

# STEAM STARTER KIT

**ONBOARDING**



**LEARNING  
PLATFORM**

For activities, lesson plans and support material please go to:

[learning.strawbees.com](https://learning.strawbees.com)



# WELCOME TO STRAWBEES BUILDING ONBOARDING

## You will learn about:

- The different types of connectors and how to make joints
- Different straw lengths
- Building operations
- Making beams and shapes like building blocks
- Mechanisms for linkages and machines

## You will need:



1-leg  
connectors



2-leg  
connectors



3-leg  
connectors



5-leg  
connectors

Yellow  
straws



Orange  
straws



Pink  
straws



Green  
straws



Blue  
straws



# CONNECTORS

You can build structures, mechanical projects, and robots starting with these 4 connectors.



1-leg connector



2-leg connector



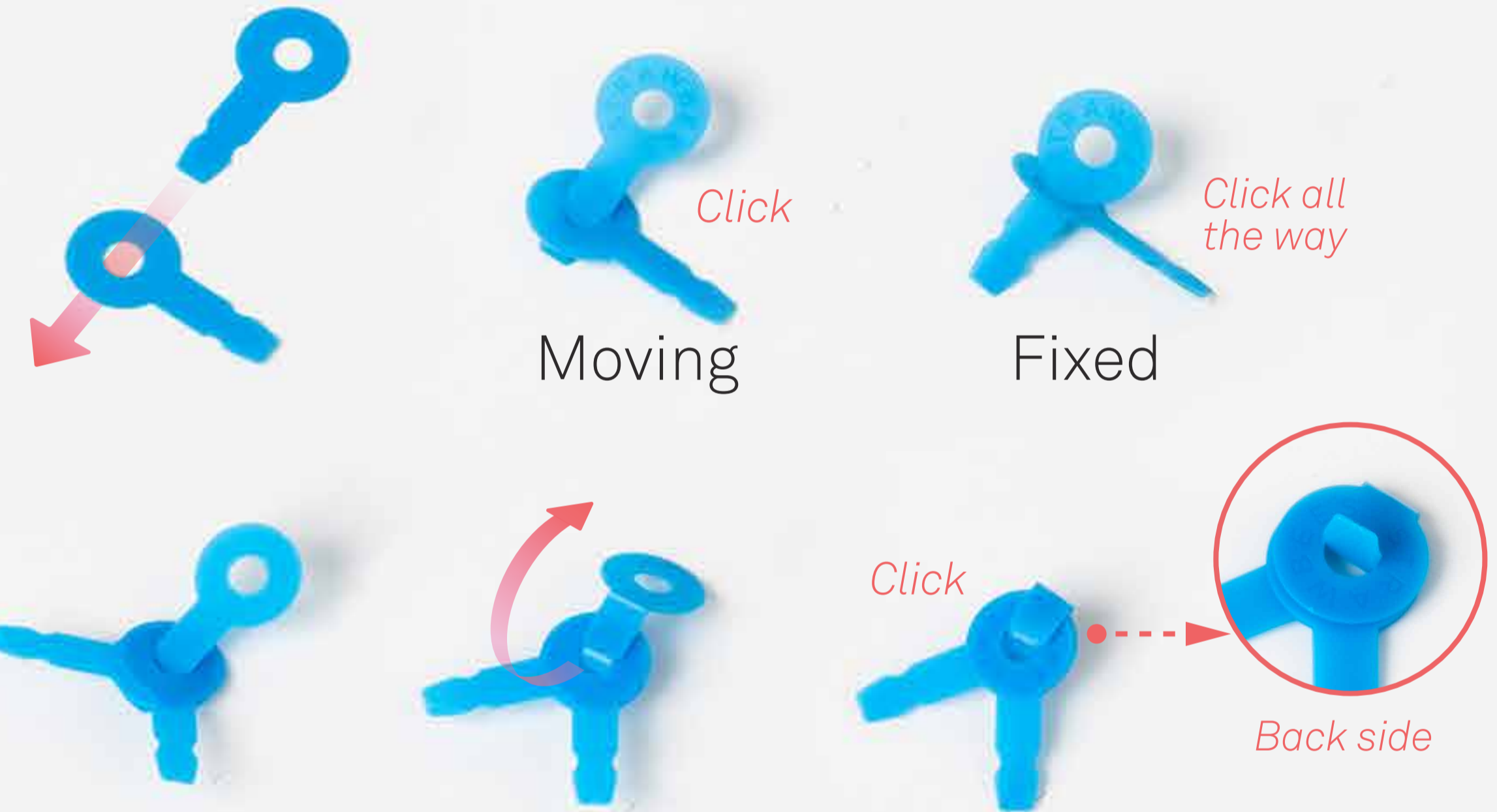
3-leg connector



5-leg connector

## Joints

Combine connectors to make both moving and fixed joints by clicking a leg into a hole.



