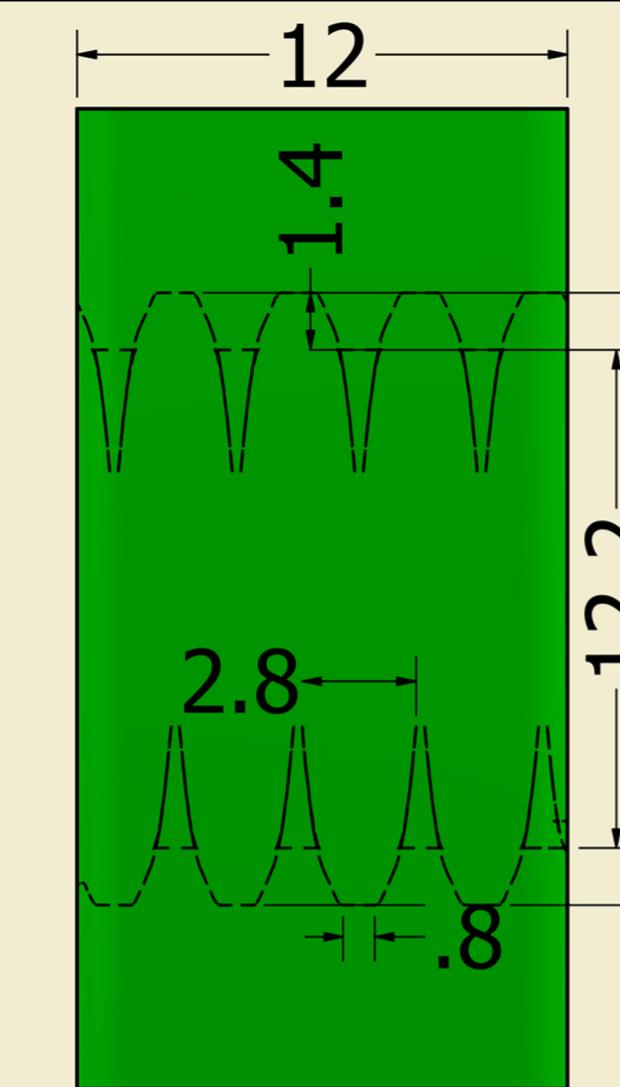
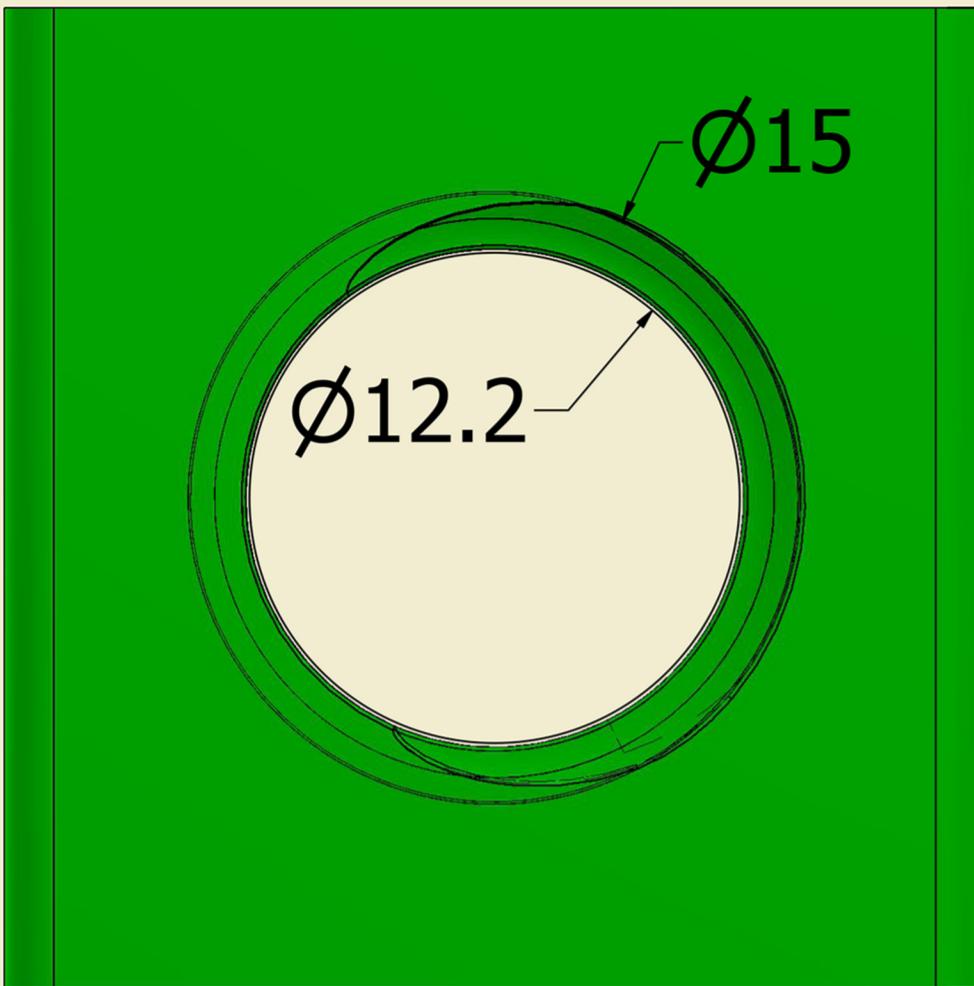


