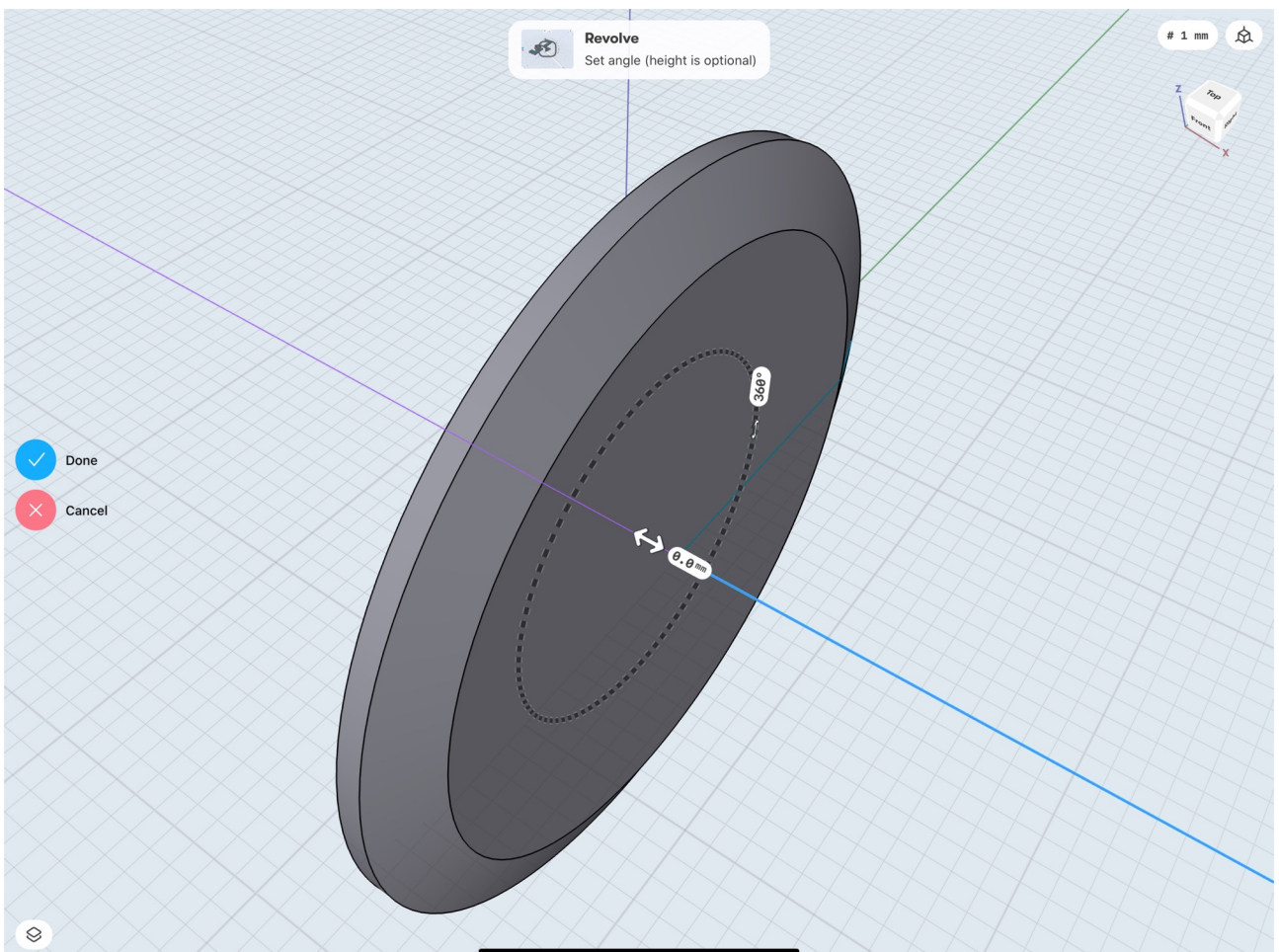
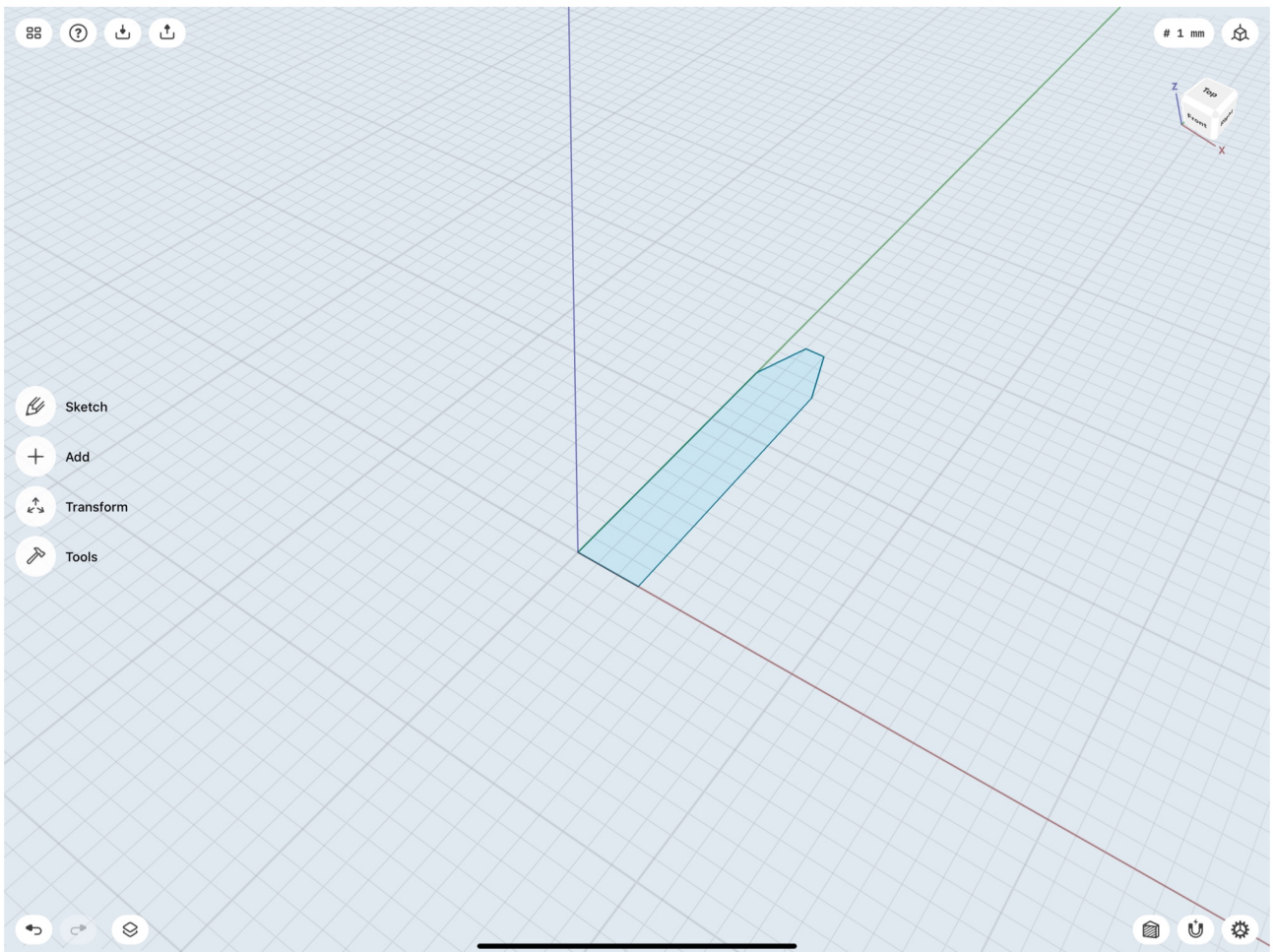
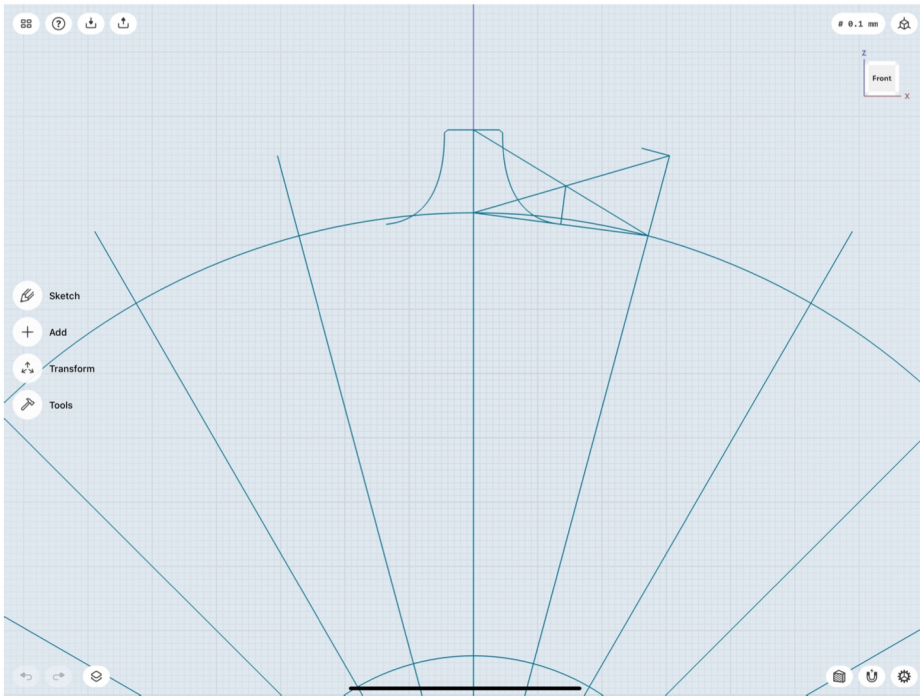


First I created a profile to turn into a disc with an edge for the chainering teeth. Selected **tools** and **revolve**. Made sure I had the mid point of the profile against an axis and selected revolve.

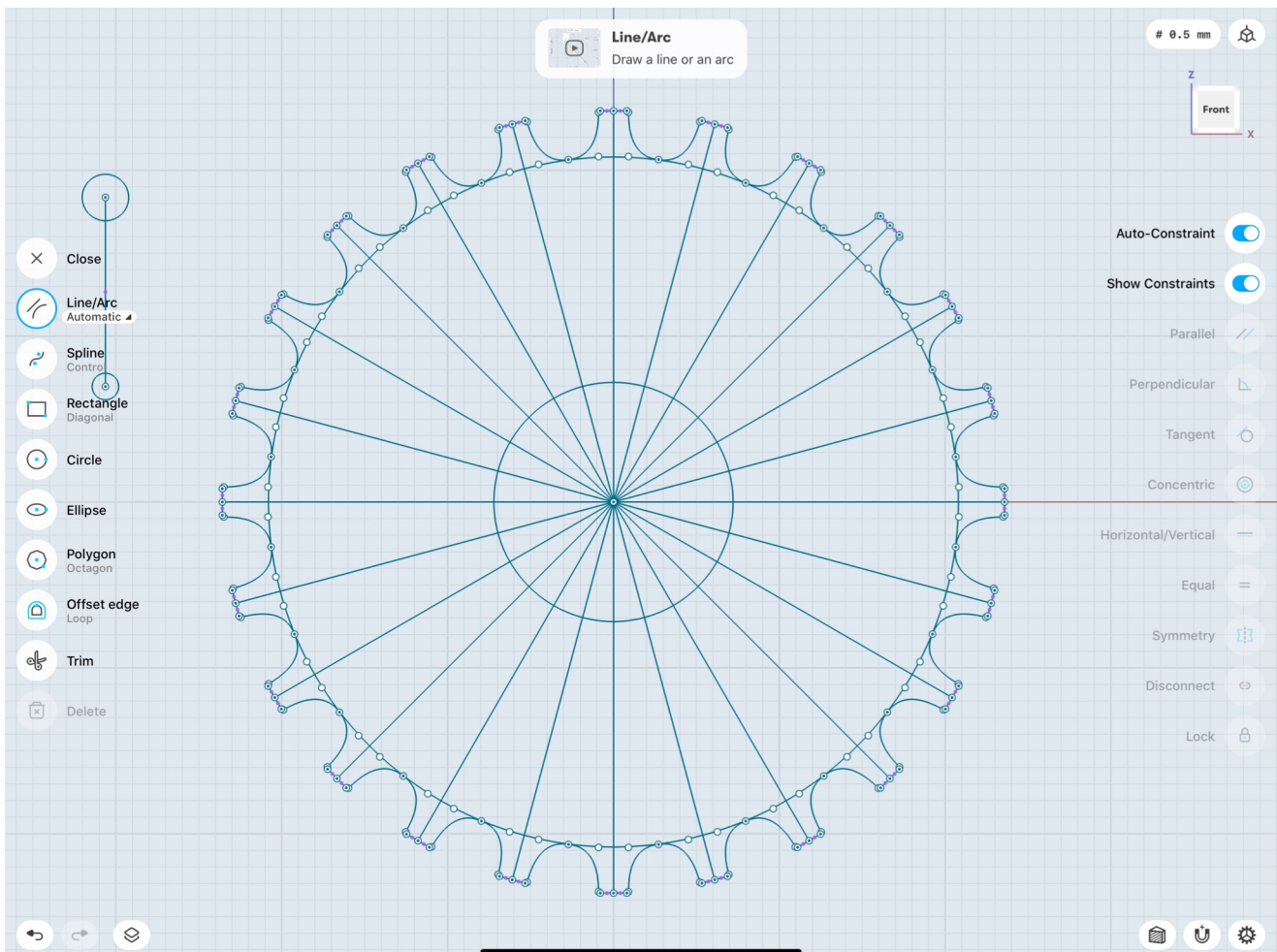




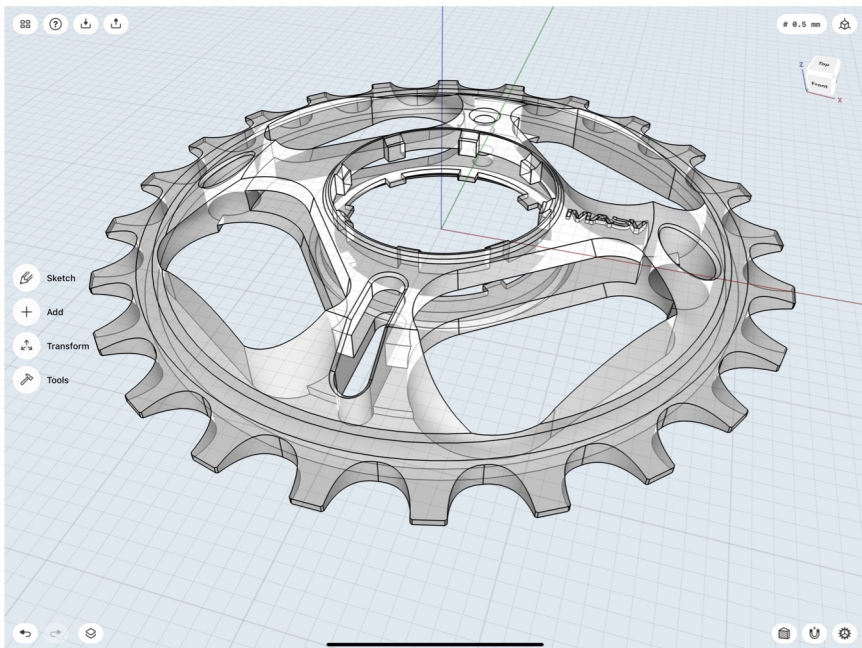
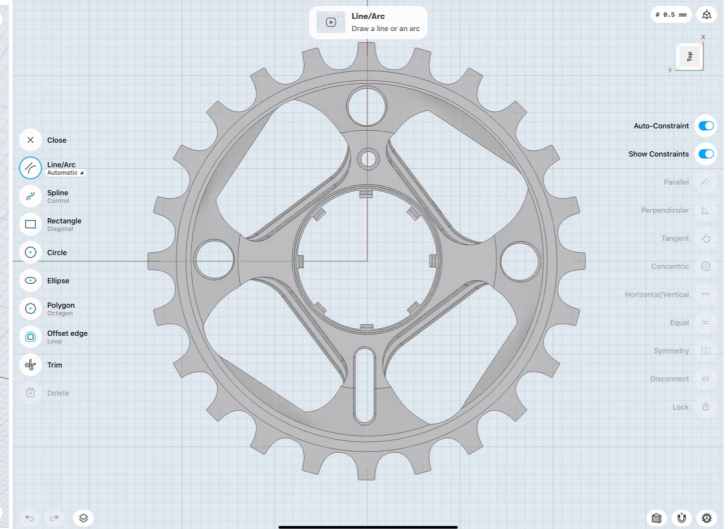
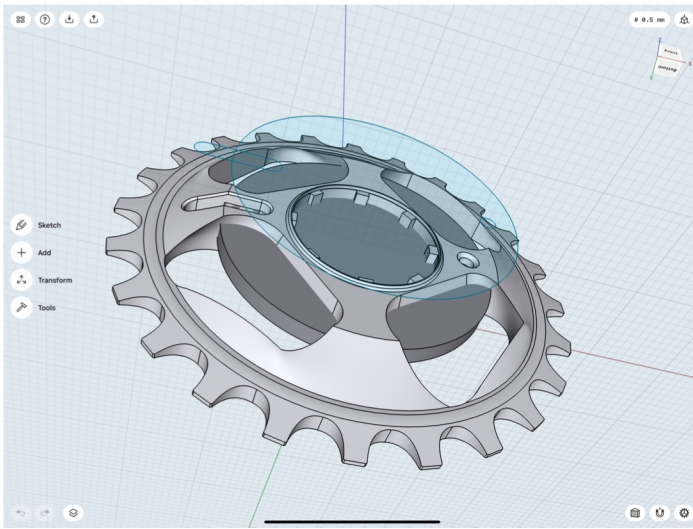