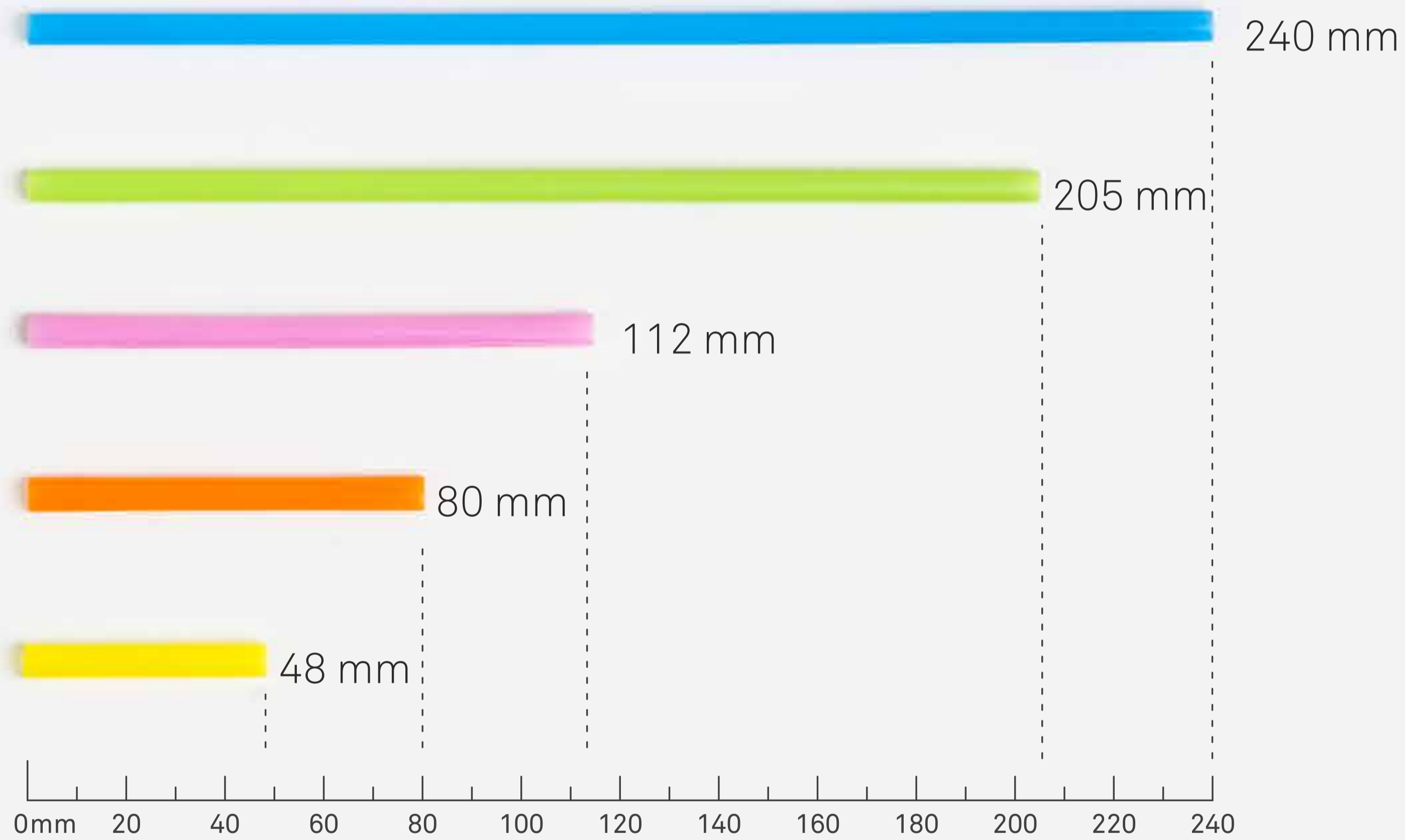
You can make connectors with a variety of legs!