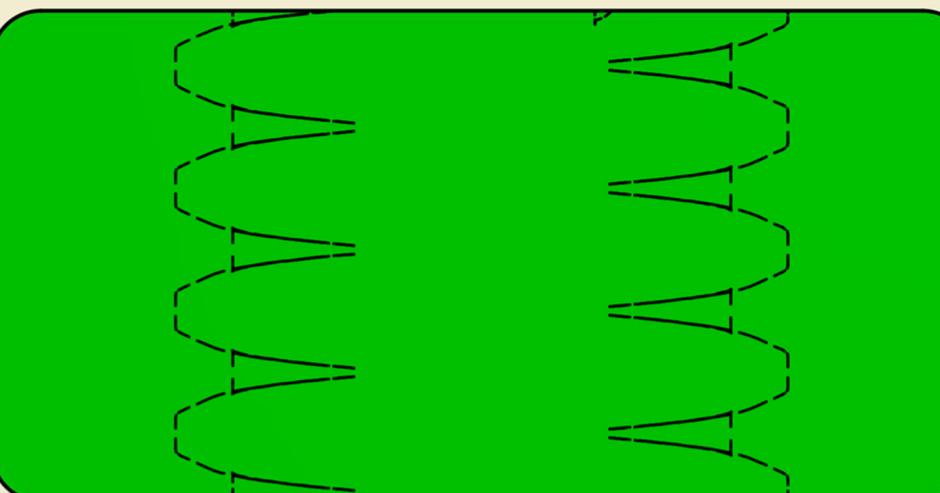
Top



Vice's Tr14x3 Threaded Rod &amp; Nut



**PETG Tr14 x 3 Nut & Bolt**  
 Preface: eBay Vice's Nut was not too precise.  
 After fabricating, improvements were descent.  
 Research into Additive Threads was compelling.  
 So the Journey began.



