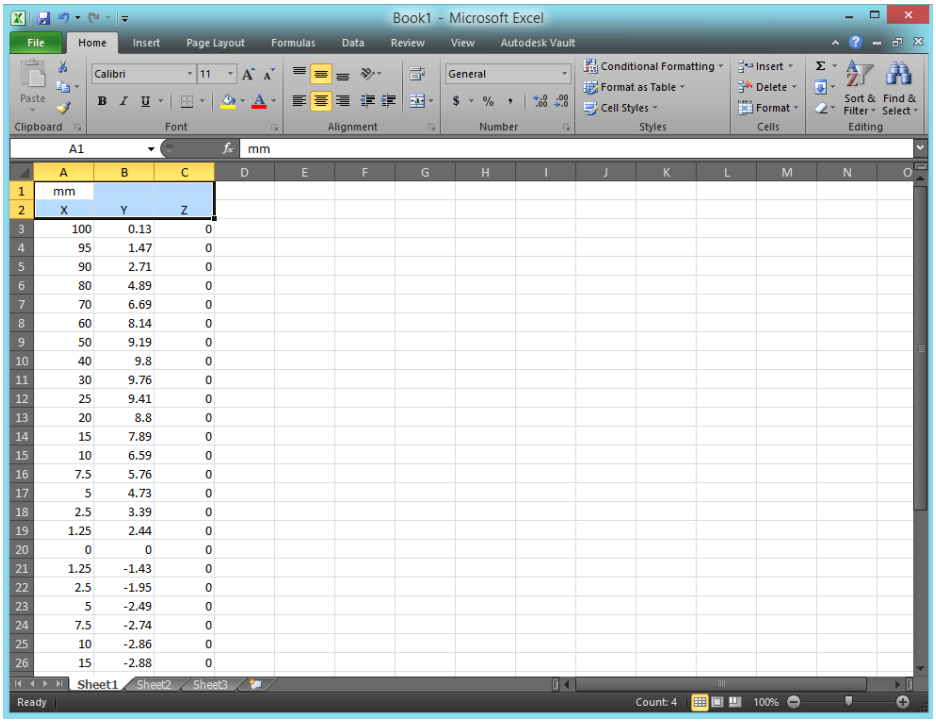
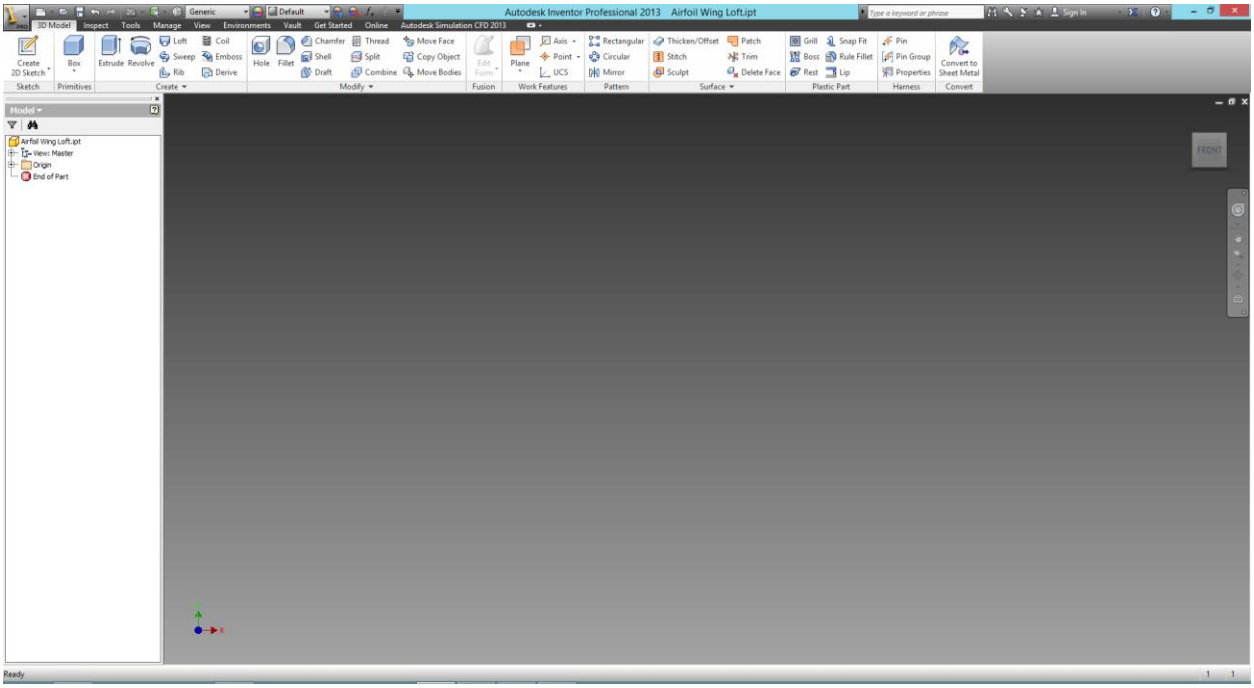
1. *Generate airfoil coordinate in excel spreadsheet with this format. In this tutorial I use NACA4412 as a root and NACA 2410 as a tip.*

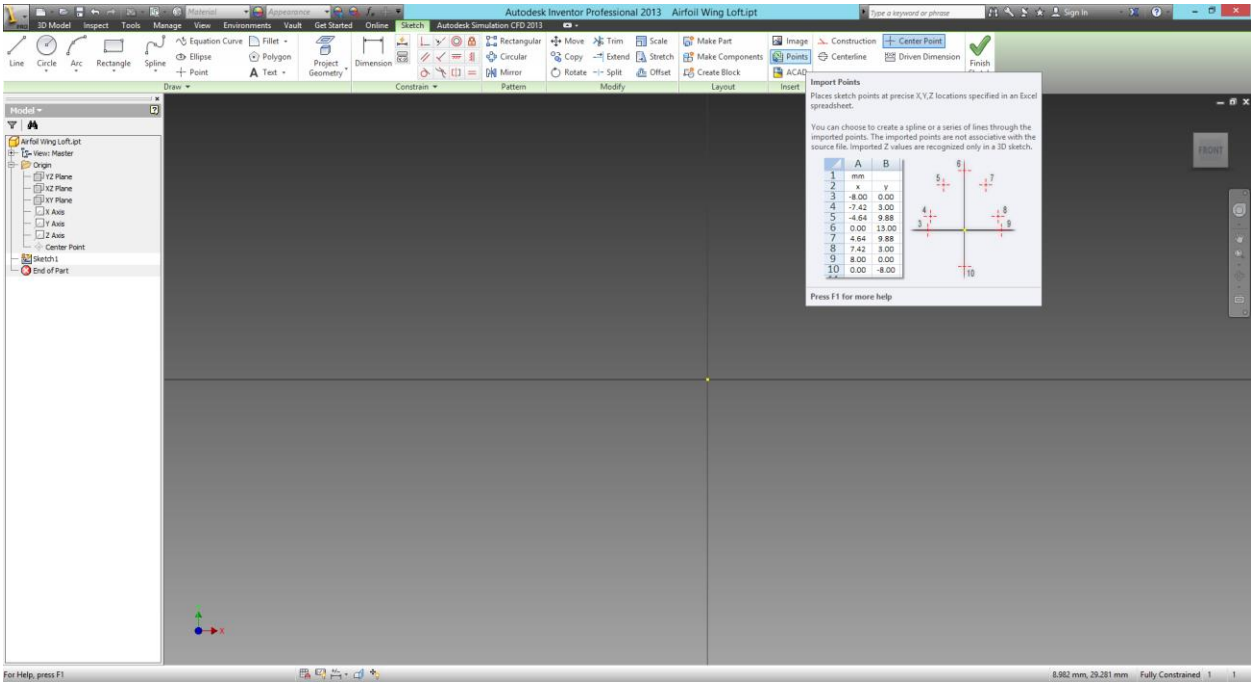


	A	B	C
1	mm		
2	X	Y	Z
3	100	0.13	0
4	95	1.47	0
5	90	2.71	0
6	80	4.89	0
7	70	6.69	0