# STAWS

## Straw lengths



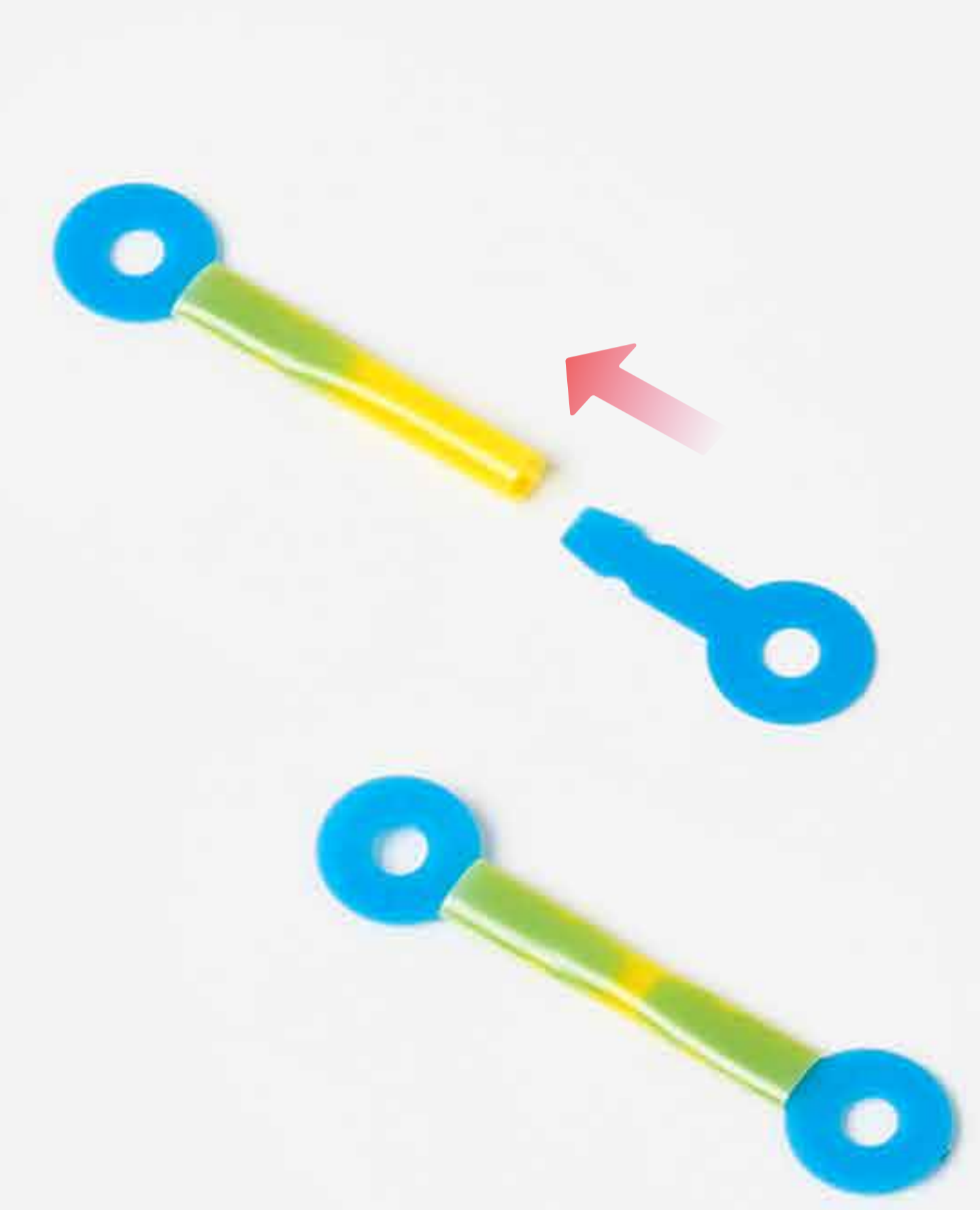
## Color-Coded Instructions

All pieces are color-coded for following step-by-step instructions or looking at a single image as reference.