**Step 7: Print**  
 .4mm Nozzle  
 .2 Layer Height  
 Bowden Titan|V6  
 Single Outline  
 100% Infill  
 S3D V4.1

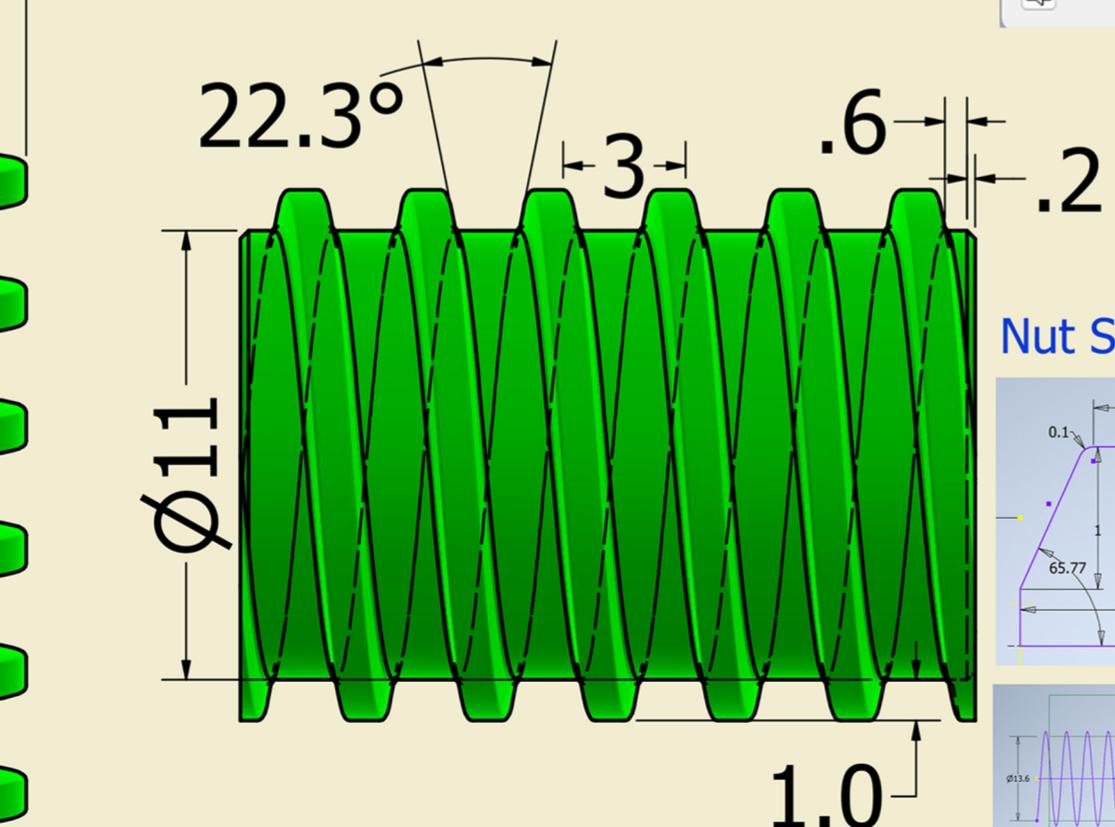
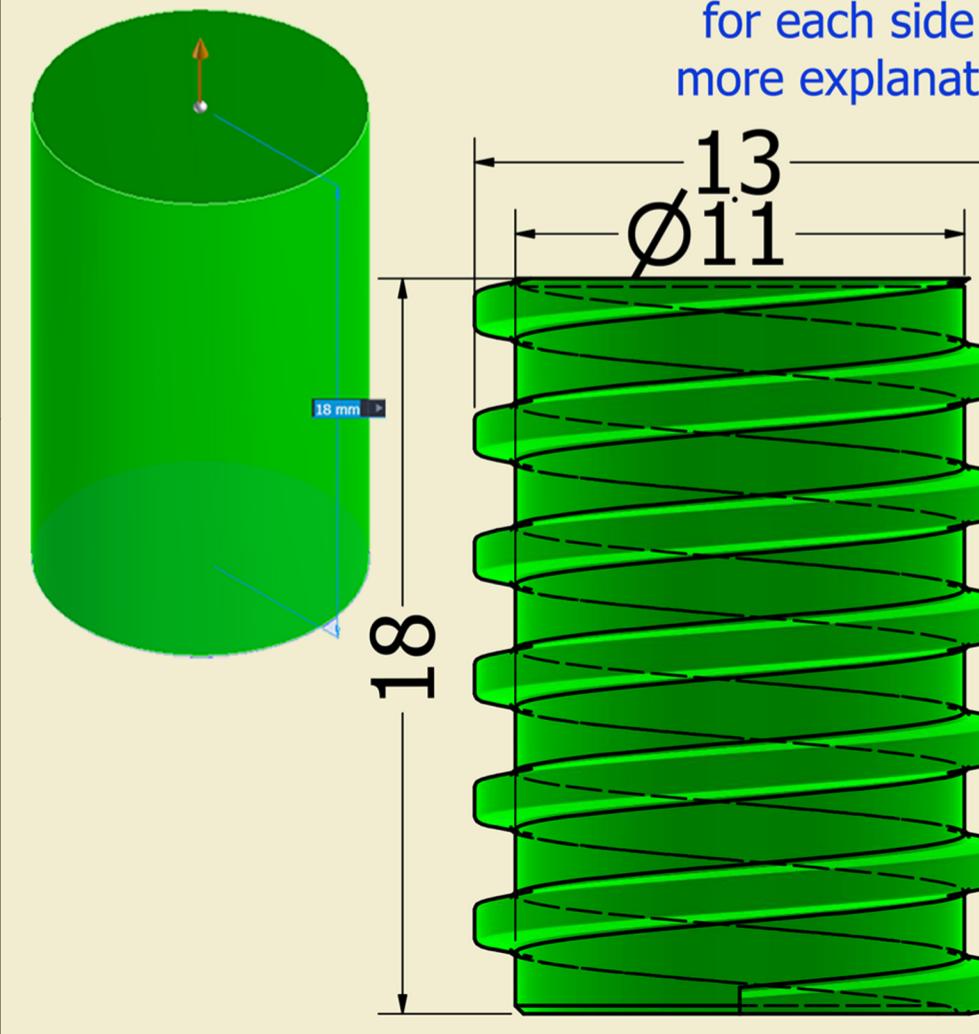
**Print Orientation****Bolt Creation****Step 1: Find Thread Specs**