8	60	8.14	0
9	50	9.19	0
10	40	9.8	0
11	30	9.76	0
12	25	9.41	0
13	20	8.8	0
14	15	7.89	0
15	10	6.59	0
16	7.5	5.76	0
17	5	4.73	0
18	2.5	3.39	0
19	1.25	2.44	0
20	0	0	0
21	1.25	-1.43	0
22	2.5	-1.95	0
23	5	-2.49	0
24	7.5	-2.74	0
25	10	-2.86	0
26	15	-2.88	0

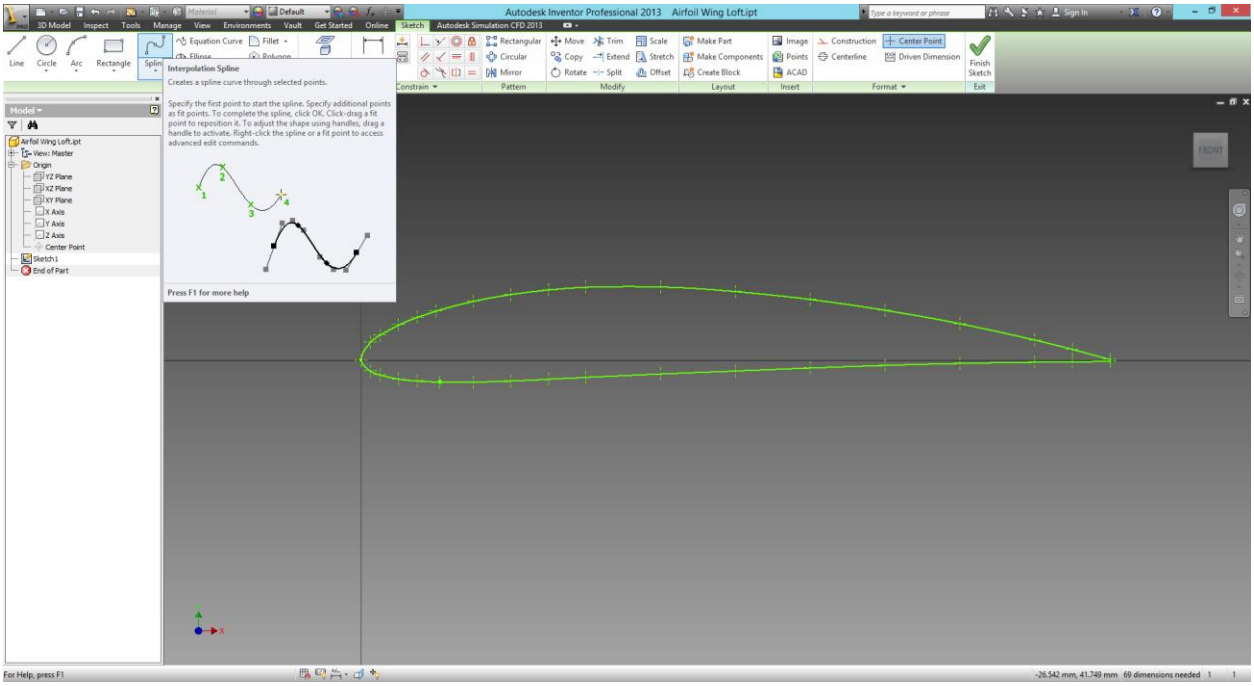
2. *Open Inventor 2013 as your desire unit. In this tutorial I use mm.*