# BUILDING OPERATIONS

Fit



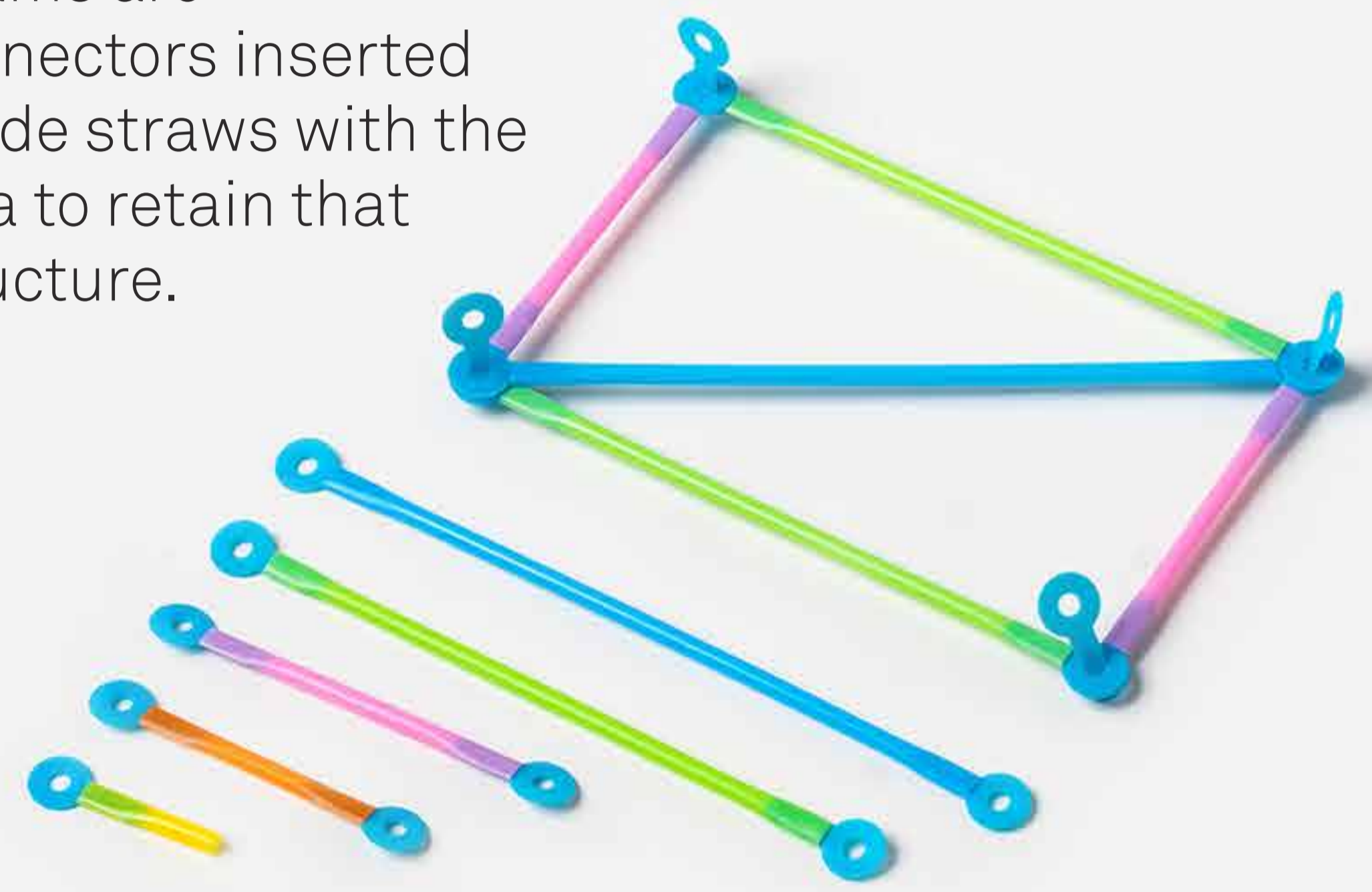
Slide



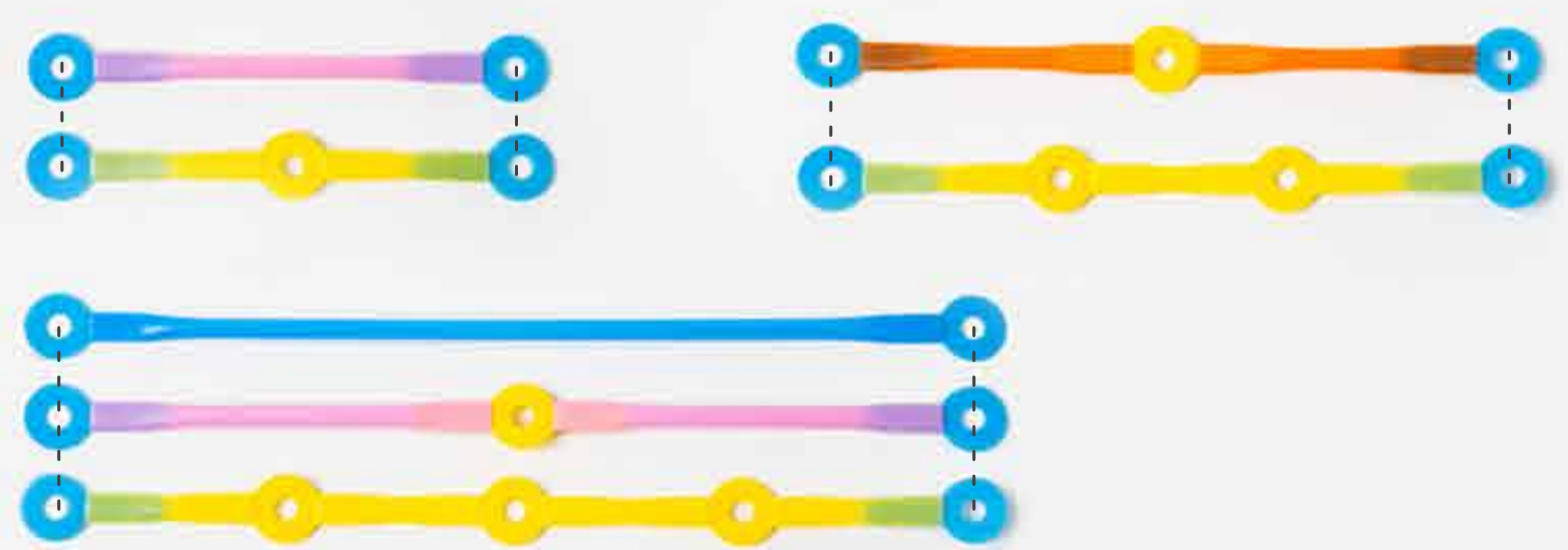


# BEAMS

Beams are connectors inserted inside straws with the idea to retain that structure.

