8", 12" and Gen II	Cassette to Cassette two chamber load lock
03HOT	Brewer Spin CEE M10	M10	12" Substrate	Nitrogen Purge configured
01MUE	CD and Overlay		8", 12" and Gen II	Auto measurement of CD and over layl to 1.0 um
01SOL	Coat Bake Developer Cluster Tool		8", 12" and Gen II	Cassette to cassette Resist coating , developer, EBR Hot and Cool Plates
02SOL	Wet Etch and Cleaning Cluster Tool (COMING 2012)		8", 12" and Gen II	Cassette to cassette Spray etch and Clean
01 SCT	Inline Vertical Sputter (COMING 2012)		8", 12" and Gen II	4 targets TBD
01REO	Rheometer	AR1500		
01FTI	FTIR	Nicolet IS10		ATR (Ge and ZnSe); transmission and reflectance accessories available.
P1223	Roll-to-Roll Sputter Coater	Optilab	Max web width 400mm Max coating width 350mm	Three sputter sources: Single planar, Dual Planar and Dual Rotary.
P1209	MBraun Glovebox		4"	Inorganic Thermal Evaporation and Epoxy Encapsulation
P1191	Ellipsometer	Jobin Yvon MM16		
P1152	UV/VIS Spectrophotometer	Evolution 600		190-900nm
P1146	UV/VIS/NIR Spectrophotometer	Cary 5000		175-3300nm

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P1188	Particle Guard Portable Surface Particle Counter	PG-01		Detection Limit 0.5um
	Dole/Teknek Web cleaner		Upto 400mm web width	
	Mocon Aquatran WVTR Measurement Equipment	Aquatran	100mm x100mm	3 Modules Measures to 5x10 <sup>-4</sup> g/m <sup>2</sup> .day
01DSC	TA Instruments Differential Scanning Calorimeter	Q20		Ambient to 600°C
01TGA	TA Instruments Thermogravimetric Analyser	Q50		Ambient to 700°C
01DIM	Dimatix printer	DMP 2800	210 x 325 mm substrate	10 and 1 pl (picolitre) drop size