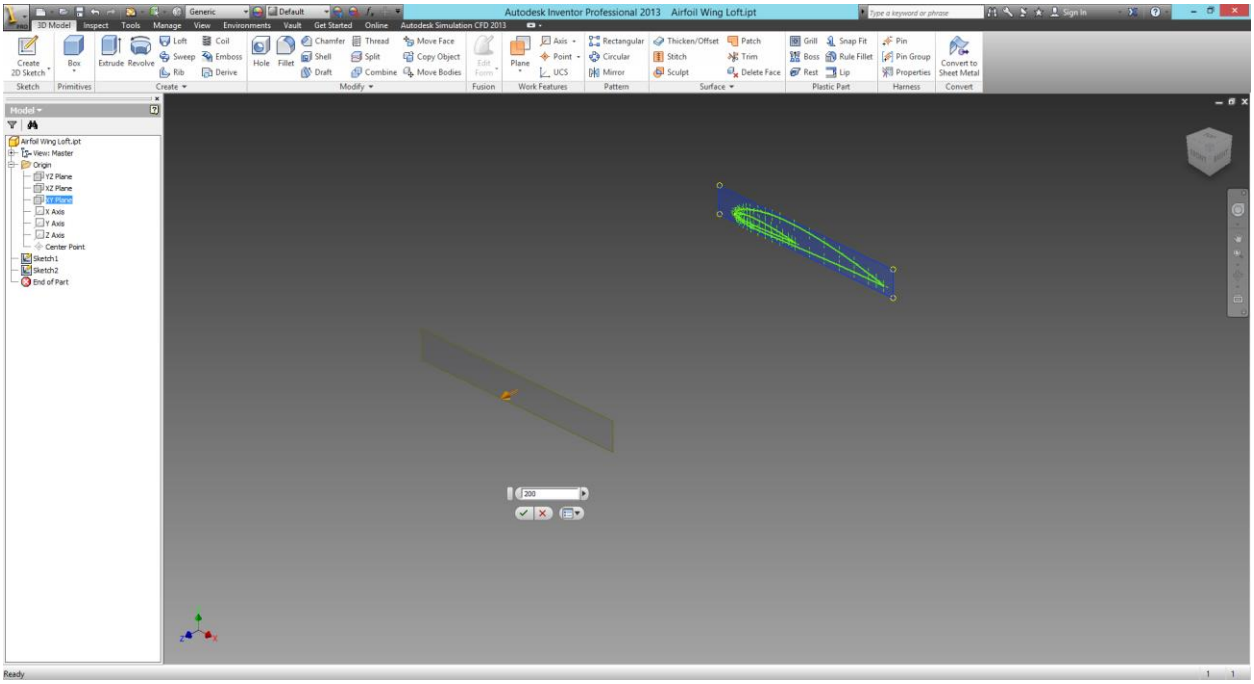
3. *Create 2d sketch on XY-Plane, because airfoil coordinate I've created in spreadsheet was based on XY plane. Then import point into it (NACA4412).*



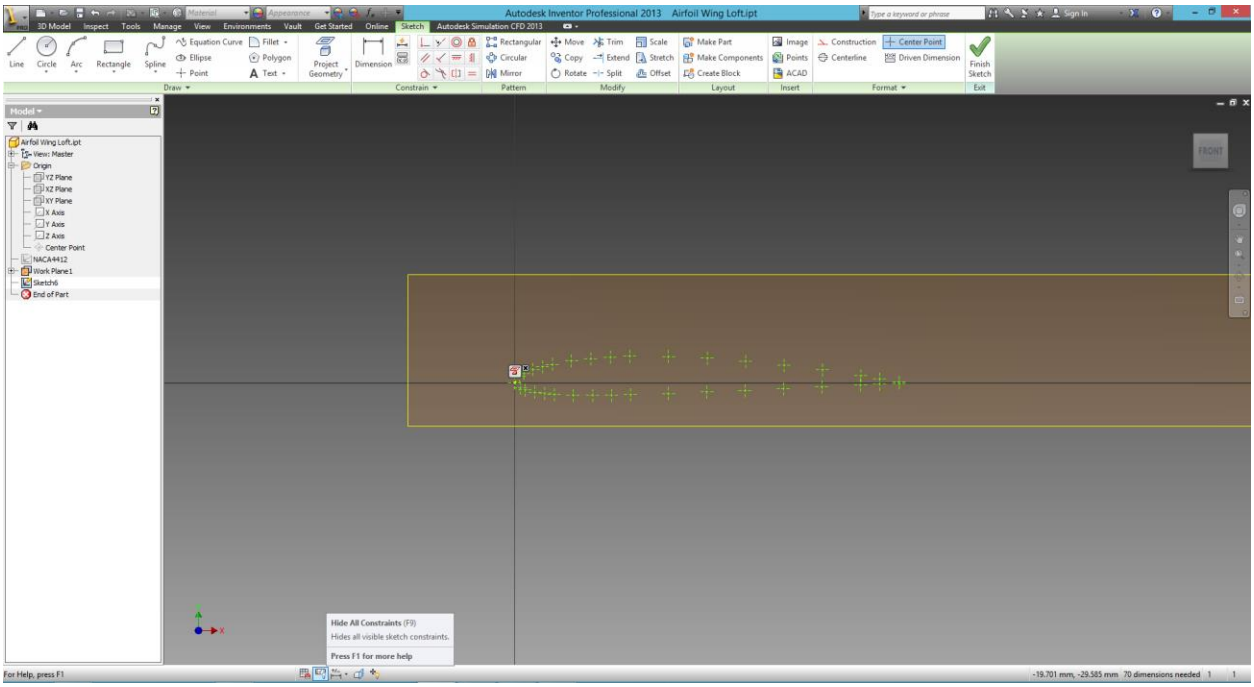
4. *Use spline to connect every point together to form close loop sketch. And then close sketch.*



