CEREBRO Head Assembly Parts Description

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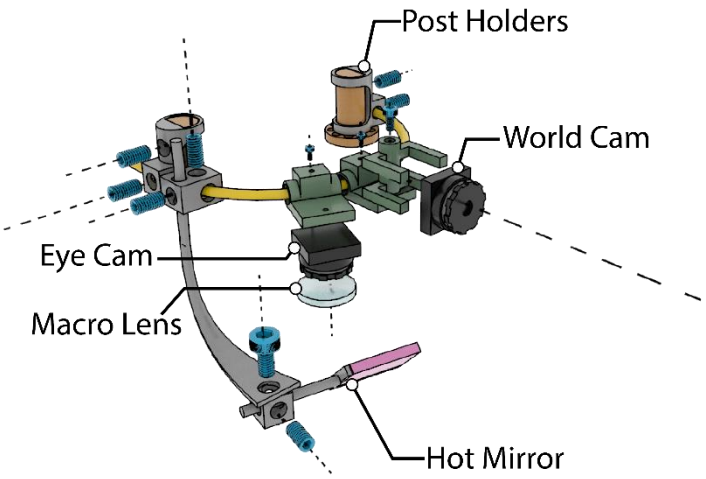
Overall description:

1. The head assembly is held in to the animal's head using two 3D printed horn that are permanently glued to the animal's headpost.
2. All the parts are printed with Titanium (Ti-6-Al-4V) using Direct Metal Laser Sintering (DLS).
3. All the 3D parts are held together with a 2 mm (diameter) stainless steel rod curved to match the profile of the animal's forehead (shown in yellow).



Detailed description of individual parts:

*** I am using the same names here that you will find in the folder with 3D models.*

1. New_headpost.stl	
	Description: Two of these headposts are glued on the monkey's headpost (using acrylic) while fitting the CEREBRO head assembly. Material: PP-Like Translucent White (Somos 9120)
2. Head_Post_cover.stl	
	Description: These cover the headposts so that they do not break in the cage or get stuck in the mesh of the cage. *** It has a through hole on the side. I tap M4 screw though that and use a M4 set screw to hold this piece firmly on the headpost.* Material: PP-Like Translucent White (Somos 9120)

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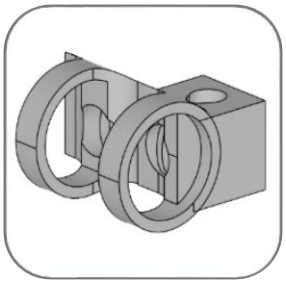
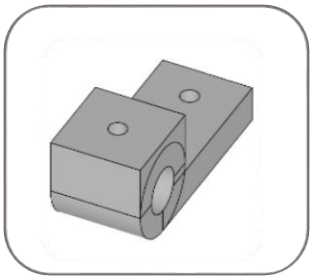
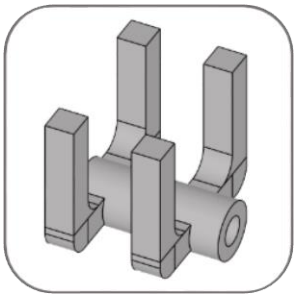
3. Head_Post_Holder.step	
	Description: There is a through hole along the short axis of this cylindrical structure. The stainless-steel armature goes through that. Another though hole perpendicular to that is tapped with M4 screw and the steel rod is held firmly using M4 setscrew. Material: Titanium Ti-6Al-4V
4. Wrld_Cam_Holder_Narrow.step	
	Description: This piece is the base for holding the world cam. The large hole through the short axis is where the stainless-steel armature passes through. It has a hole which I tap for m2 screw and use a metal m2 screw to hold the piece on to the armature. Material: Titanium Ti-6Al-4V
5. Wrld_Cam_Extension.step	
	Description: This piece holds the world camera. The 4 legs are glued to the 4 back corners of the camera sensor. The large through hole is meant for a long M2 screw to pass through and hold this piece to the "Wrld_Cam_Holder_Narrow" Material: Titanium Ti-6Al-4V

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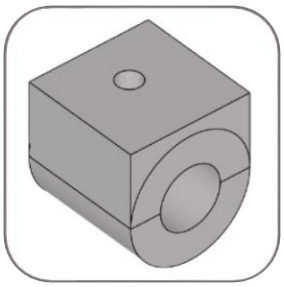
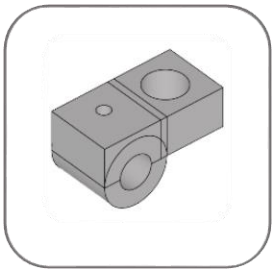
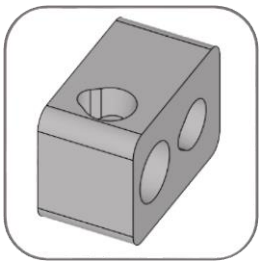
6. Eye_Cam_Holder_Narrow.step	
	Description: This piece holds the eye camera. It has a through hole for the steel armature to pass through and a hole for M2 screw to hold the piece in place. The flat side of the piece is used to glue the eye cam while fitting on an animal. Material: Titanium Ti-6Al-4V
7. LED_Holder.step	
	Description: This piece is similar to other pieces with m2 screw hole to hold on to the steel armature and a large through hole for holding the IR LED that is used to illuminate the eye of the animal. It is always placed right next to the "Eye_Cam_Holder_Narrow" Material: Titanium Ti-6Al-4V
8. Mirror_Extension_Holder_V3.step	
	Description: This piece has a through hole to allow the "Mirror_Extension" to pass through which is held securely using a m4 setscrew. Material: Titanium Ti-6Al-4V
9. Mirror_Extension.step	
	Description: This piece is a key piece as it allows for adjustment of thee position of the hot mirror for the animal. The shaft goes through "Mirror_Extension_Holder_V3" and the placement is adjusted by moving the shaft up/down and can be rotated as well to create better position for the hot mirror Material: Titanium Ti-6Al-4V

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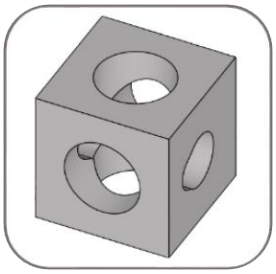
10. Hot_Mirror_Holder_Cube	
	Description: This cube holds the "Mirror_Extension" and "Hot_Mirror_Holder" together. All the holes are designed for M4 tap. Material: Titanium Ti-6Al-4V
11. Hot_Mirror_Holder.step	
	Description: This piece holds the hot mirror that is cut to size. Material: Titanium Ti-6Al-4V