

BUILD YOUR OWN PINBALL MACHINE

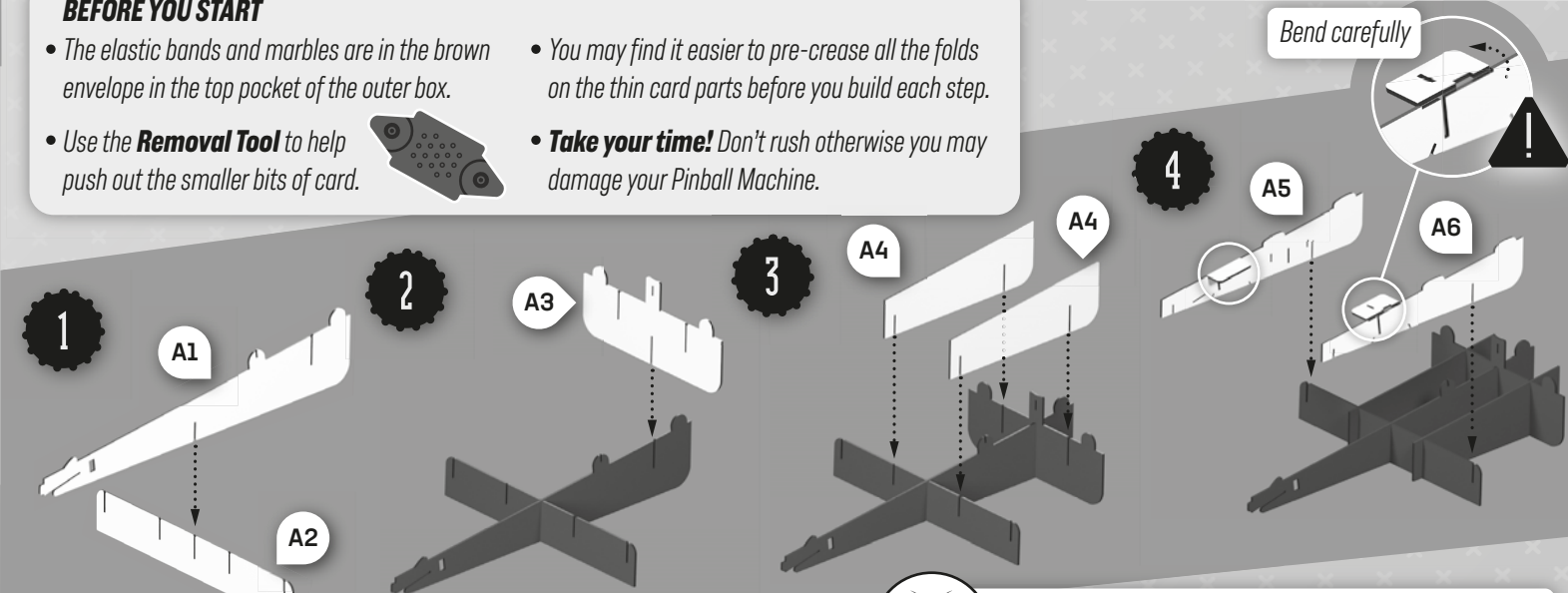
INSTRUCTION BOOKLET 1

BEFORE YOU START

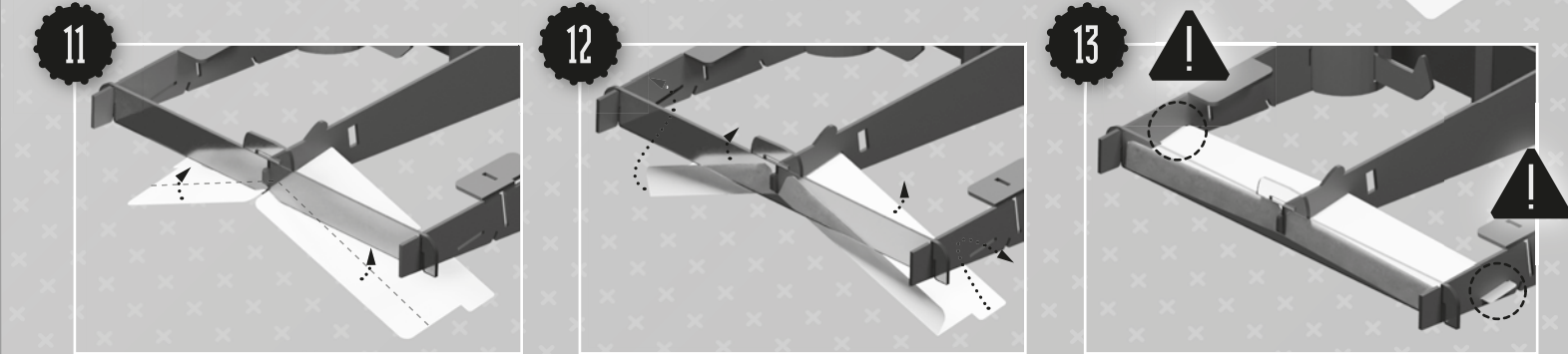
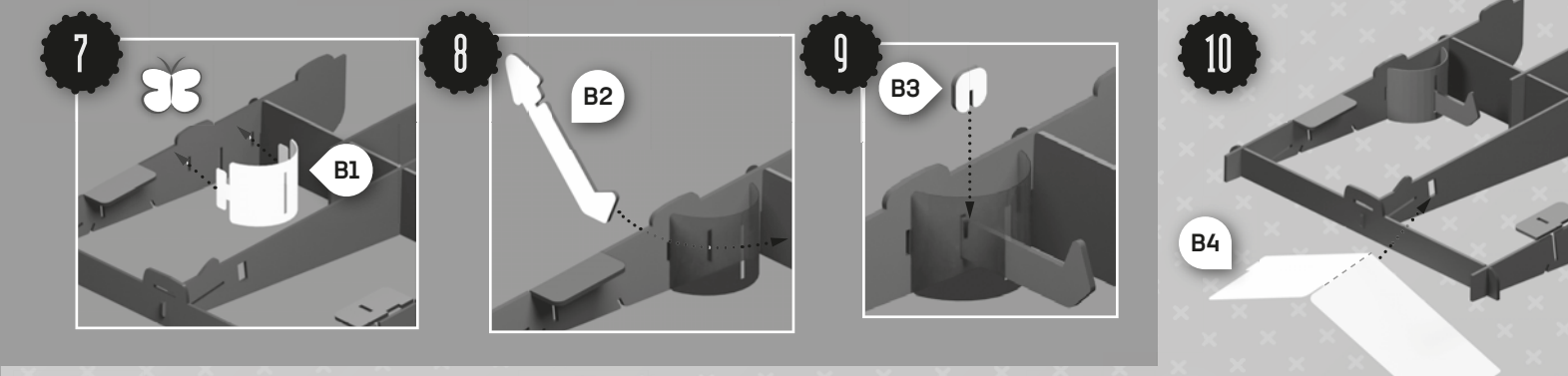