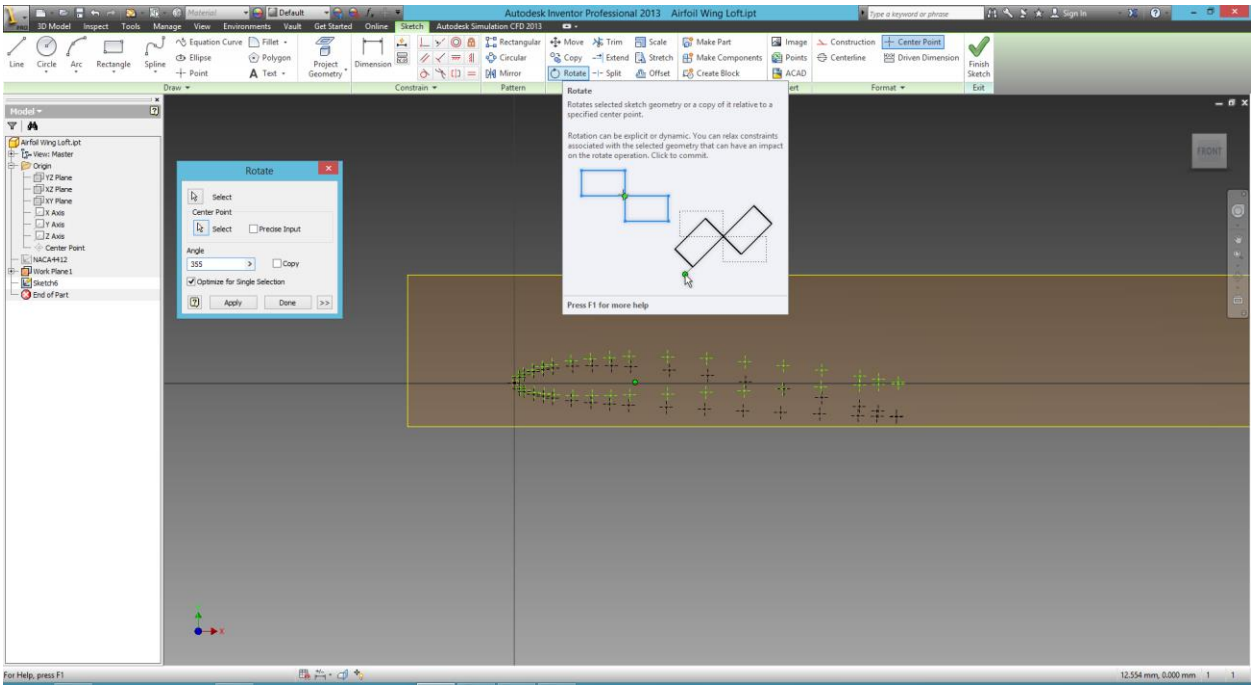
5. *Offset plane from XY plane to your desired wing span. and then use it as 2d sketch.*



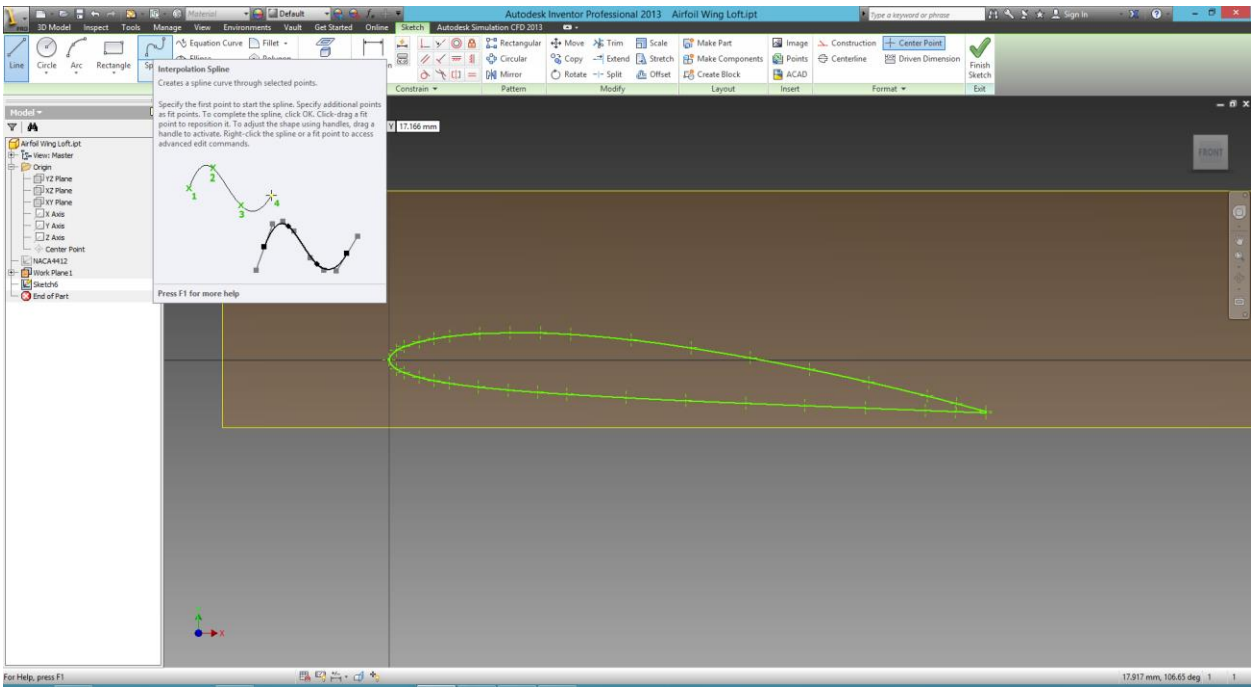
6. *Import point tip airfoil (NACA2410) to it and click show/hide constraint to view all constraints that added on these imported points. Then delete all constraints*