ISO Metric Trapezoidal Threads DIN 103 &amp; ISO 2904 excerpts

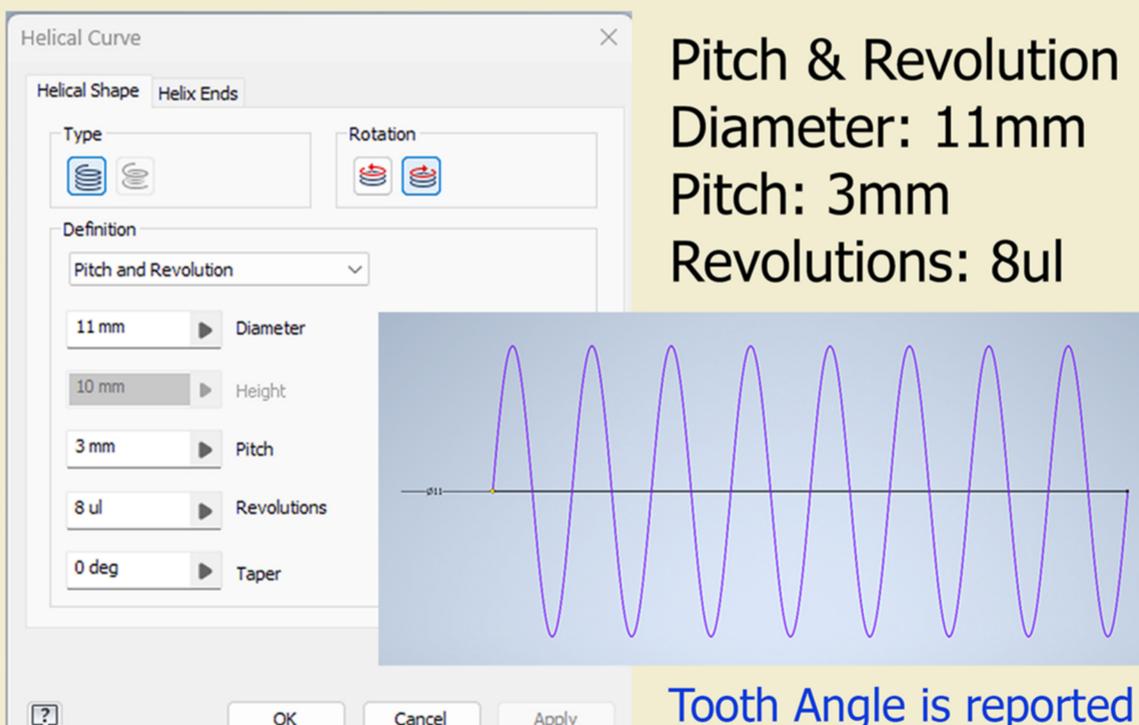
Size [mm]	Thread Designation	Pitch [mm]	Class	Major Dia Max   Min	Pitch Dia Max   Min	Minor Dia Max   Min
14	TR14 x 3	3	7e	14.000   13.764	12.415   12.191	10.500   10.135

**Step 2: Extrude ID**

2+ Pitches More than  
 desired final length  
 Ex:[2x3=6mm]