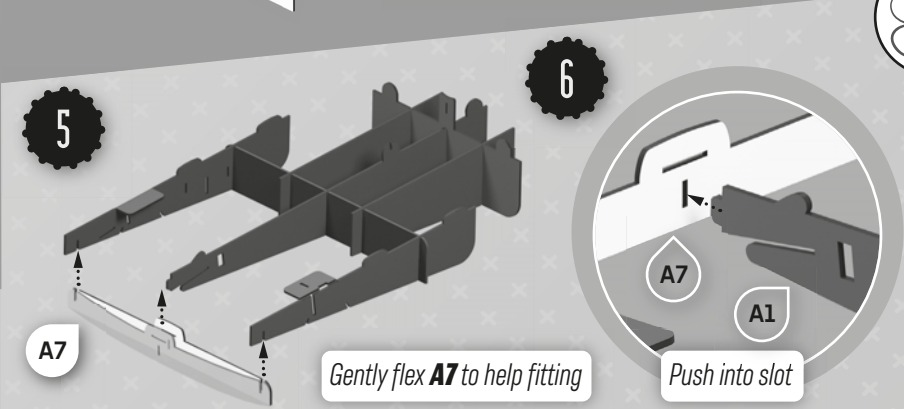
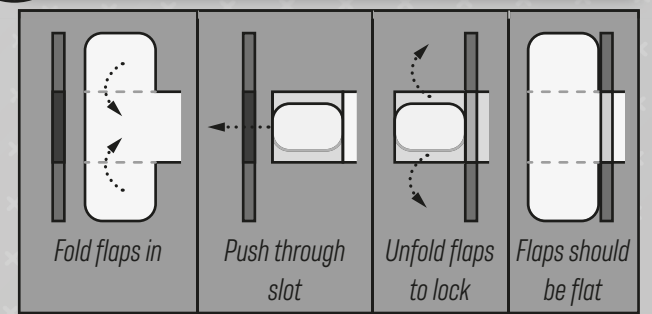
- The elastic bands and marbles are in the brown envelope in the top pocket of the outer box.
