

# ADDITIVE MANUFACTURING

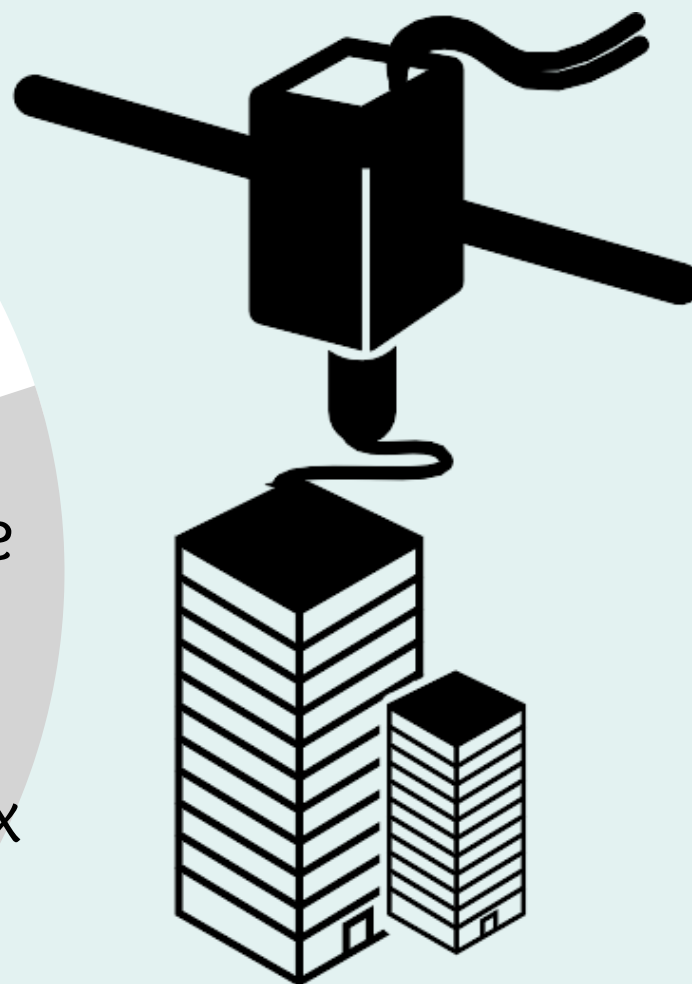
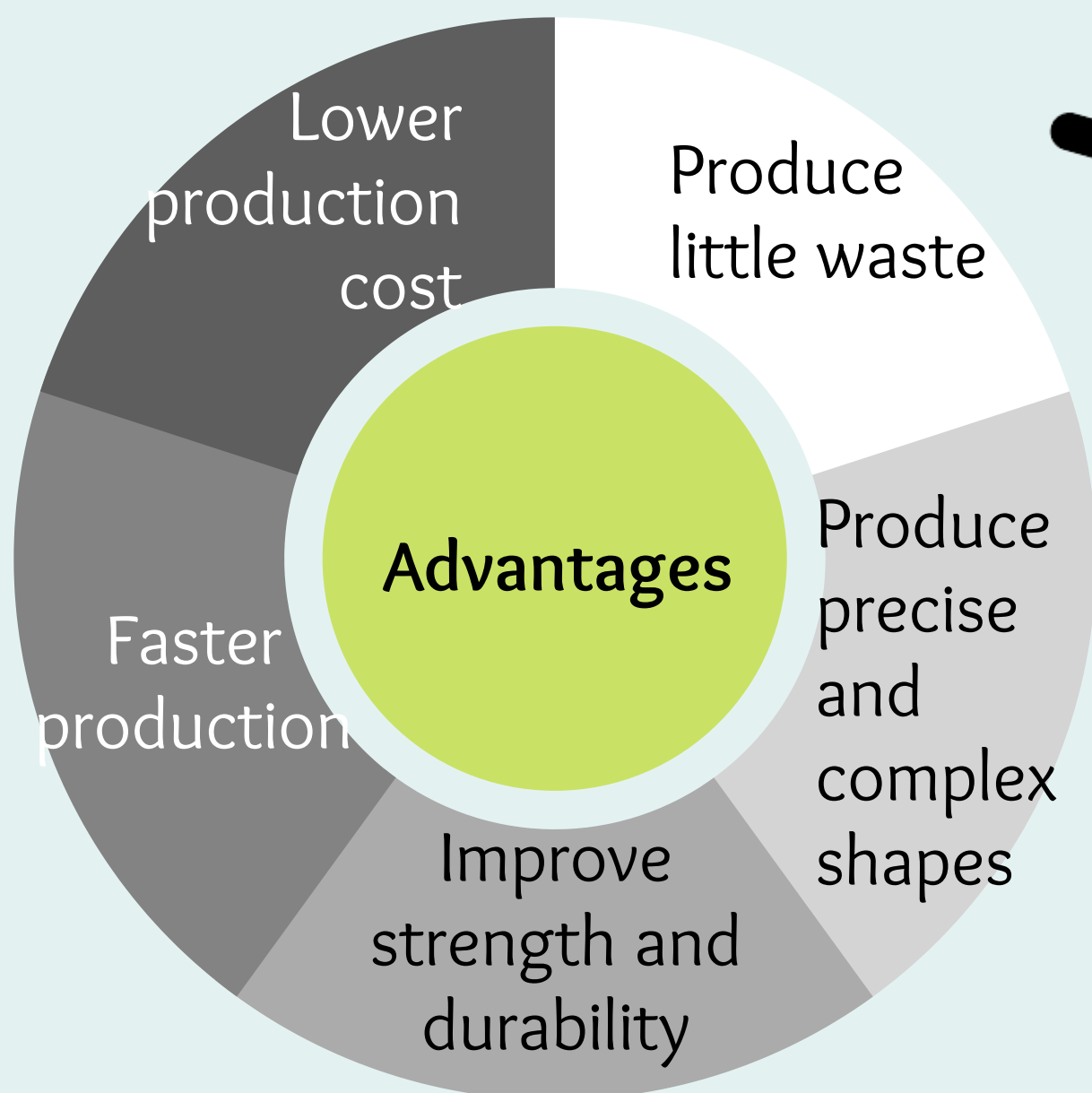
## INTRODUCTION

