

Printer Benchmarking

Product Name	Cost [\$]	Size [mm x mm x mm]	Print Speed [mm/s]	User Review Score	Energy Requirements(max)	Print Resolution [microns]	Total
CR-10	440.00	300x300x400	200	3.9/5	360W	100	0
Anet-A8	171.00	220x220x240	100	3.5/5	252W	100	-1
Pura 3	750.00	250x210x210	200+	N/A	240W	50	0
Anet-A6	175.00	220x220x250	100	3.5/5	240W	100	-1
FT5 Folger Tech	500.00	740x500x540	N/A	4.1/5	480W	50	-1
Hyrel System 30M	5000.00	890x410x790	N/A	4.5/5	750W	10	-1

Legend

Color	Value
Green	+
Yellow	0
Red	-
Blue	Not Available

Solar Panel Benchmarking

Name / Part # / Model #	Cost [\$]	Power [Watt]	Voltage [V]	Current [A]	Chemistry	Size (L x W x H) [in]	Weight [lbs]	Warranty [years]	Total
Hanwha Solar SF220-30-P240L	131.04	240	24+	x	Polycrystalline	39.37 x 1.77 x 65.04	46.2	25	1
Canadian Solar CS6K-300MS	183	300	32.5	9.24	Monocrystalline	39.1 x 1.57 x 65	40.1	x	3
Renogy RNG-100D	119.99	100	18.9	5.29	Monocrystalline	47.3 x 21.3 x 1.4	16.5	5	1
Renogy RNG-160DB-H	299.99	160	18.9	8.38	Monocrystalline	59.1 x 26 x 0.08	6.2	5	0
Dokio DSP-100M	109.99	100	18.9	5.29	Monocrystalline	46.2 x 20.8 x 1	15.5	5	1
Mighty Max ML-S-150WM	167.95	150	17.7	8.47	Monocrystalline	39.5 x 39 x 1.5	25.1	1	0

Battery Benchmarking

Name	Cost [\$]	Chemistry	Nominal Voltage [V]	Charge Current [A]	Amp Hours	Dimensions [mm]	Weight [kg]	Waterproof	Total
iTECH120	1,199.00	Lithium	12.8	18	120	330 x 173 x 215	11	no	0
B00BSEPJM6	69.98	Lead-Acid	12	10.5	35	197 x 132 x 181	22.5	yes	2
12CRV110	248.00	Lead-Acid	12	N/A	110	330 x 240 x 171	60	yes	0
12CRV55	185.00	Lead-Acid	12	N/A	55	299 x 138 x 237	37	yes	1
SB35	449.99	Lithium	12.8	35	35	175 x 104 x 165	10	N/A	2*

Pellet Extruder Benchmarking

Product Name	Has a mount design	Accepts Grounds	Compactness	Complete Solution	Cost TBD	Total
RepRap	no	no	not compact	no	~500	-2
Thing 3032188	yes	yes	compact	no	~500	3
Thing 2975262	yes	yes	compact	no	~500	3
Direct 3D	yes	yes	compact	yes	2500	3*
RobotDigg	no	yes	not compact	yes	299	1
manorxyz	yes	yes	compact	no	326	3

Laser Module Benchmarking

Product Name	Base Cost [\$]	Type	Size (L x W x H) [mm]	Weight [lb]	Optical Power Output	Current [A]	Voltage [V]	Total
Endurance 8W Diode Laser Module	595.00	Solid State	95 x 50 x 50	>0.5	8000mW +/- 15%	4-5A	9-16V DC	2
High Power 2.5W Blue Diode Module	71.25	Solid State	80 x 40 x 40	~0.5	2500mW	>2A	12V	2
Sunwin 2W Laser Engraver Module	170.00	Solid State	50 x 50 x 100	2	2W	<3A	12V	0
Blue Purple Laser Module with TTL Control	30.66	Solid State	33 x 33 x 65	N/A	500mW	<2A	12V	3
Hyrel Modular Laser Head	1000.00	Solid State	102 x 102 x 153	1	4W	N/A	N/A	-1

Drill/Dremel Benchmarking

Product Name	Cost [\$]	Size [mm]	Working Area [mm]	Electrical Requirements	Total
Tabletop CNC	235.99	400 x 330 x 240	300 x 180 x 40	AC Input: 110-240V / 5.6A Power Supply: 24V	3
All-In One Market Solution	2799.00	530 x 555 x 480	250 x 235 x 165	AC Input: 100-240V / 5A / 320w max.	-1
DIY CNC Dremel Tool	700.00	533 x 533 x 356	305 x 305 x 152	N/A	0

Mobile Solution Benchmarking

Product Name	Base Cost [\$]	Type	Size (L x W x H) [cm]	Weight [lb]	Load Capacity [lb]	Casters	Total
Rubbermaid Convertible Utility Cart	529.00	Convertible/Collapsible Cart	114.3 x 60.96 x 88.9	52	400	Non-marking 5" casters; 2 lockable swivel, 2 rigid	-1
ULINE Utility Cart w/Pneumatic Wheels	285.00	Fixed Cart	114.3 x 63.5 x 93.98	67	500	8" pneumatic casters; 2 swivel, 2 rigid	-1
Luxor WSCC-2 Two Shelf Collapsible Metal Utility Cart	168.00	Collapsible Cart	85.73 x 49.53 x 100.33	28	200	4" TPR swivel casters; 2 with locking brakes	2
Ironon 220-Lb. Steel Service Cart	29.99	Sturdy Cart	78.7 x 40.6 x 84.5	22	110/shelf	4" nonmarking, smooth-rolling casters (2 swivel, 2 fixed) for easy maneuvering	2
Pelican 1660 case	314.95	Pelican Case	71.6 x 49.9 x 44.8	34.16	350.1	N/A	0
Steel Utility Cart With Folding Sides	115.00	Sturdy With Removable Sides	81.28 x 43.18 x 21.59	40	400	Pneumatic: 10 inch diameter x 3 inch W tires and heavy-duty reinforced axles	1