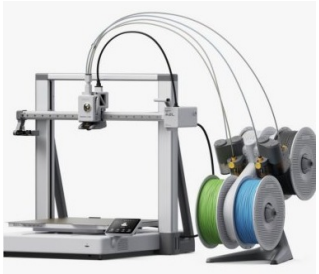
3D printing ferma: FDM xaridlari

Filament bilan bosadigan printerlar va ularga kerak bo‘ladigan hamma narsa: rasm, aniq model, soni, narxi va qayerdan olinishi. Xonaning raqamlangan chizmasi oxirgi sahifada.







Jami xarid

237 649 000 so‘m

Printerlar	**171 600 000**	Filament — boshlang‘ich zaxira	**6 900 000**
Quritish va saqlash	**12 924 000**	Ehtiyot qismlar va asboblar	**14 925 000**
Mebel (FDM zonasi)	**17 600 000**	Ventilyatsiya	**2 500 000**
Ferma boshqaruvi	**11 200 000**		

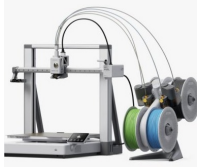
Narxlar so‘mda, Toshkent, 2026-yil noyabr holatiga. Xorijdan keladigan uskunalar narxi rasmiy narx × 1,45 (yetkazish va bojxona bilan); “mahalliy” — Toshkent do‘konlari bo‘yicha taxmin.

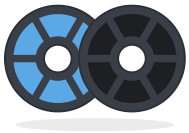
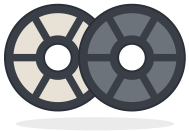
“foto” belgili rasmlar ishlab chiqaruvchining rasmiy sahifasidan olingan (Bambu Lab, Elegoo, Snapmaker); qolganlari chizma ko‘rinishda. Elektr montaji, konditsioner, o‘quv zonasi va bo‘yash zonasi bu ro‘yxatga kirmaydi — ular saytdagi kalkulyatorda.

FDM: nima olinadi

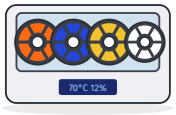
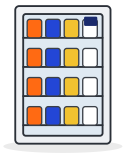
Jami
237 649 000 so‘m

4 × Bambu Lab P2S Combo, 4 × A2L Combo, 2 × H3C Combo, filament zaxirasi, ehtiyot qismlar, mebel, ventilyatsiya va ferma boshqaruvi.

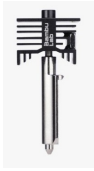
	Printerlar		Soni	Narx, so‘m	Jami, so‘m
1		**Bambu Lab P2S Combo** P2S + AMS 2 Pro. Yopiq CoreXY, 256 × 256 × 256 mm; ustida 4 rangli AMS 2 Pro (quritish bilan). PLA, PETG, TPU, ASA. Ikki qavatli stolning yuqori qavatida. bambulab.com ↗ foto	4 dona	12 500 000	**50 000 000**
2		**Bambu Lab A2L Combo** A2L + AMS Lite. Ochiq (bedslinger) printer, pastki qavatda; AMS Lite 4 rang. Bir rangli PLA/PETG seriya. bestbuy.com ↗ foto	4 dona	8 900 000	**35 600 000**
3		**Bambu Lab H3C Combo** AMS 3H bilan. Katta yopiq printer: ASA/ABS, PA6-CF, yirik detallar. Alohida past stolda (H3C stoli). bambulab.com ↗ foto	2 dona	43 000 000	**86 000 000**
				Printerlar: jami	**171 600 000**

