



Professional 3D Printers in the Classroom

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#3DPrintEdu

- 01 Who is Stratasys
- 02 Stratasys in Education
- 03 3D Printing Modules and 3D Printing Classes

Worldwide Leader in Additive Manufacturing

Empowering Designers and Creators with
tools to fail faster

Building a Digital Ecosystem

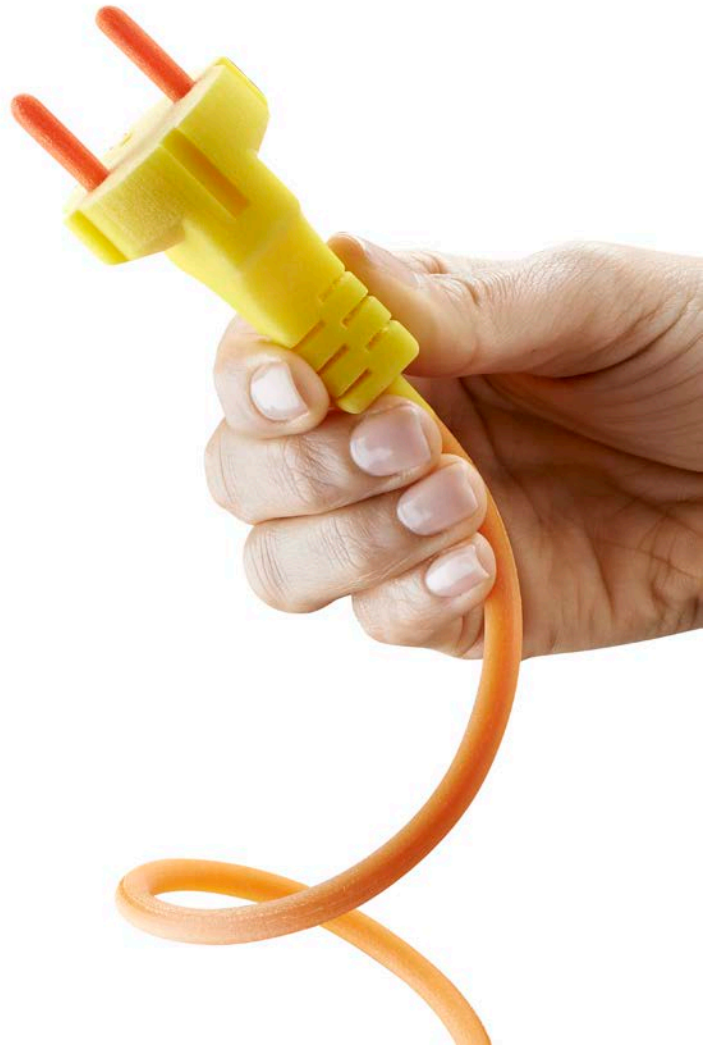
Education Imperative: *Shaping the Future*

Inspire and recruit more people into STEM professions to build the pipeline of designers and engineers the world needs