- You may find it easier to pre-crease all the folds on the thin card parts before you build each step.
- Use the **Removal Tool** to help push out the smaller bits of card.
- Take your time!** Don't rush otherwise you may damage your Pinball Machine.

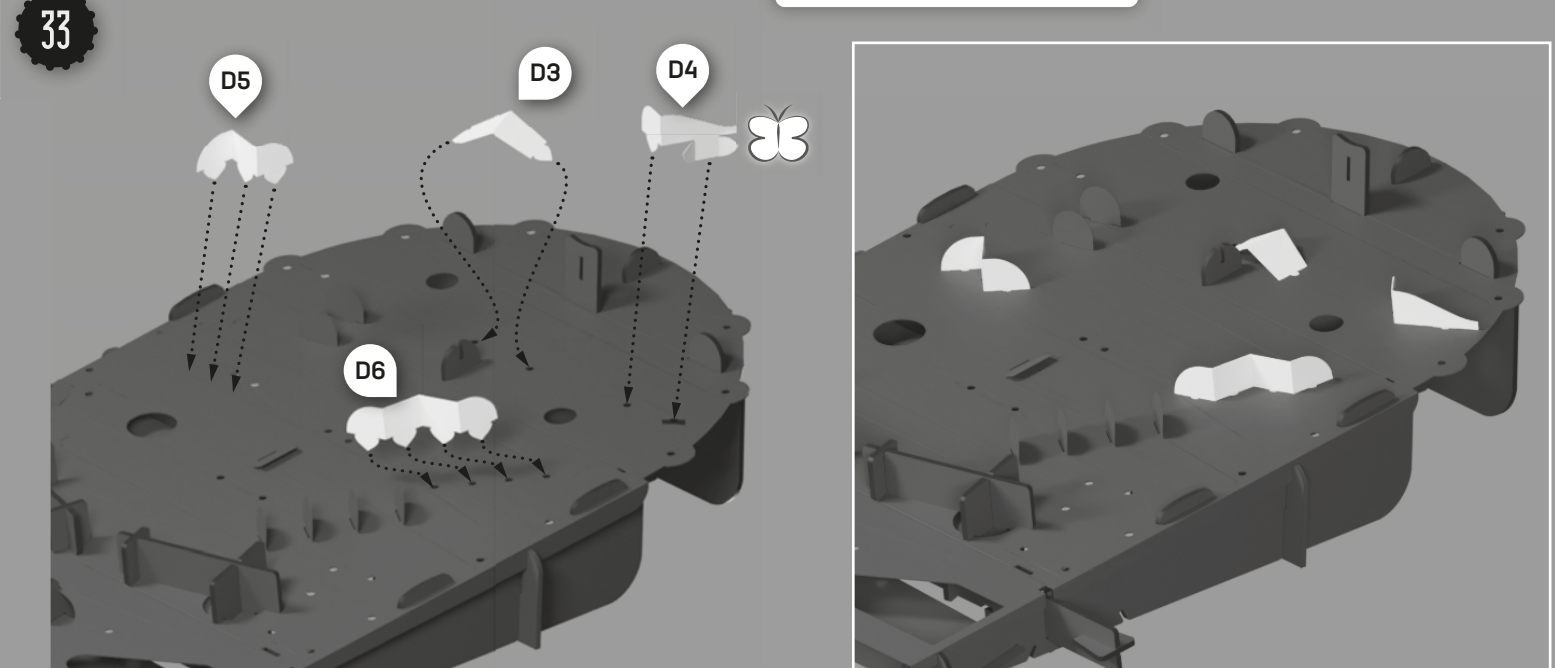
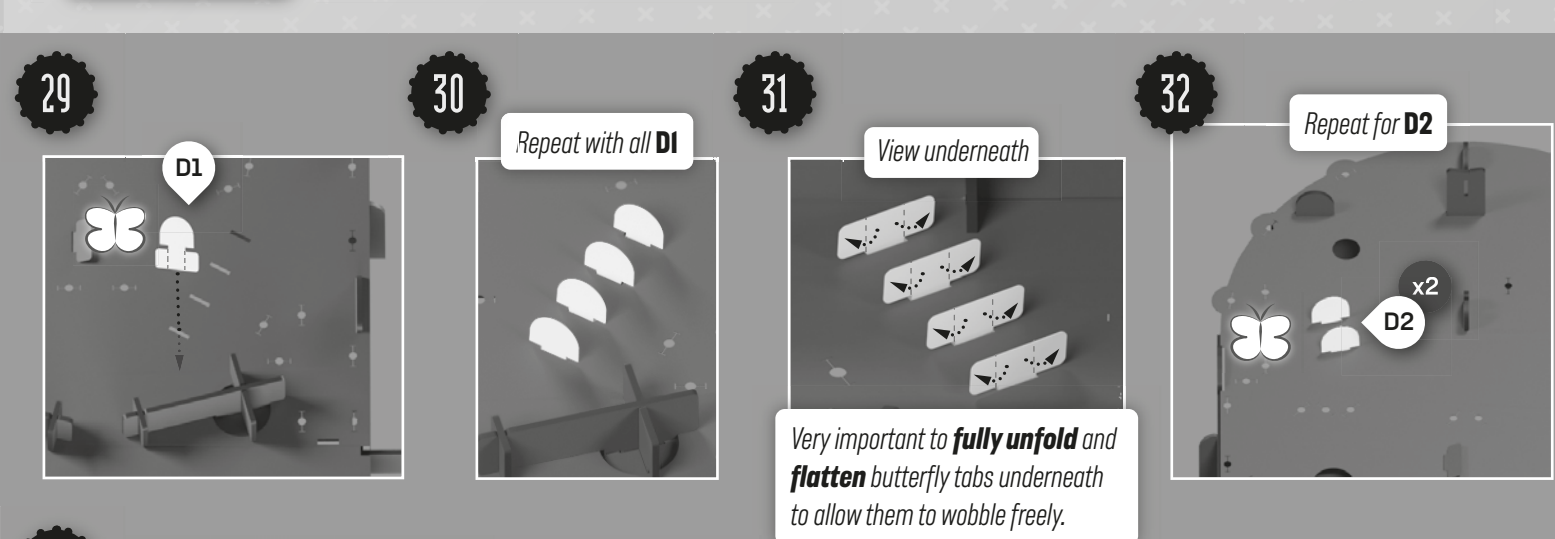