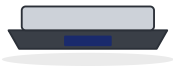
	Filament — boshlang‘ich zaxira		Soni	Narx, so‘m	Jami, so‘m
4		**Bambu PLA Basic, 1 kg (RFID)** Oq, qora, kulrang va rangli; 4+ g‘altakda chegirma. bambulab.com ↗	34 kg	100 000	**3 400 000**
5		**Bambu PETG HF, 1 kg** Mustahkam, issiqqa chidamli detallar. bambulab.com ↗	11 kg	100 000	**1 100 000**
6		**Bambu ASA, 1 kg** Ko‘cha uchun, UV ga chidamli. Faqat yopiq printerlarda (P2S, H3C). bambulab.com ↗	5 kg	200 000	**1 000 000**
7		**Bambu TPU 95A HF, 1 kg** Yumshoq, egiluvchan detallar. bambulab.com ↗	2 kg	250 000	**500 000**
8		**Bambu PA6-CF, 1 kg** Uglerod tolali neylon, faqat H3C (qattiq soplo). bambulab.com ↗	2 kg	450 000	**900 000**
				Filament — boshlang‘ich zaxira: jami	**6 900 000**

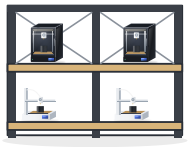
Quritish va saqlash

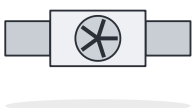
			Soni	Narx, so‘m	Jami, so‘m
9		**SUNLU FilaDryer S4** 4 g‘altak, 70 °C gacha. PETG, TPU, PA ni bosishdan oldin quritish. Rasmiy $129.99. sunlu.com ↗	2 dona	2 262 000	**4 524 000**
10		**Quruq filament shkafi 1200 × 450 × 2000** Mebelchiga buyurtma: LDSP 16, o‘rta to‘siq, 7 qavat (12 polka), alyumin ramkali oynali 2 eshik, EPDM zichlagich, silikagel, 2 gigrometr. 98 g‘altak sig‘adi. Ustaga buyurtma	2 dona	4 200 000	**8 400 000**
				Quritish va saqlash: jami	**12 924 000**

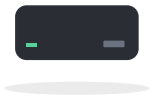
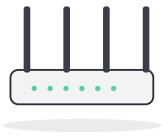
Ehtiyot qismlar va asboblar

			Soni	Narx, so‘m	Jami, so‘m
11		**Bambu HotEnd Hardened Steel 0,4 mm (P2S)** FAH023/FAH060. Zaxira va abraziv filament uchun. Rasmiy $20.99. fbrc8.com ↗ foto	3 dona	365 000	**1 095 000**
12		**Bambu HotEnd Hardened Steel 0,6 mm (P2S)** FAH024/FAH061. Katta va tez bosma uchun. fbrc8.com ↗ foto	2 dona	365 000	**730 000**
13		**A2L hotend 0,4 / 0,6 mm** Zaxira, Bambu do‘konidagi A2L ehtiyot qismlari. Toshkent, mahalliy do‘kon foto	3 dona	300 000	**900 000**
14		**H3C zaxira PrintTool** Narxi e’lon qilinmagan — taxminiy. bambulab.com ↗ foto	4 dona	900 000	**3 600 000**
15		**Bambu Textured PEI Plate (P2S, FAP033)** Tez almashtirish uchun ikkinchi plita. bambulab.com ↗ foto	4 dona	400 000	**1 600 000**
16		**Textured PEI plita — A2L / H3C o‘lchami** Har printerga zaxira plita. bambulab.com ↗ foto	6 dona	500 000	**3 000 000**
17		**PTFE trubka, kesgich, moy** AMS shlanglari va yo‘naltiruvchilar uchun. Toshkent, mahalliy do‘kon	1 to‘plam	600 000	**600 000**
				Ehtiyot qismlar va asboblar: jami	**14 925 000**

Ehtiyot qismlar va asboblar			Soni	Narx, so‘m	Jami, so‘m
18		**Kamar to‘plami** Zaxira tishli kamarlar. Toshkent, mahalliy do‘kon	2 to‘plam	300 000	**600 000**
19		**Asboblar to‘plami** Bokorez, shpatel, shtangensirkul, fen, insert kavsharlagich. Toshkent, mahalliy do‘kon	1 to‘plam	2 200 000	**2 200 000**
20		**Tarozi 0,1 g, multimetr, vattmetr** Filament qoldig‘i va printer quvvatini o‘lchash. Toshkent, mahalliy do‘kon	1 to‘plam	600 000	**600 000**
				Ehtiyot qismlar va asboblar: jami	**14 925 000**