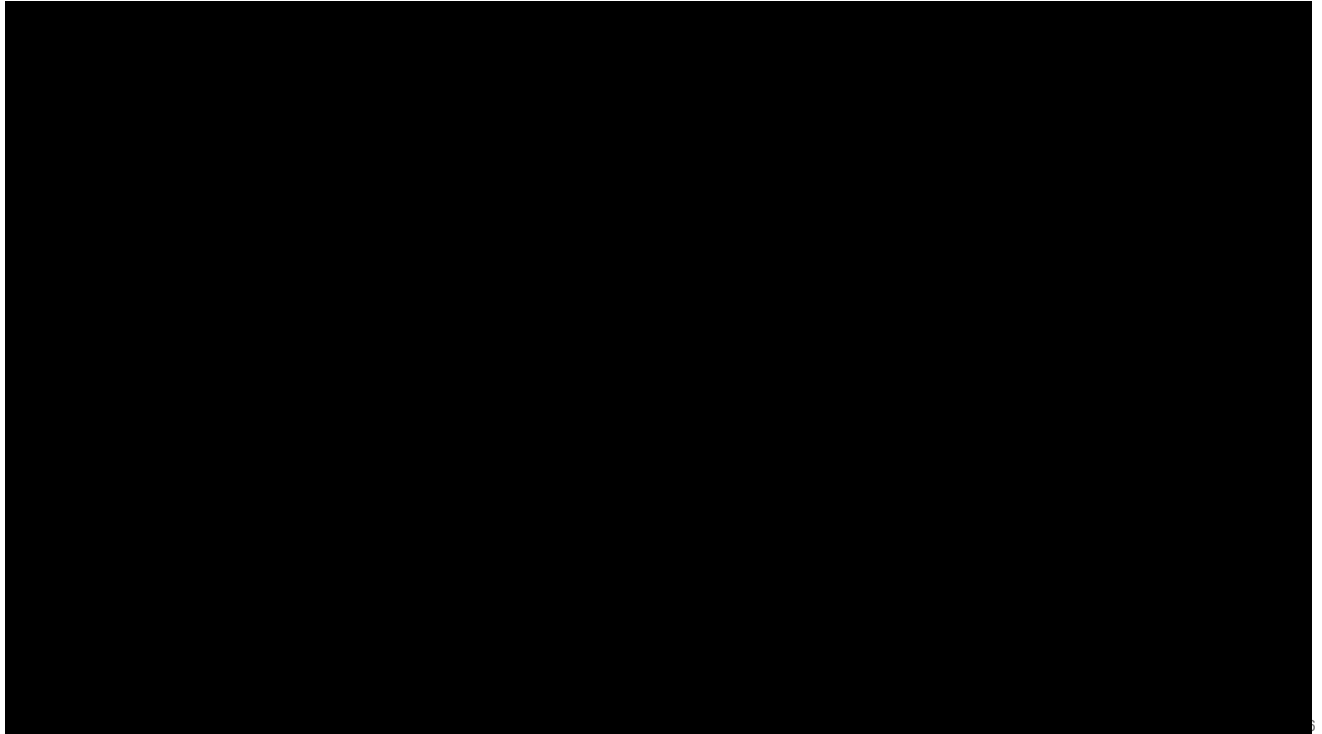
Lead and organize the 3D printing community through convening platforms, relevant content, and providing industry credentials

Grow market share and mindshare by building the global ecosystem and enabling partners to serve students and faculty

