

## Fusion 360 and 3D Printing: Tips and Tricks for a Successful Workflow

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## About me

### Elizabeth Bishop

- 2012 2017 MEng Mechanical Engineering
- 2016 2017 UAV Group Project
- 2017 2021 PhD in Large-Scale Additive Manufacturing (3D Printing)
- Maker in Residence at Warwick Engineering Build Space



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## Learning Objectives

### **OBJECTIVE 1 Explore the 3D printing workflow from start to print using Fusion 360**

### **OBJECTIVE 2**

**Explore different available 3D printing technology** 

### **OBJECTIVE 3**

**Explore the additive manufacturing workspace in Fusion 360** 

## What is 3D Printing?





The process of joining materials to make parts from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing and formative manufacturing methodologies

ASTM 52900

### ADDITIVE MANUFACTURING TECHNOLOGIES

















### **Final Part**



















## What is a Slicer?























## **Design Tips for 3D Printing**



# Design to not need support material

# Tip 1: Change the print orientation

# **Tip 2:** Overhang angle

Tip 3: Bridging design

# Tip 4: Small feature size











## **3D Printing Workflow**

## Conclusions





## Summary

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