Mebel (FDM zonasi)			Soni	Narx, so‘m	Jami, so‘m
21		**Ikki qavatli printer stoli 2100 × 950 × 1950** Payvandchiga buyurtma: truba 50×50×3, ikki qavat fanera, X-bog‘lovchi, tepada ramka, devorga anker. Pastda 2 × A2L + AMS Lite, tepada 2 × P2S. Chuqurlik 950 mm: A2L stoli ~330 mm yuradi, orqasida kabel uchun 140+ mm qoladi. Ustaga buyurtma	2 dona	6 900 000	**13 800 000**
22		**H3C stoli 1500 × 800 × 500** Payvandchiga buyurtma: truba 50×50×3, qopqoq fanera 24 mm, pastki polka 18 mm. 2 ta H3C yonma-yon. Ustaga buyurtma	1 dona	3 200 000	**3 200 000**
23		**Antivibratsion oyoqchalar 50 × 50 × 10** Rezina, har printerga 4 ta. Toshkent, mahalliy do‘kon	40 dona	15 000	**600 000**
				Mebel (FDM zonasi): jami	**17 600 000**

Ventilyatsiya			Soni	Narx, so‘m	Jami, so‘m
24		**Kanalli vytyajka 400–600 m³/soat + kanal Ø150** Printer stollari ustidagi zontdan havoni tashqariga chiqaradi (zont tunukasozda). Toshkent, mahalliy do‘kon	1 to‘plam	2 500 000	**2 500 000**
				Ventilyatsiya: jami	**2 500 000**

Ferma boshqaruvi		Soni	Narx, so‘m	Jami, so‘m
25		**Mini-PC: Windows 11, 16 GB, 512 GB SSD** Bambu Farm Manager serveri (dastur bepul). wiki.bambulab.com ↗	1 dona	4 500 000	**4 500 000**
26		**Monitor 24"** Farm Manager ekrani. Toshkent, mahalliy do‘kon	1 dona	1 300 000	**1 300 000**
27		**UPS APC Back-UPS Pro 1500VA (BR1500G-RS, 230 V)** Router va mini-PC: tok o‘chsa ham ferma kuzatuvda qoladi. se.com ↗	1 dona	2 000 000	**2 000 000**
28		**Router Wi-Fi 6 + access point** TP-Link yoki Keenetic; printerlar Wi-Fi/LAN orqali. Toshkent, mahalliy do‘kon	1 dona	2 200 000	**2 200 000**
29		**IP kamera × 3** Printerlarni masofadan kuzatish. Toshkent, mahalliy do‘kon	1 to‘plam	1 200 000	**1 200 000**
			Ferma boshqaruvi: jami		**11 200 000**

