

(set your own goal)

Design and 3D

print something

with electronics

Make a line

following robot

Create a flip

blook

Control multiple

LEDs with Arduino or

Microbit

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Blink an LED

with Arduino or

Microbit

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Learn to use

wire strippers

Get a circuit

Make a circuit

with a motor

لها

Make something

with layers of paper

## Skill Tree: Color in the Boxes

Color in the boxes of anything you've already completed, visualize your skills and identify your skill gaps. Get inspired to try new things and tailor the skill tree to suit your own journey by swapping in your own goals.



(set your own goal)

Do a wearable

tech project

Use a sensor in

an Arduino project

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Use a green

screen in a video

ightharpoonup

Hand sew on a

button

Create something to address one of the Sustainable Development

Goals

Create a model in an

engineering software eg. Fusion 360, OnShape,

Solidworks or others

Use a laser

cutter

Control a servo

motor with Arduino or Microbit

 $\odot$ 

Make a circuit that

includes a button or

switch

Make something

out of timber

Make a model

from a sketch in

TinkerCAD

T I N K E R C A D

Learn the difference

between parallel and

in-series circuits

a breadboard

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Design, print and assemble something with multiple parts

Learn how to hand

embroider or cross stitch

Use a vinyl cutter

for a project

eg. Cricut, Brother Silhouette

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Learn different

types of hand stitching

Craft a car with

wheels that move

Fix something

that's broken

Take apart some

e-waste and see

what's inside

3D print a model

from Thingiverse or

**Printables** 

Learn to edit

a photo

Learn to

use cutting tools

safely

(set your own goal)

Make a robotics

Enter a STEM or

Robotics competition

eg. Robocup

project 

Make something using a sewing

machine

Design and 3D print something

Make an automata

of your own design

Learn how to knit, crochet or weave

Make something to fix a problem

Learn to use a soldering iron

Learn to plot

data on a graph

Make something

with origami

Make something from upcycled materials

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Make a circuit that lights up an LED

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Teach a friend a STEAM skill

(set your own goal)

with a Raspberry Pi

Learn a vector

artwork software,

eg. Illustrator, Affinity or

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Make a project

Create an animation

Contribute to a big project

or stop motion video \*\*\*\* Measure voltage

with a multimeter 

Control an Arduino or Microbit

with Scratch  $\infty$ 

Make a pop-up card

Prototype

something in cardboard Make a simple

> game in Scratch Simulate

code in TinkerCAD T I N K E R C A D

Use folding and cutting to make

a paper snowflake \*\*

Navigate a Beebot around at least 4

objects 

Use a mitre box

to cut timber to size

**(4)** 

with popsicle sticks

Make something

Do an activity

in Scratch Jr.

Make a kite

that flies

1 tile = 1 point

**Total Score** 

**START HERE** 



Make something special for a friend

Record & edit a video

▶

wrong and try again Complete an

obstacle course with a robot eg. sphero / Lego mindsorms

Make something that moves with Lego

Learn to use a box cutter safely









card with a ruler

























Name: .