

A Neural Implant Design Toolbox for Nonhuman Primates

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jove.com/video/66167

Materials

Name	Company	Catalog Number	Comments
3D Printing Software (Simplify 3D) (Paid)	Simplify3D	Version 4.1	Used for 3D printing using MakerGear printer
C-Clamp	Bessey	CM22	Used for artificial dura fabrication, 2-1/2 Inch Capacity, 1-3/8 Inch Throat
Formlabs Form 3+ 3D Printer	Formlabs	Form 3+	Used for precise 3D printing
MakerGear M2 3D Printer	MakerGear	M2 revG	Used for 3D printing implant prototypes
MATLAB (Paid)	MathWorks	R2021b	Used for brain and skull isolation, virtual craniotomy visualization and skull STL reduction
Phillips Acheiva MRI System	Philips	4522 991 19391	Used for non-human primate imaging
Photopolymer Resin	Formlabs	FLGPGR04	1L, Grey, used for precise 3D prints with Formlabs printer
PreForm Print Preparation Software	Formlabs	Version 2.17.0	Used for 3D printing with Formlabs printer
Printing Filament (PLA)	MatterHackers	88331	PLA 1.75 mm White. Used for 3D printing with MakerGear printer
Silicone CAT-1300	Shin-Etsu		Used for artificial dura fabrication
Silicone KE1300-T	Shin-Etsu		Used for artificial dura fabrication
SolidWorks (Paid)	Dassault Systems	2020	Used for chamber and headpost design
Syn.Flex-S Multicoil	Philips	45221318123	Used for non-human primate imaging