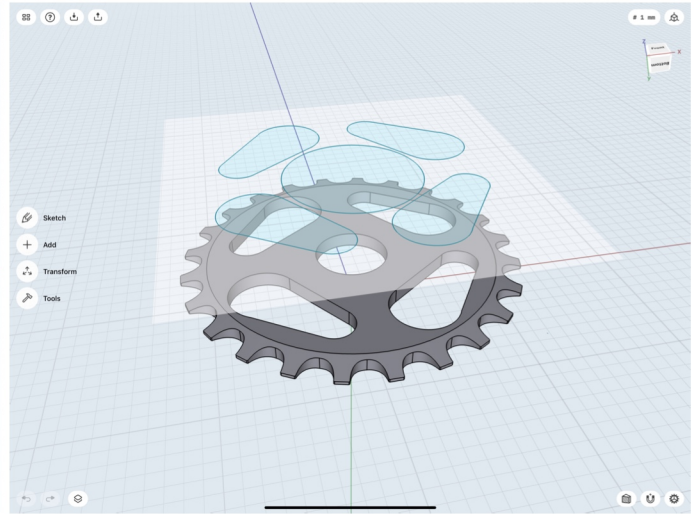
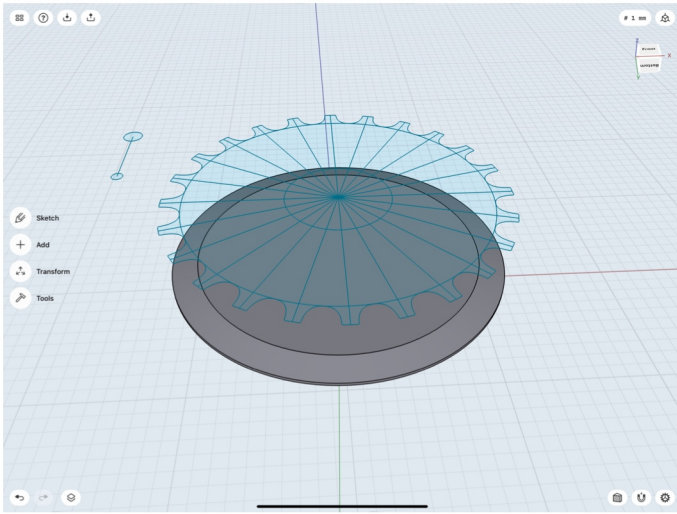
I set up a **construction plane**. With 15 degrees spacing for a 24 tooth ring. Most chainrings and sprockets are even spacing.

Shaping the tooth. I started at the top and used splines to create the tooth shape. I worked out the center bottom mid point and radius by geometrically dividing the space with guides.

Offset the axis of the tooth and line to be centred in the middle of the circle. Copy and pasted each tooth while rotating 15 degrees.



I extruded the radial tooth shape from the profile disc creating the main shape. I then added multiple Boolean extrusions to create the internal details.



Job done.