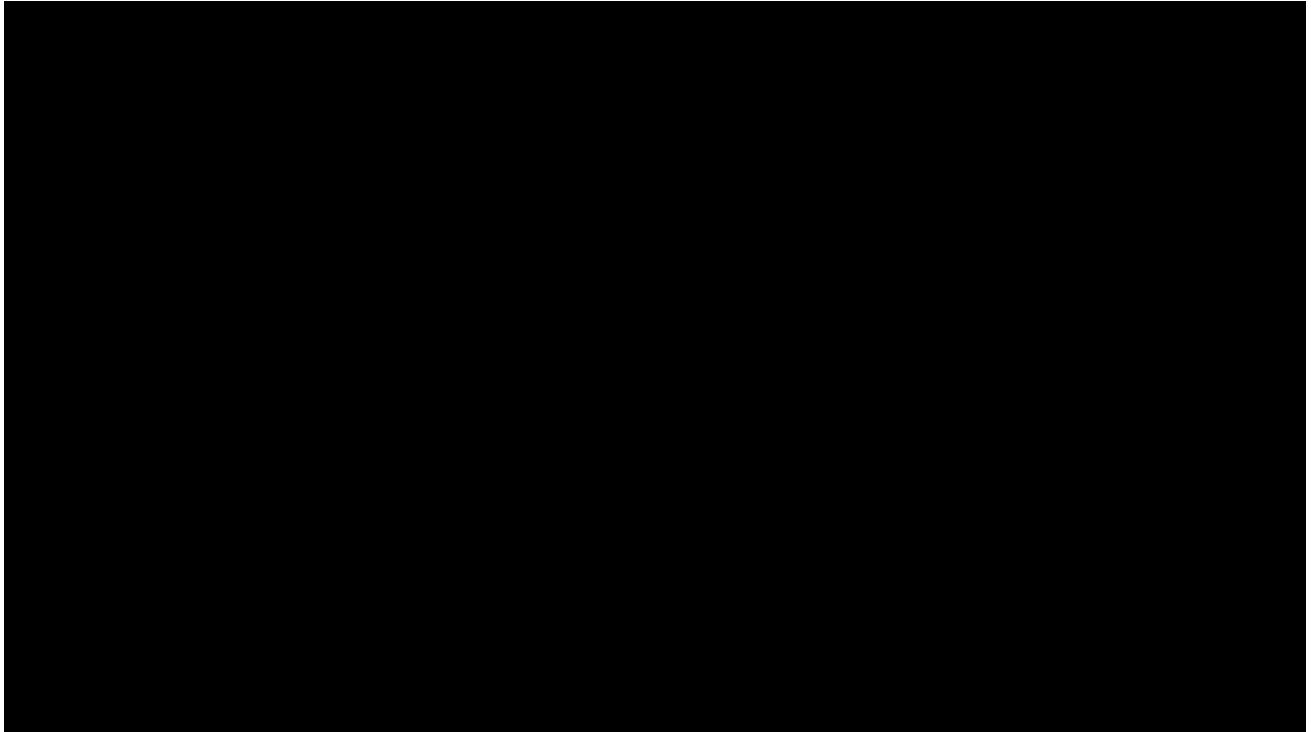
Stratasys in Industry



Legacy Effects



NASA



Stratasys in Education



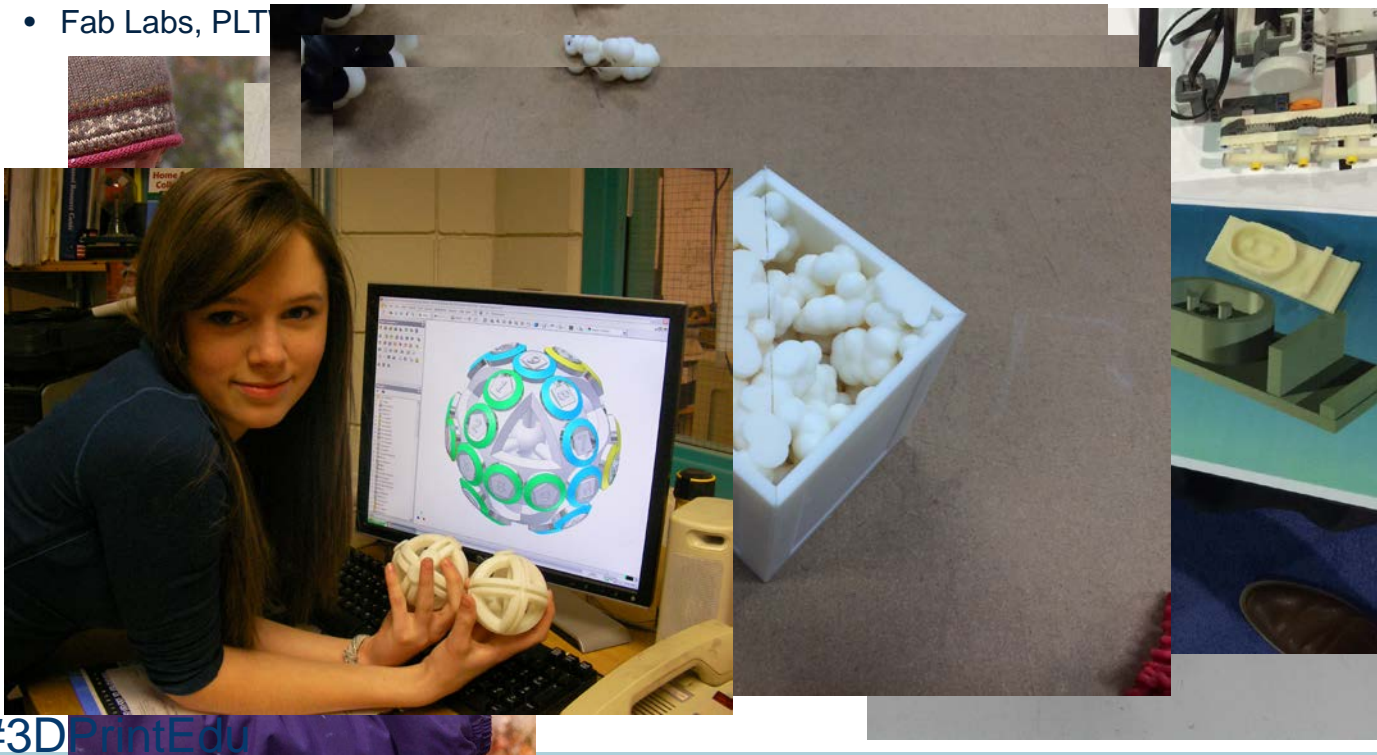
Elementary

- STARBASE
 - National Program teaching STEM to at risk youth



Middle and High School

- Fab Labs, PLT



Middle and High School

- [First Robotics](#)

College and Universities



*Limbitless
Solutions*



Some state lawmakers question AP U.S. Histor...

College and Universities

- Manufacturing, Engineering, Art, Animation, Research, Design and so much more

UCF Video

- <https://www.youtube.com/watch?v=5d0Nsy4M8zg>

- [UVA Video](#)

<http://news.virginia.edu/content/video-razor-uvas-3d-printed-uav>

Middle and High School 3DP Modules

High School Curriculum: A Framework

Designer Toolbox

Introduction to Design
Drawing Standards
Orthographic Projection
Dimensioning
Design Process
Research
Concept
Development
Formalization

Type of Projects

- Architecture
- Engineering
- Product Design
- Transportation Design
- Urban Design
- Gaming/Character Design

Duration of Projects

- Short (less than a week)
- Medium (1 to 2 weeks)
- Long (6 – 8 weeks)

Experience Level

- Beginner
 - Intermediate
 - Advanced

Middle and High School 3DP Modules

Designer Toolkit

Section A

Introduction to Design
Drawing Standards
Orthographic Projection
Dimensioning
Design Process
Research
Concept
Development
Formalization

Section B

Projects

Section C

3D Printing Resources

Stratasys High School Project

Chess Set Project Design Brief

Type of Project: Product Design

Duration of Project: 2-3 weeks

Level: Advanced

Intended Grade: 12

Objective: Design and 3D Print a Chess Set

History of Chess

The Goal of Chess

College - Certificate

- Dunwoody College Developing Additive Manufacturing Certificate
 - Complimenting Design and Manufacturing Degrees

Course Number MDES2110

Course Title Product Design Lab

Course Description

Introduction to product design methods and concepts; converting product ideas and requirements into working designs. Design balance and relation to concepts such as aesthetics, performance, ergonomics and manufacturability.

Total Credits 5.00

Total Hours 270.00

Course Number MDES2120

Course Title Product Design Theory

Course Description

Integrate methods and concepts of product design to actual designs of simple products. Determine design parameters, develop product opinions, narrow the focus for balance, and document the final design.

