A pair of planar magnetic open-back headphones in white modeled in SolidWorks. This project was part of a RISD ID course taught by Diau Hall.

White headphones with dark gold accents.

Creating complex, curved objects in a solid modeling software like SolidWorks isn’t easy, but that didn’t stop me from modeling P-Frame – a pair of planar magnetic open-back headphones. This project was part of a RISD ID course taught by Diau Hall.

Rough sketches of headphones defined by large, sweeping curves.

Rough sketches of more angular headphones with sharper edges.

Line sketch of the side of the chosen design. The frame of the headphones is very minimal, with only two arms holding each driver unit in place.

Shaded render of the chosen design. The frame is a lighter color, holding up completely exposed drivers and dark leather earpads.

Front view of the P-Frame. The thin profile of the frame contrasts with the thick earpads.

Bottom view of the P-Frame. The angled arms and tilted drivers make this view particularly interesting.

Side view of the P-Frame. It looks quite similar to the sketch from the same viewpoint.

Top view of the P-Frame. The long flat top bar of the frame covers up most of the earpads below.

Close-up view of the left driver unit and earpad.

Close-up view of where the left arms meet the frame. This segment is filled with extreme curves and morphing edges.

Close-up view of the left grill in dark gold. The magnets on the driver are visible through the gaps.

Close-up view of the left grill without the earpad. Square, circle, and line markings denote the length of screw that goes into each hole. The text ‘P-Frame, 1 of 500’ is printed near the bottom of the grill.