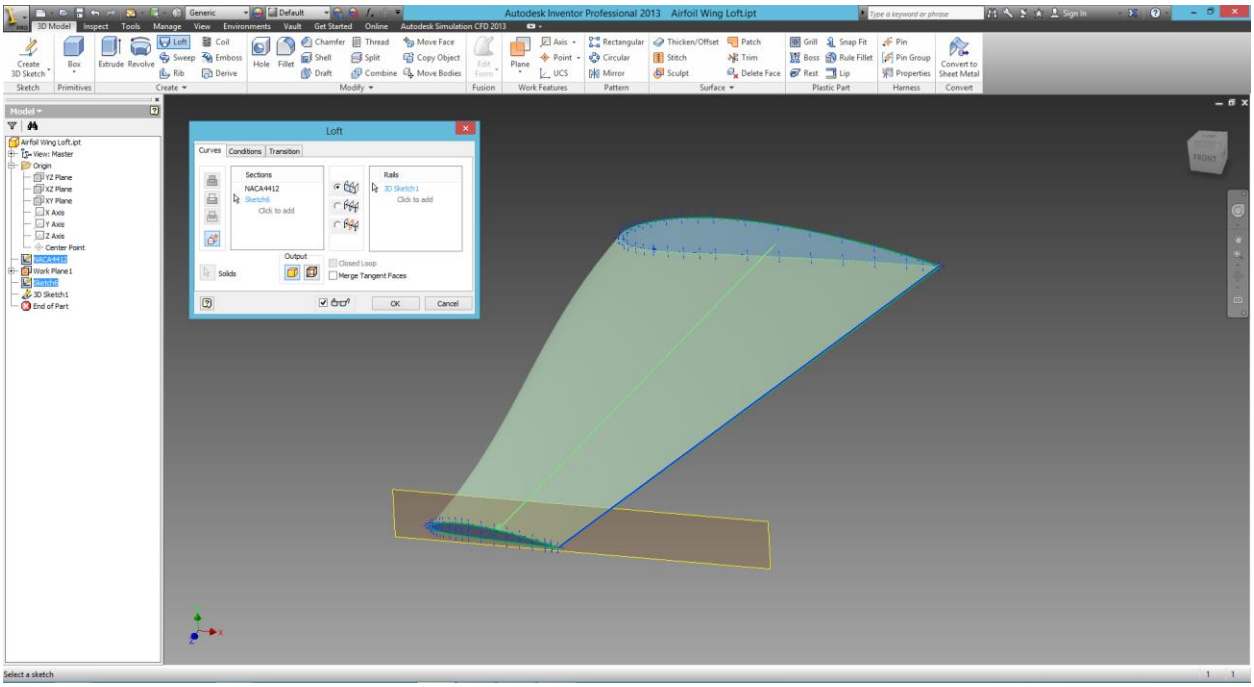
7. *Using rotate to rotate all points to your desired angle.*



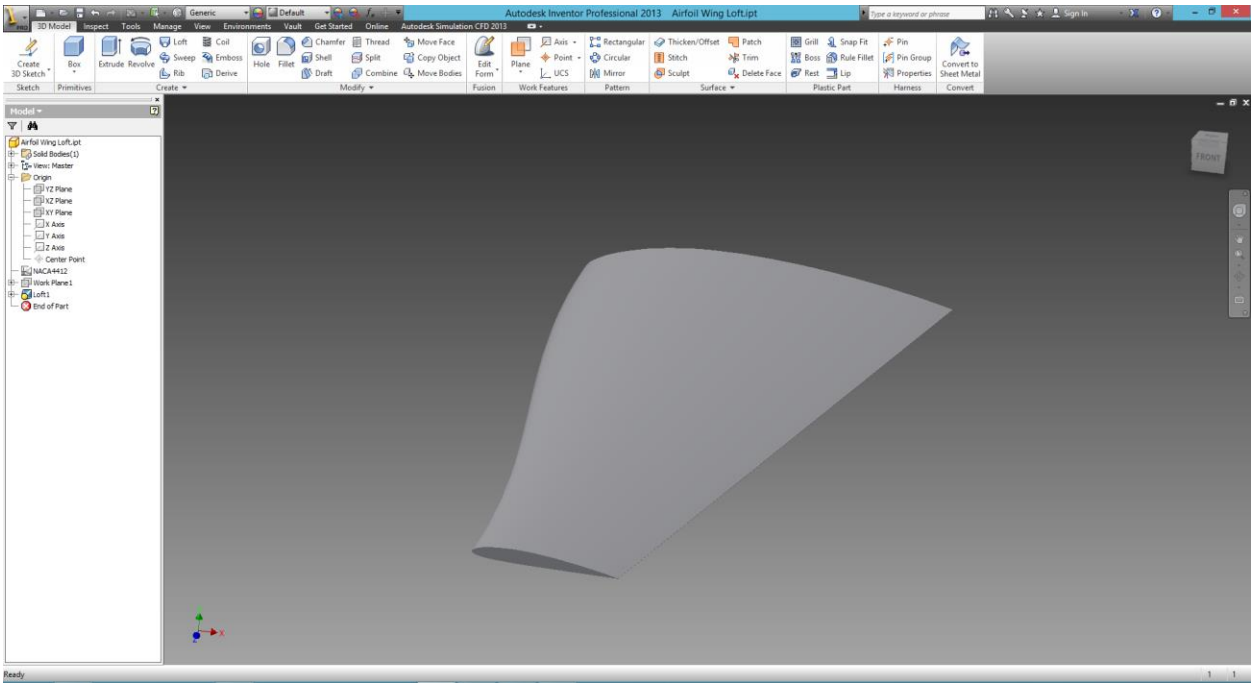
8. *Connect every point by spline*



9. *Use loft to loft model into 3d-solid wing shape.*



10. *Finished model. That's all.*


Autodesk Inventor Professional 2013 Airfoil Wing Loft.ipt
3D Model
Inspect
Tools
Manage
View
Environments
Vault
Get Started
Online
Autodesk Simulation CFD 2013
Create 3D Sketch
Box
Extrude
Revolve
Loft
Sweep
Rib
Coil
Emboss
Derive
Hole
Fillet
Chamfer
Shell
Draft
Thread
Split
Combine
Move Face
Copy Object
Move Bodies
Edit Form
Plane
Axis
Point
UCS
Rectangular
Circular
Mirror
Thicken/Offset
Stitch
Sculpt
Patch
Trim
Delete Face
Grill
Boss
Rest
Snap Fit
Rule Fillet
Lip
Pin
Pin Group
Properties
Convert to Sheet Metal
Sketch
Primitives
Create
Modify
Fusion
Work Features
Pattern
Surface
Plastic Part
Harness
Convert
Model
Airfoil Wing Loft.ipt
Solid Bodies(1)
View: Master
Origin
YZ Plane
XZ Plane
XY Plane
X Axis
Y Axis
Z Axis
Center Point
NACA4412
Work Plane1
Loft1
End of Part
FRONT
Ready