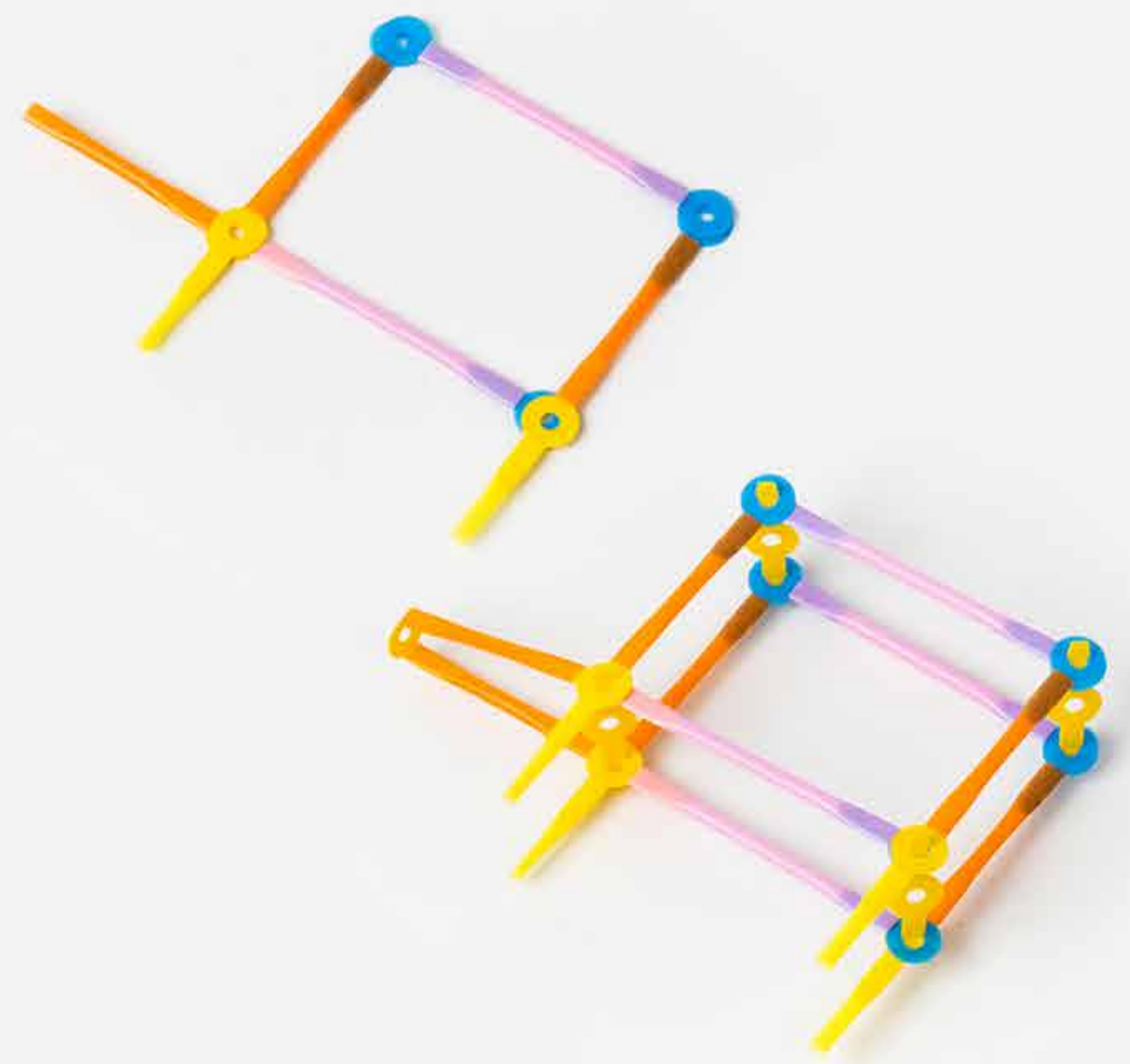


Change the pieces of within the beam for building variety.



## Building with Beams

Align holes of the beams and click to make joints.



A structure can be made in both 2D and 3D with motion. Click another set of beams for a second side of the structure.

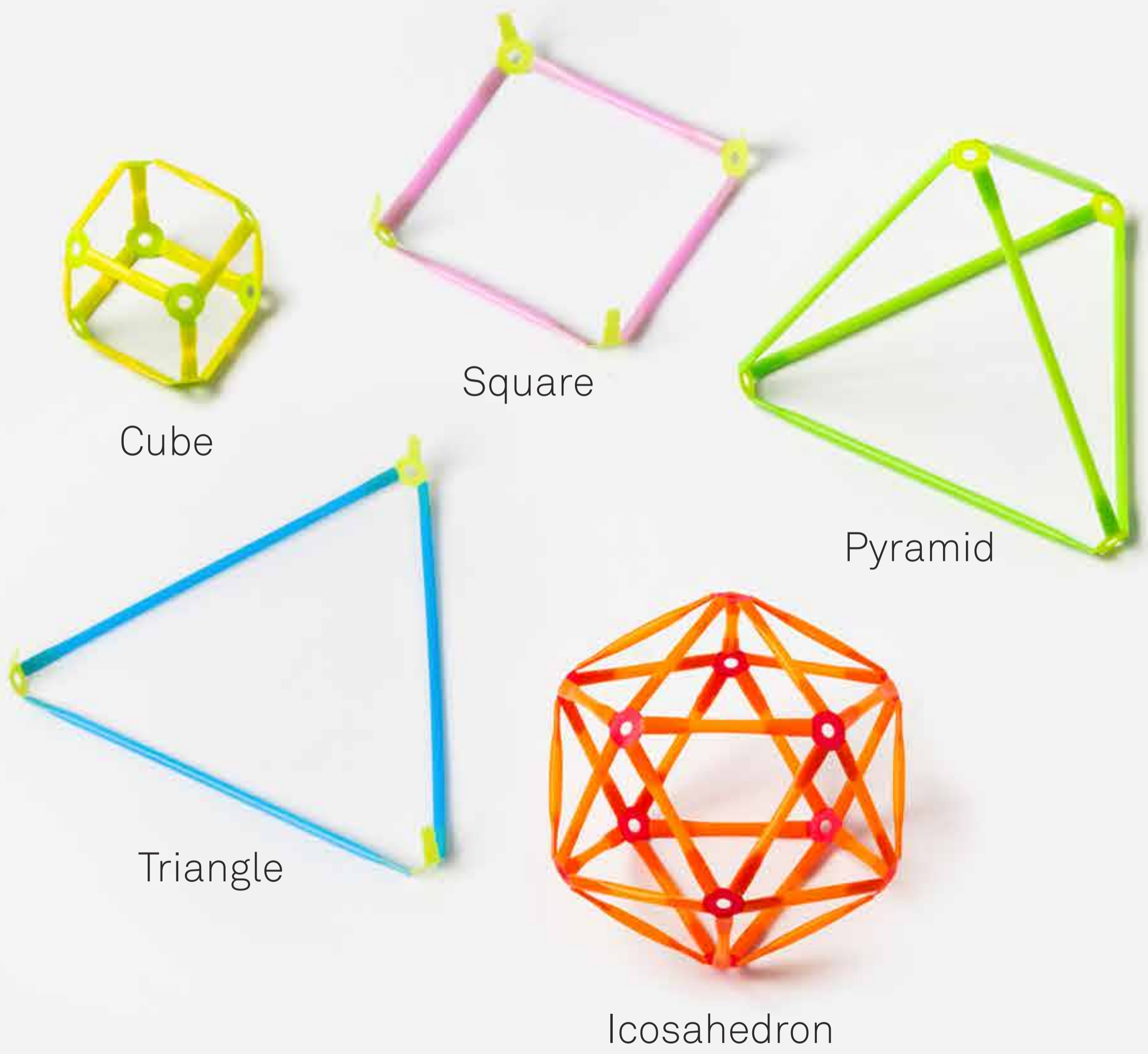


# SHAPES

Many project instructions use geometric shapes as basic structure to build from.