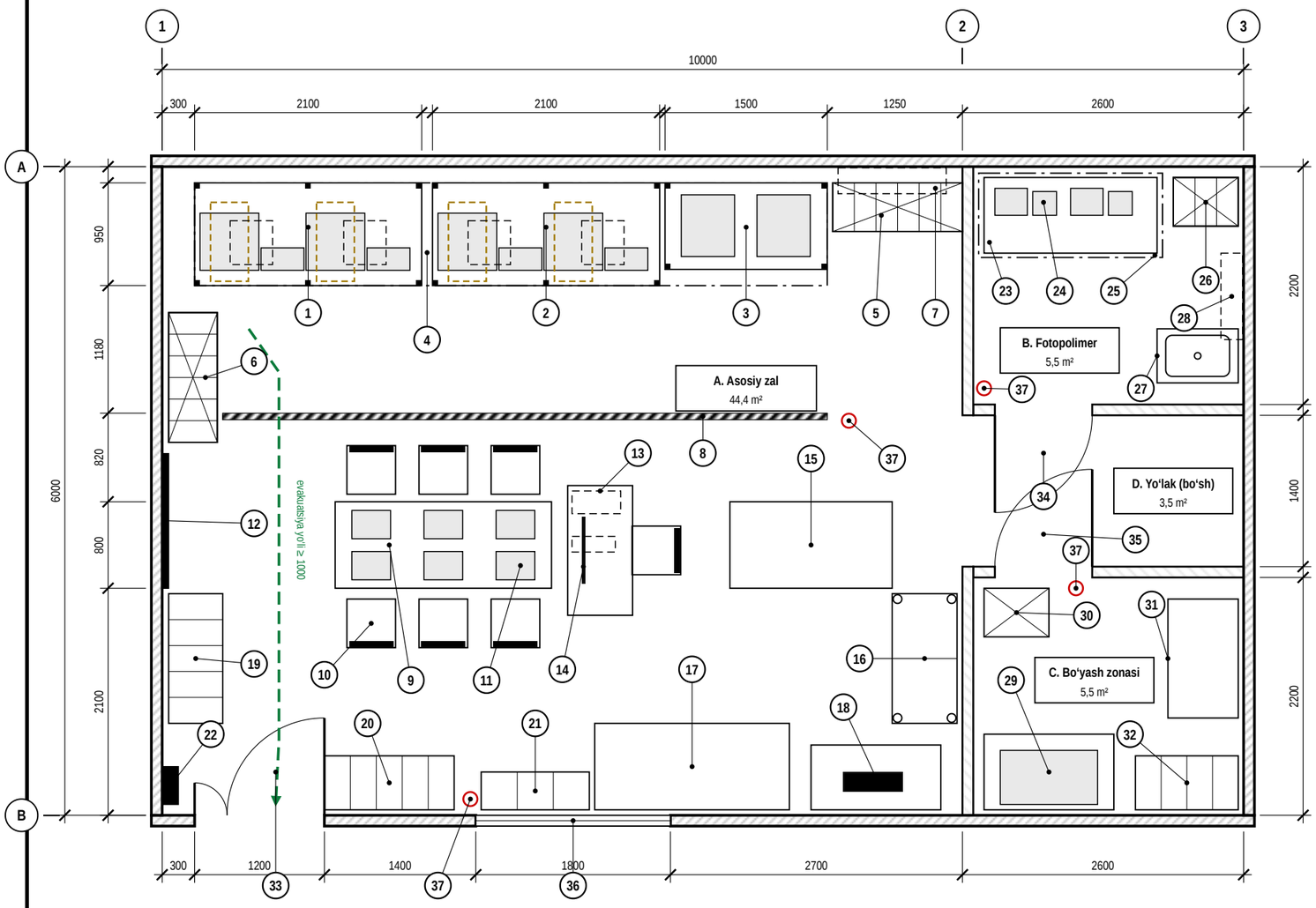


Muqobil: P2S o‘rniga Snapmaker U1 — 13 000 000 so‘m

4 ta alohida bosh: har rang o‘z soplosida, rang almashganda chiqindi deyarli yo‘q; 270 × 270 × 270 mm; g‘altaklar yon tomonda. P2S dan har biri 500 000 so‘m qimmat. ASA uchun korpus alohida olinadi, Bambu Farm Manager’da ko‘rinmaydi. Tavsiya: 4 tadan 2 tasini almashtirish (+1 000 000 so‘m). Bu summa yuqoridagi jamiga kiritilmagan.