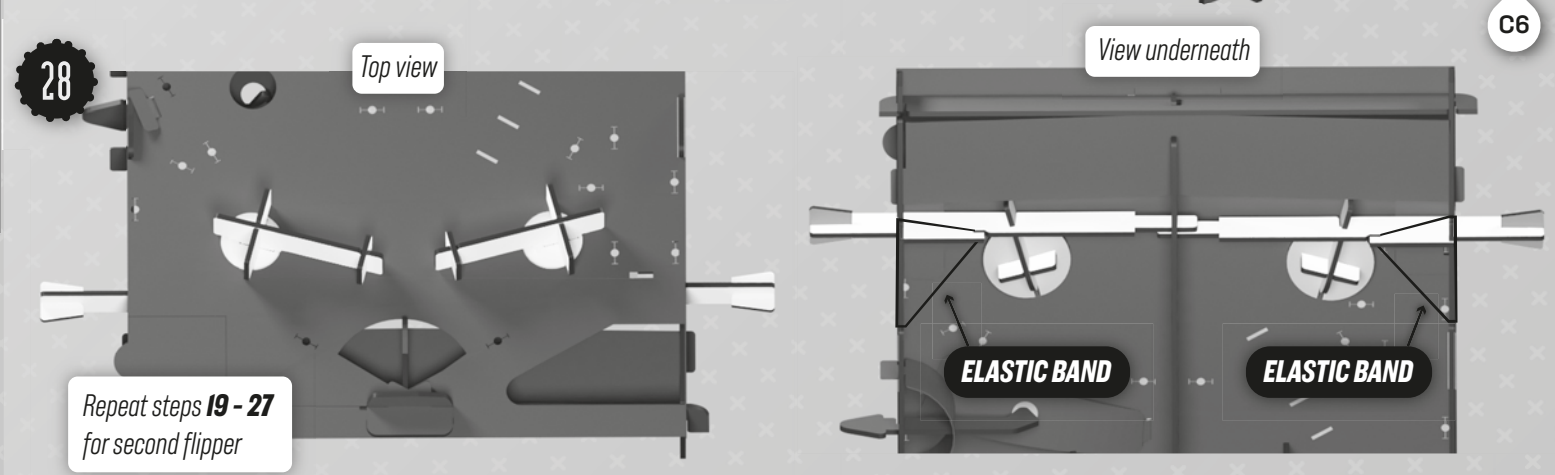
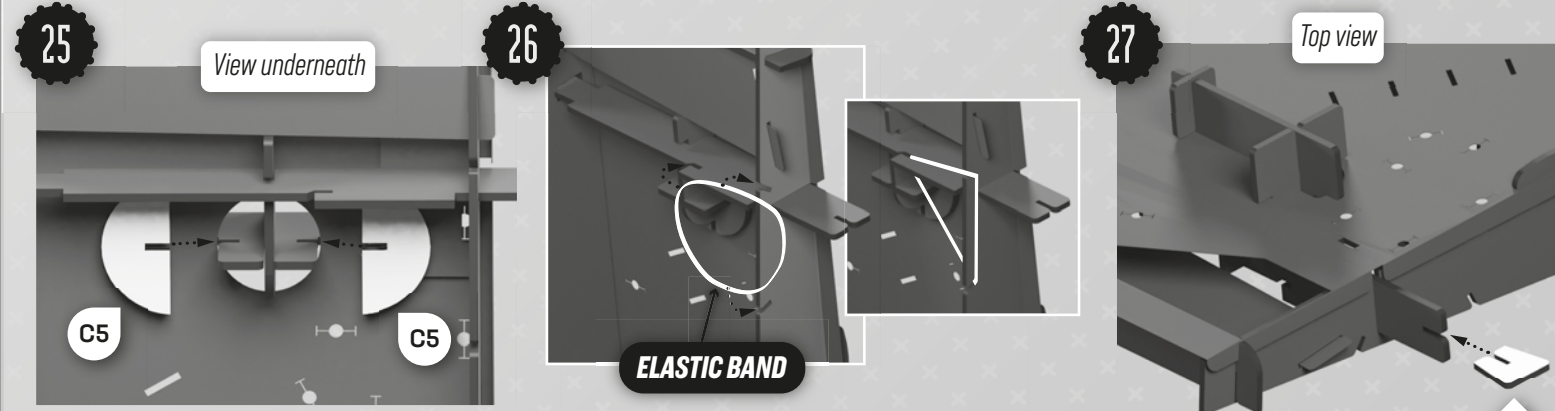
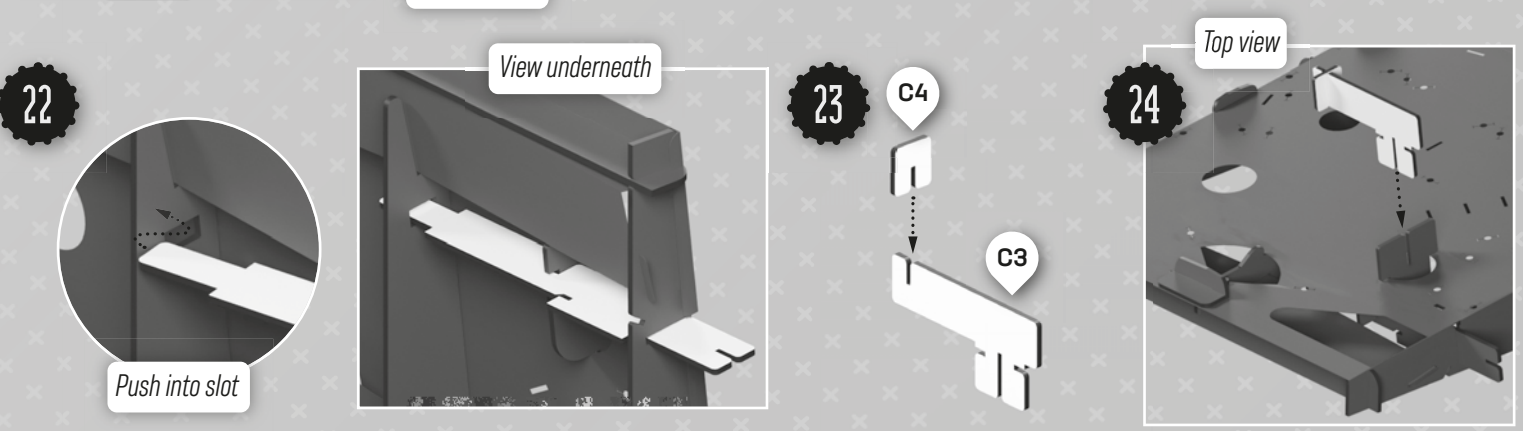