Total Credits 4.00

Total Hours 72.00

Student Project: Putter DESIGN

Solidworks Design

3D Pattern

Follow board

Foundry work

Finishing



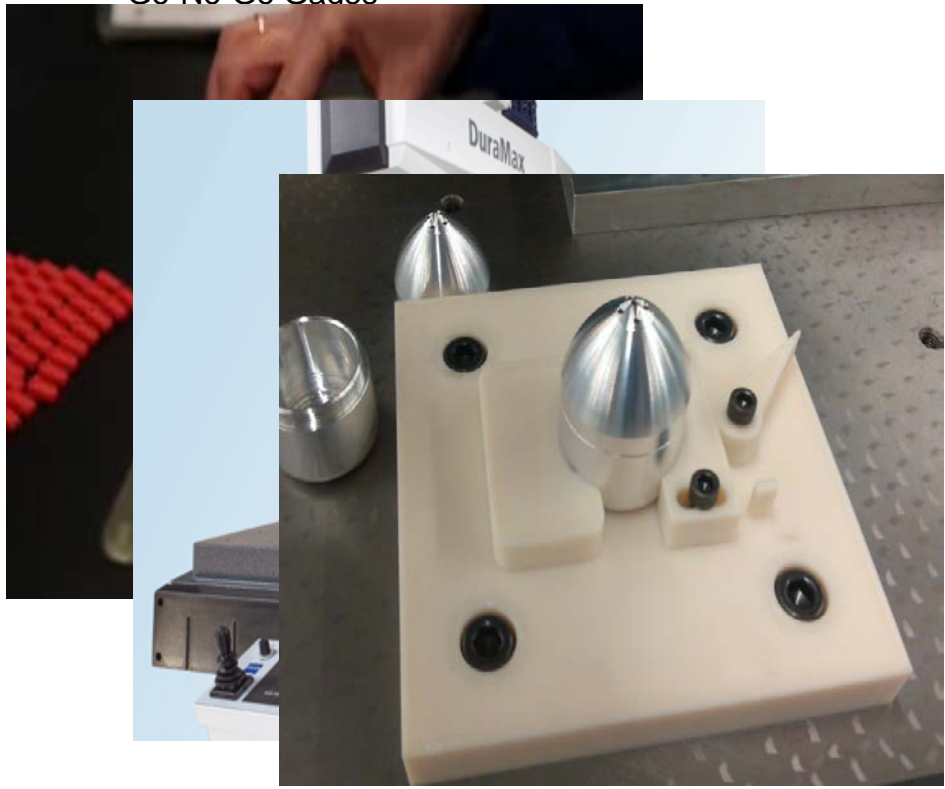
Student Project: Robotics EOAT

Student designed
Custom end of arm tooling



Student Project: JIGS & FIXTURES

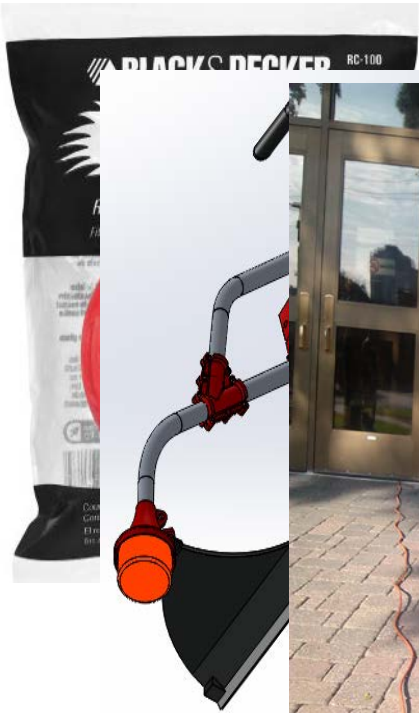
Go-No-Go Gauges



We make it visible.

STUDENT Project: Weed Whacker

Purchased parts
Solidworks
Ergonomics
Functionality



University

- 15 Week Class
 - Just released in Dec
 - Downloaded over 1000 times
 - Taught at UMN, Wentworth Univ and Shanghai Univ
 - Most groups are taking portion of the curriculum and teaching sections

Summary

Stratasys is investing in the future of our nation

Stratasys is committed to:

- Developing content from K-20
- Investing and delivering
- Linking education and industry





Thank you

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