## Scalability

Assemble a set of shapes like building blocks.

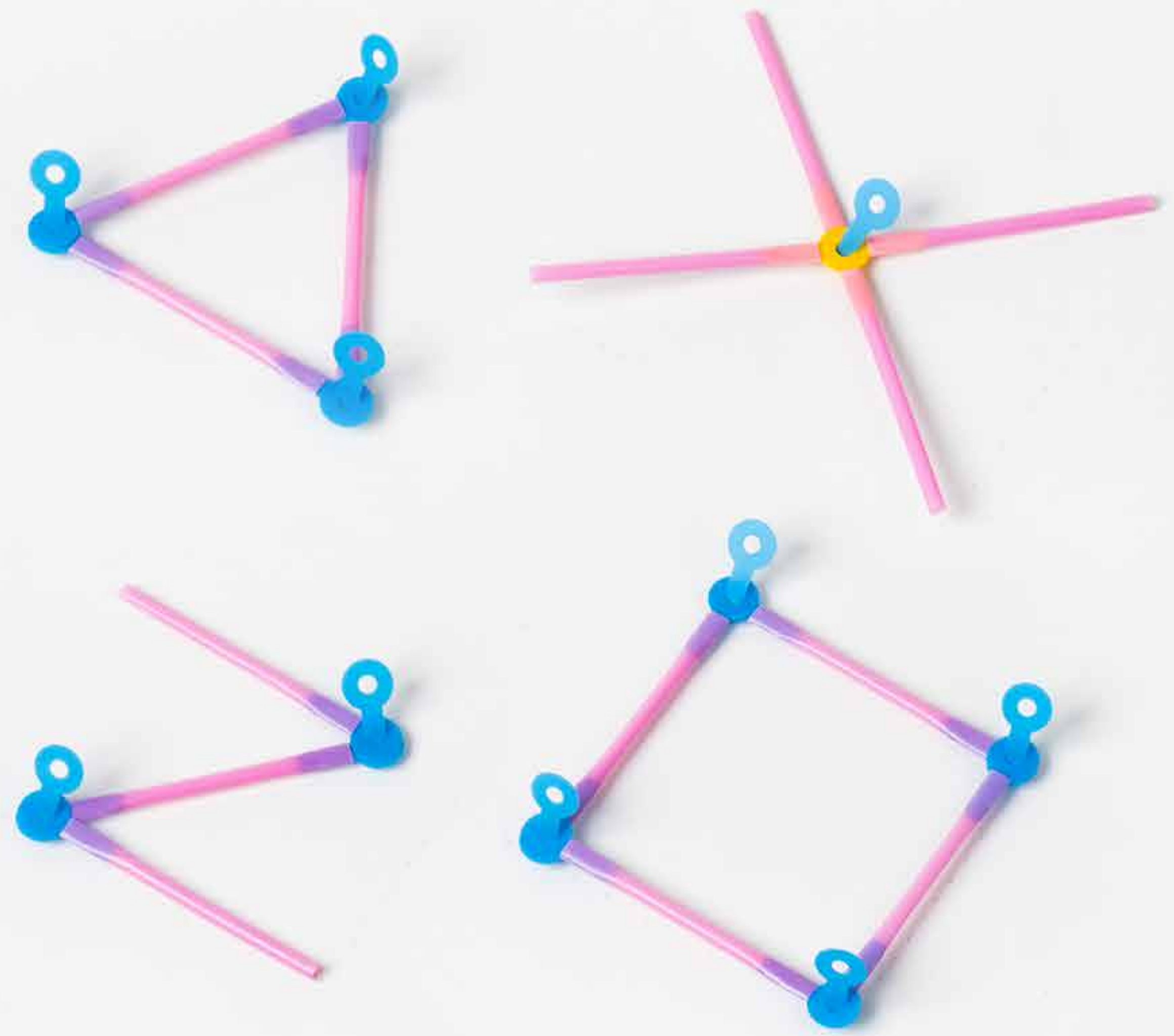




# MECHANISMS

## Linkages

Connect beams with moving joints together to create a mechanical linkage.