Additive manufacturing a.k.a 3D printing is a computer controlled process that creates 3D objects by depositing materials, typically in layers.

<https://www.twi-global.com/technical-knowledge/faqs/what-is-additive-manufacturing#WhereisAMused>

## DESCRIPTION

- Uses 3D object scanners or computer aided design (CAD)
- Built layer by layer



[https://www.flaticon.com/free-icon/3d-printer-printing\\_44252](https://www.flaticon.com/free-icon/3d-printer-printing_44252)

## EXAMPLES

- Lightweight engine
- Aircraft parts
- International Space Station (ISS) spare parts



Aerospace

<https://www.cleanpng.com/png-airplane-icon-a5-computer-icons-flight-airplane-1186462/>

- Prototypes
- Preproduction sample and tools
- Customized parts



Automotive

[https://pngtree.com/freepng/vector-car-icon\\_3989845.html](https://pngtree.com/freepng/vector-car-icon_3989845.html)

- Tissue and organs bioprinting
- Prosthetics
- Implants



Medical

[https://pngtree.com/freepng/vector-medical-icon\\_3989751.html](https://pngtree.com/freepng/vector-medical-icon_3989751.html)

- Produce house parts
- House in Russia built in 24 hours



Housing

[https://www.flaticon.com/free-icon/home\\_25694](https://www.flaticon.com/free-icon/home_25694)

<https://www.3dcastor.com/post/the-best-applications-of-3d-printing-in-the-aerospace-industry>  
<https://cprimestudios.com/blog/how-3d-printing-used-automotive-industry>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4189697/>  
<https://techcrunch.com/2018/05/08/how-3d-printing-is-revolutionizing-the-housing-industry/>

## REFLECTION

Additive manufacturing is on its way to become the main and preferred method dominating most of the industries which will benefit humankind from the perspective of time, cost and durability all the while reducing the industrial waste which may help to reduce the impact of pollution to the environment.



[https://www.pngitem.com/middle/ibTRih\\_reading-vector-thinking-transparent-clipart-free-download-man/](https://www.pngitem.com/middle/ibTRih_reading-vector-thinking-transparent-clipart-free-download-man/)



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