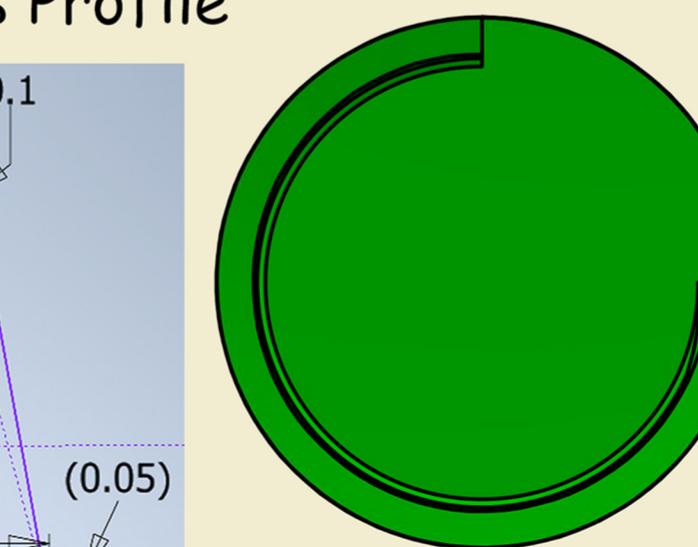
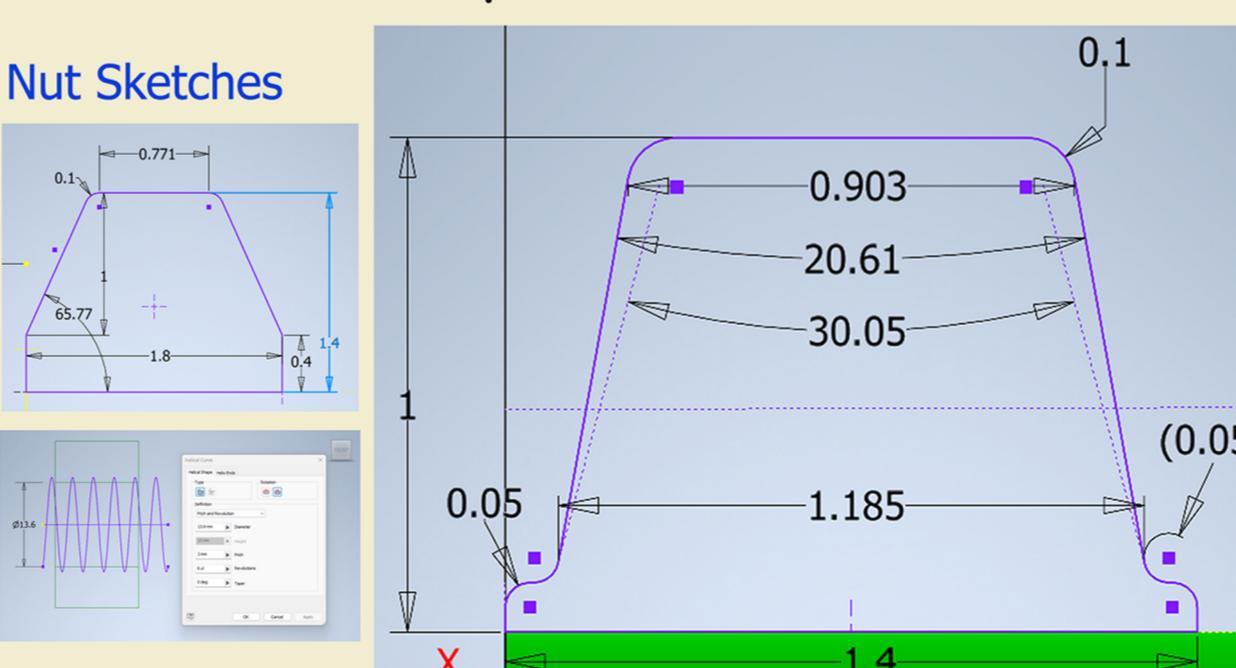


[Same procedure for nut, with cut and attached sketches below]

**Step 3: Create 3D Sketch [Helical Curve]**

Pitch & Revolution  
 Diameter: 11mm  
 Pitch: 3mm  
 Revolutions: 8ul

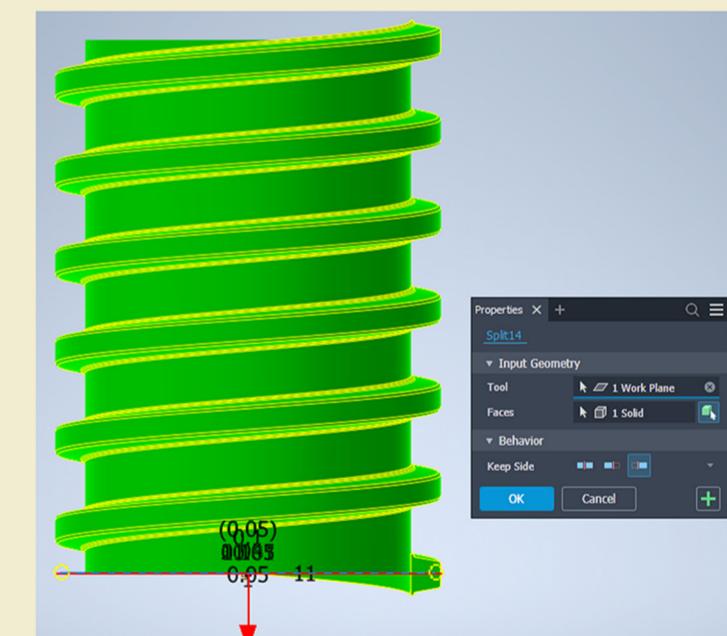
Tooth Angle is reported at 30°  
 Figuring the right dimensions  
 considering ooze and each printer  
 might take some tweaking

**Step 4: Sketch Thread's Profile**

Nut Sketches

**Step 6: Create Plane(s) & Split**

Position where buildplate and  
 thread are ideal to begin printing.  
 Use Split to Slice.  
 Repeat for Top if needed.

**Step 5: Sweep Thread Profile around Helical Curve**