snapmaker.com ↗ foto

Jihozlar joylashuvi — reja, +0.000



№	Nomi	O‘lcham, mm	Soni
1	Ikki qavatli printer stoli (2 × A2L + AMS Lite, 2 × P2S)	2100×950×1950	1
2	Ikki qavatli printer stoli (2 × A2L + AMS Lite, 2 × P2S)	2100×950×1950	1
3	H3C stoli + 2 × Bambu H3C Combo	1500×800×500	1
4	Vytyajka zonti (h = 2350, punktir)	5850×950	1
5	Quruq filament shkafi	1200×450×2000	1
6	Quruq filament shkafi	450×1200×2000	1
7	Konditsioner 18000 BTU (devorda, punktir)	1000×240	1
8	Xavfsizlik chizig‘i (pol lentasi)	50 mm	1
9	O‘quv stoli	2000×800×750	1
10	Stul	450×450	6
11	Noutbuk Lenovo Legion 5 (RTX 4060)	358×262	6
12	TV 55" (devorda, h = 950)	1250	1
13	Mentor stoli + stul	1200×600×750	1
14	Mentor PC, monitor 27", UPS (stol ostida)	—	1
15	Ish stoli (verstak) + perfopanel	1500×800×900	1
16	G‘ildirakli stol	1200×600×850	1
17	Qadoqlash stoli	1800×800×900	1
18	Farm Manager PC + UPS stoli	1200×600×750	1
19	Tayyor mahsulot stellaji	500×1200×2000	1
20	Tayyor mahsulot stellaji	1200×500×2000	1
21	Past stellaj (deraza ostida)	1000×350×900	1
22	Elektr shchiti (h = 1200)	150×350	1
23	Fotopolimer stoli	1600×700×900	1
24	Elegoo Saturn 4 Ultra 16K × 2, Mercury Plus × 2	—	1
25	So‘rgich zonti (h = 1900, punktir)	1700×780	1
26	Smola va IPA shkafi	600×450×1800	1
27	Rakovina	750×500	1
28	Konditsioner 9000 BTU (devorda, punktir)	800×200	1
29	Bo‘yash kamerasi (stol + booth)	1200×700	1
30	Bo‘yoq shkafi	600×450×1800	1
31	Silliqlash stoli	650×1100×900	1
32	Quritish stellaji	950×500×1800	1
33	Kirish eshigi 900 + 300	1200	1
34	Fotopolimer xonasi eshigi	900	1
35	Bo‘yash zonasi eshigi	900	1
36	Deraza	1800	1
37	O‘t o‘chirgich OP-5 / CO_2	—	4

Izohlar

1. O‘lchamlar millimetrda. Shift balandligi ≥ 2800 mm. Tashqi devor 100 mm, ichki to‘siqlar — gipsokarton 100 mm.
2. Punktir — devorga yoki shiftga osilgan / balandda turgan jihozlar (zontlar, konditsionerlar, P2S yuqori qavatda).
3. Ikki qavatli stol: pastki qavat 200 mm, yuqori qavat 1100 mm, ramka 1950 mm. Variant: tepada P2S o‘rniga Snapmaker U1.
4. Evakuatsiya yo‘li kamida 1000 mm, shchit oldida 900 × 760 mm bo‘sh joy. D — bo‘sh yo‘lak (zaxira joy).
5. Fotopolimer xonasi alohida so‘rgich bilan (150–250 m³/soat), eshigi doim yopiq; bo‘yash zonasi — o‘z ventilyatori bilan.
6. A2L stoli Y bo‘ylab ~330 mm yuradi: harakat zonasi 730 mm (sariq punktir), orqasida kabel uchun ≥ 140 mm — shu sabab stol chuqurligi 950 mm.

Tashqi devor · Gipsokarton to‘siq · Balandda / ostida (punktir) · Printer, uskuna · Xavfsizlik chizig‘i · A2L stol harakat zonasi · Evakuatsiya yo‘li

0 1 2 3 4 5 m — Masshtab 1:50 (A3 varaqda)

3D printing ferma — xona rejasi

Jihozlar joylashuvi, 10 × 6 m = 60 m²

Masshtab **1:50**	Varaq **A3, 1 / 1**
O‘lchamlar **mm**	Bosqich **Loyiha**
Sana **26.11.2026**	Shahar **Toshkent**
Chizdi **Claude**	Tasdiqladi **—**