## Machines

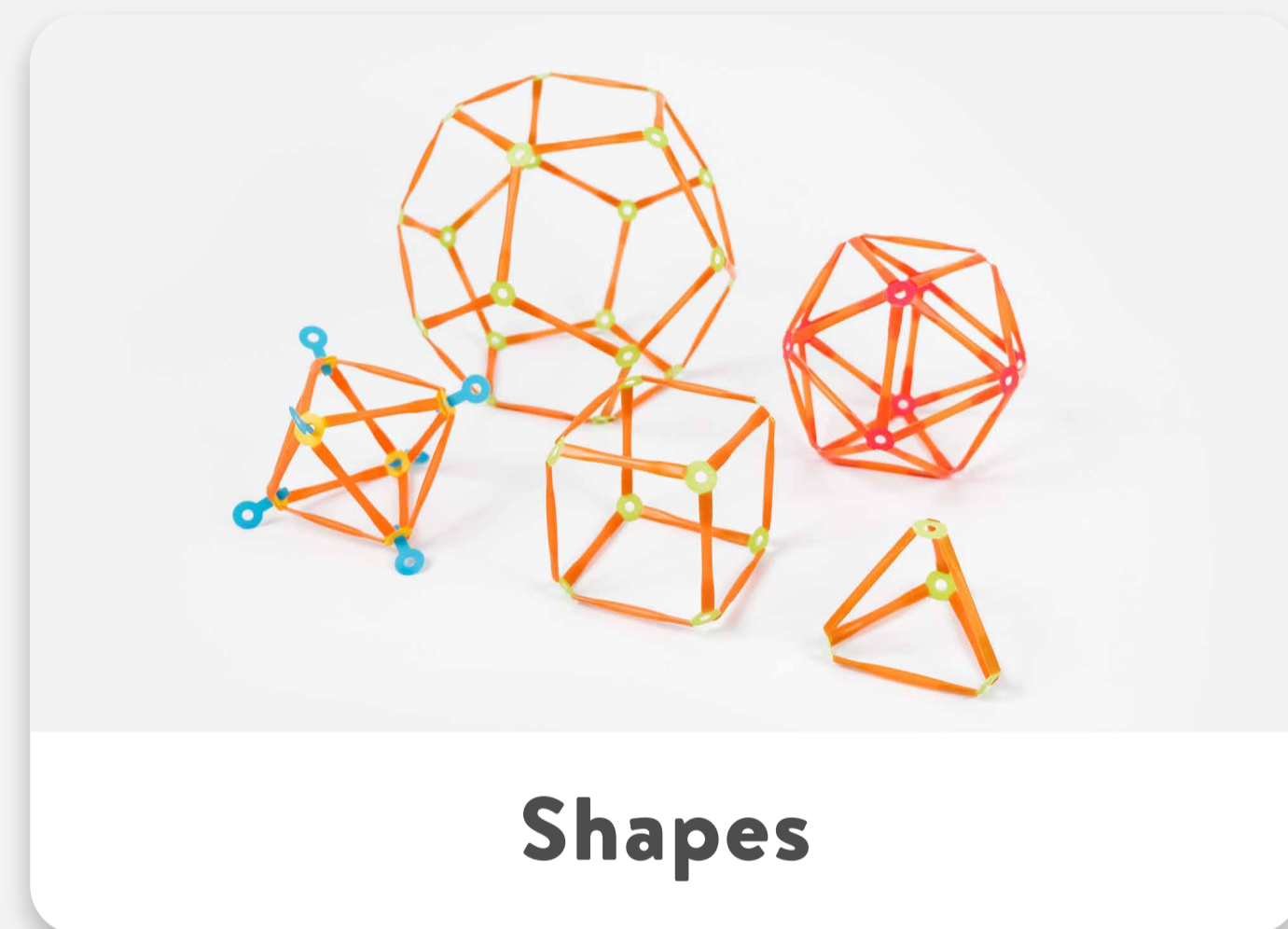
Combine geometric shapes, building operations and mechanisms can make marvelous machines.





# ACTIVITIES

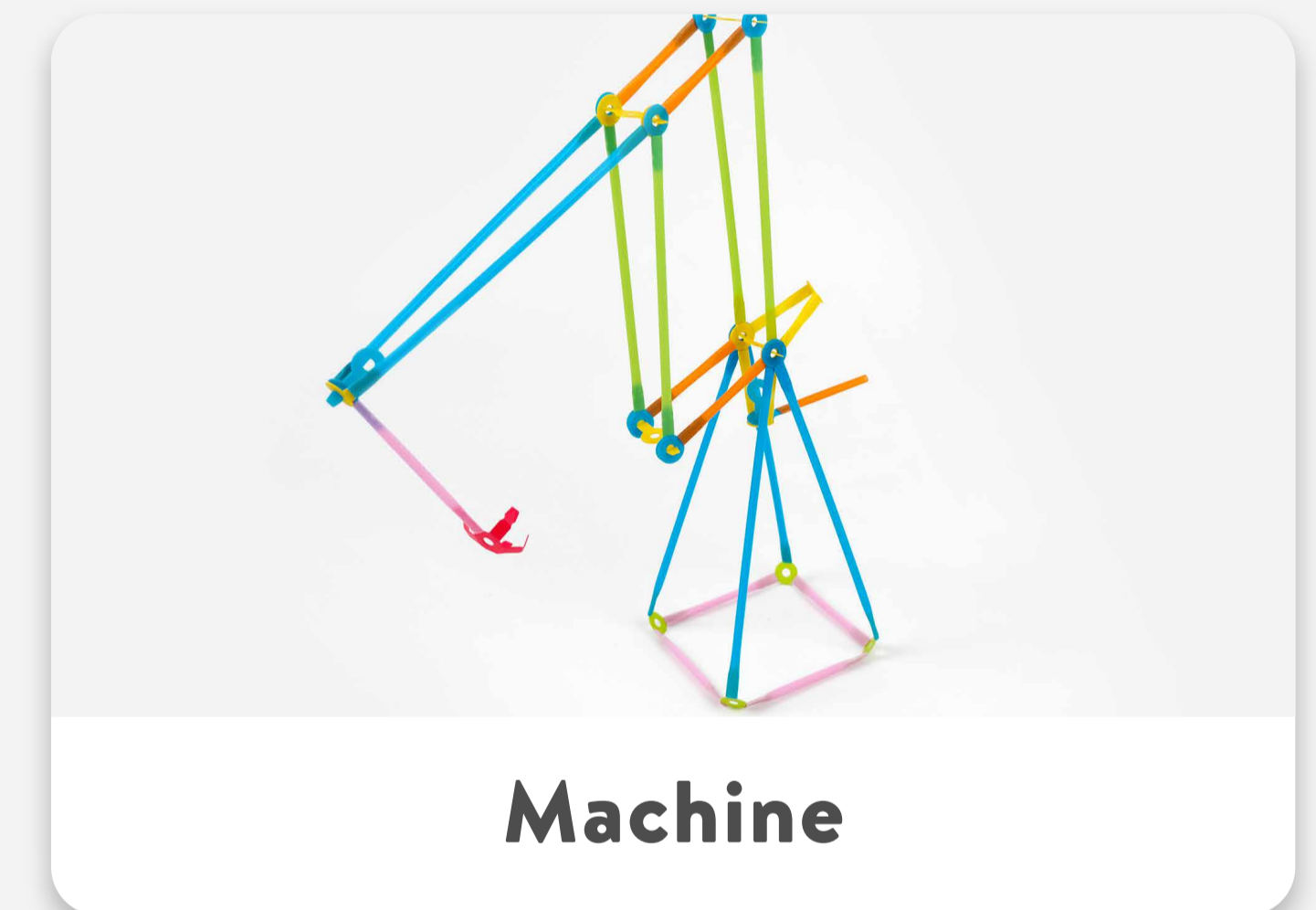
Get started building with these 3 activities on Strawbees Learning. The building instructions are featured in the STEAM Starter kit booklet.



