

Project Ideas

Project	Notes
3mm MDF jigsaw puzzle	Image manipulation, print, glue image to mdf, laser cut
Foam Core / Balsa planes	Laser cut, cutting paths, CAD/Vector, modify existing plans
3D printed city / tower (SimCity)	Set template, context freedom
2D pixel art	tower/town using starter template
Acrylic badges	UV reactant, laser cutter, vector
Glow-in-the-dark themed projects	Vinyl cutting - images or stencils (UV paint) Acrylic laser cutting 3D printing
EVA foam masks	Lighting - LED, el-wire UV 3D components UV paint
Halloween masks	
Costume / CosPlay Wearable Devices Outline	EVA foam / Foam Smithing Plastic / 3D printing Card / Folioboard Paints / Airbrush
Programming (Python) <ul style="list-style-type: none"> - Quiz - Interactive Story 	Variables Input Conditions Loops Lists
Web Design <ul style="list-style-type: none"> - Basic web site - Basic dynamic elements with CSS - Embedding Video 	HyperText Markup Language Cascading Style Sheets Content Structures
Design a sticker (or tshirt vinyl cut)	Vector illustration Cutting paths Vinyl cutting
Toy Design or Movie Prop	Box modelling Primitive modelling Manifold models Physical prototyping
Toy Design Packaging	Vector paths Creating 3D objects from 2D (folded

	packaging) Graphic design (vector/raster) Registration of cutting paths and imagery Physical prototyping
Product Advertisement	Video Editing Vector/Raster images Audio recording and production Timelines and tweening Materials and textures
Movie prop (An alternative to packaging)	Physical prototyping Digital patterns in 2D and 3D 3D structures
Interactive Story Shopping List Pizza creator	Programme design: structure, decomposition Variables Strings and string formatting Operators Conditional statements Lists Functions For and While Loops
Database	Database Design Data Structures Data Entry Querying a database Connect to Python
Design a dynamic web site Outline	Flask (template-driven sites) SQLite database HTML Templates
Robot that performs a set task (lifting an object, water a plant, send a notification)	Arduino / Microbits Servos Motors Control programming
Skateboard Deck Design	Graphic Design: Raster Print registration Vector Cutting paths Vinyl Cutter
Car Decals	Graphic Design: Vector Print registration Vector Cutting paths Vinyl Cutter
E-Textiles: Children's toy	Textile fabrication Programmable electronics Sensors
Jewellery	Graphic Design: Vector

	Vector Cutting paths Laser Cutter
Interactive Children's Story	Graphic Design HTML/CSS jQuery
Stage Design	3D Modelling Lighting Animation Video Editing
Wearable Device	3D Modelling Graphic Design CAD 3D Printing
Promotional Material	Graphic Design Print Screen 3D Modelling Animation
Dynamic Web Site (Pizza Ordering)	Programming Databases Web Interfaces (HTML templates, CSS, jQuery)
Video Game Packaging	Graphic Design 3D Modelling Print Flat pack design / folding construction
[Mini] Arcade Machine	Raspberry Pi Electronics CAD / 3D Modelling Graphic Design
Toy Design	3D Modelling: Sculpting 3D Printing
Board Game Design	3D Modelling 3D Printing 2D Graphic Design 2D Printing
Tabletop Miniature Design Outline	3D Modelling (or HeroForge) 3D Printing (DLP/Resin) Laser cutter (terrain) Graphic Design (character sheets)