[learning.strawbees.com/activity/build-the-platonic-solids/](https://learning.strawbees.com/activity/build-the-platonic-solids/)



[learning.strawbees.com/activity/make-a-mechanical-arm/](https://learning.strawbees.com/activity/make-a-mechanical-arm/)



[learning.strawbees.com/activity/build-a-mechanical-crane/](https://learning.strawbees.com/activity/build-a-mechanical-crane/)



# GRADUATED!

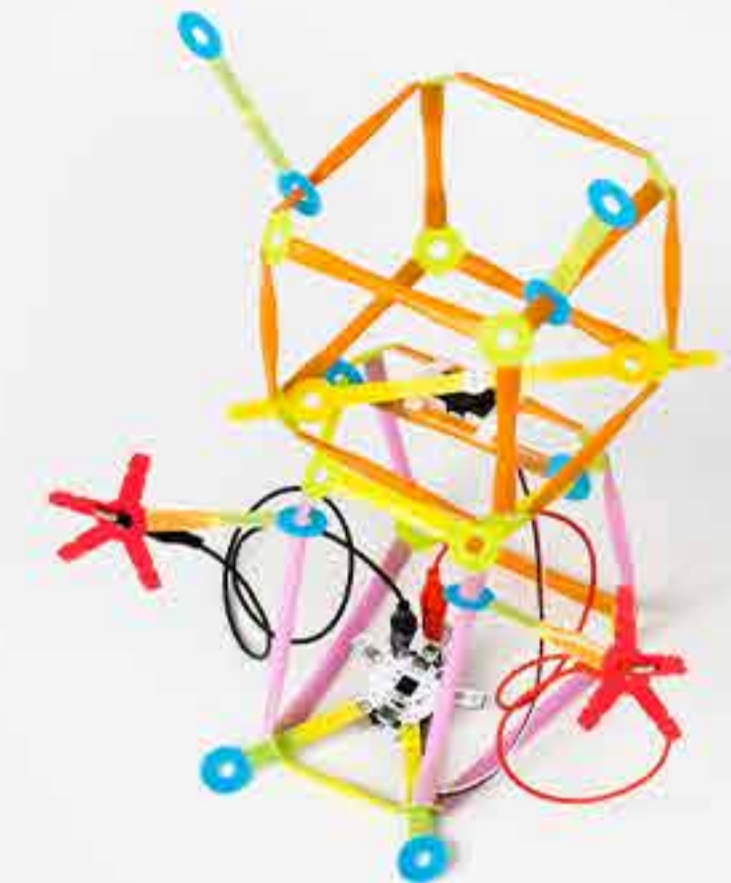
## Now you know how to:

- Make joints from the different connectors.
- Use the building operations with different straw lengths and connectors.
- Use color-coding to read instructions.
- Create beams and shapes to be used as building blocks.
- Build linkages and machines.

## Next steps:



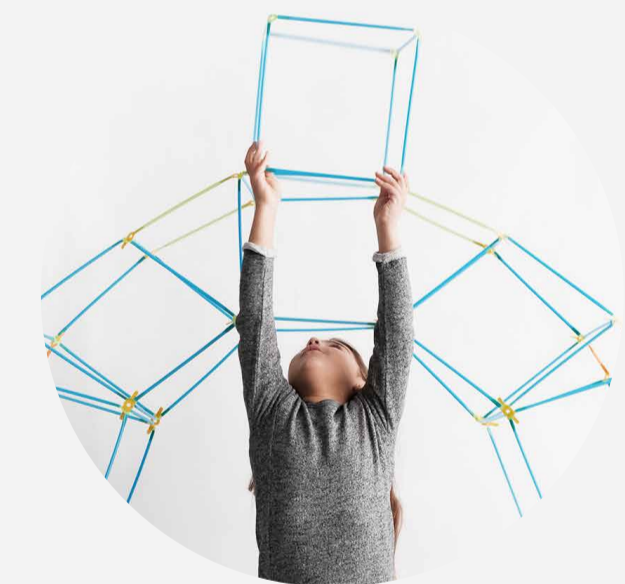
Invent a new version of a simple machine



Create a robot playmate with many expressions



Create a new place to play



Make something big and lift over your head!

For more information about the STEAM Starter kit, please visit:  
[learning.strawbees.com/product/steam-starter-kit/](https://learning.strawbees.com/product/steam-starter-kit/)