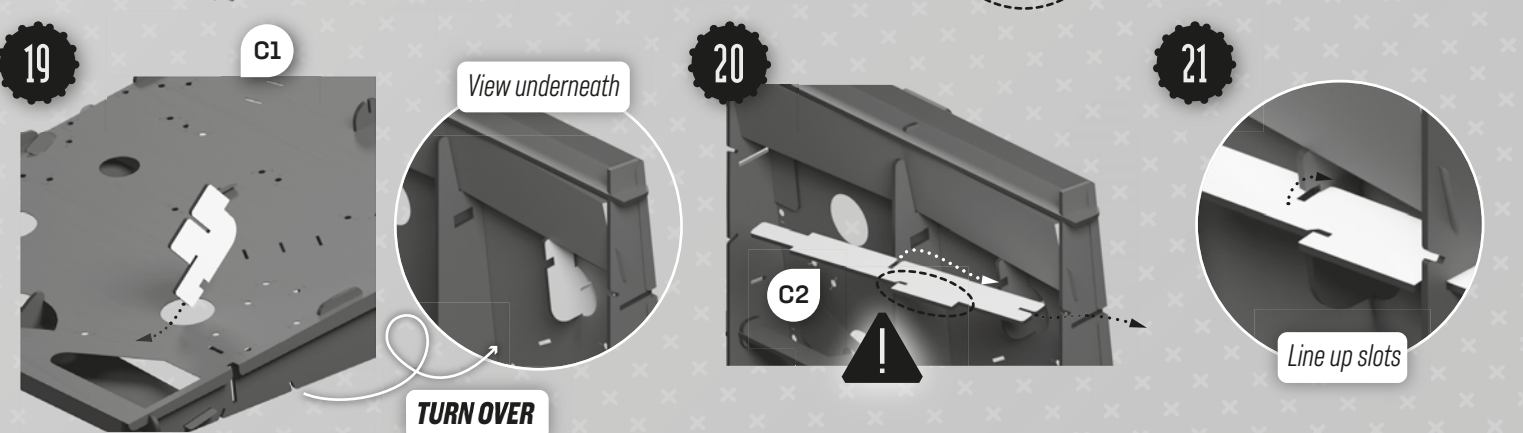
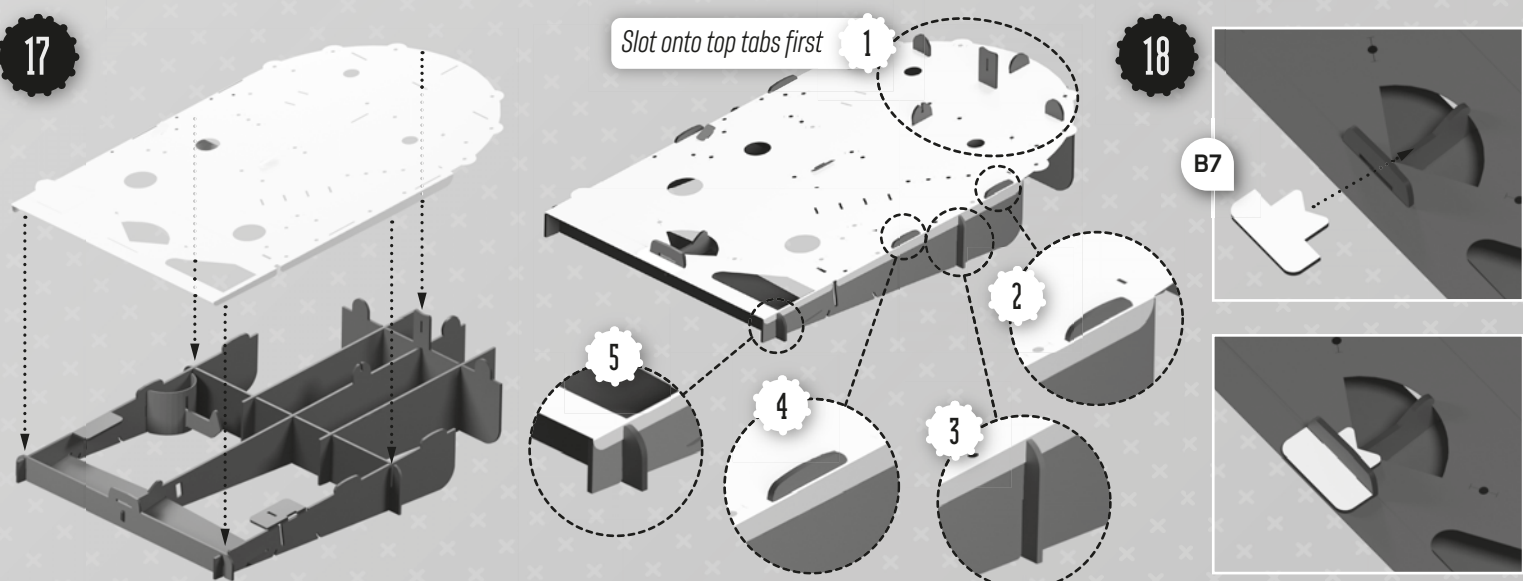
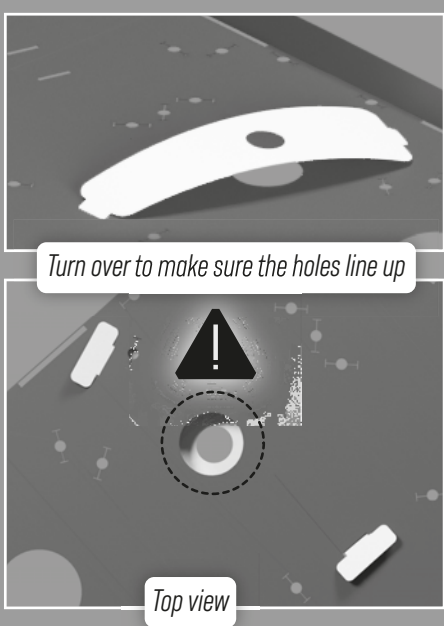
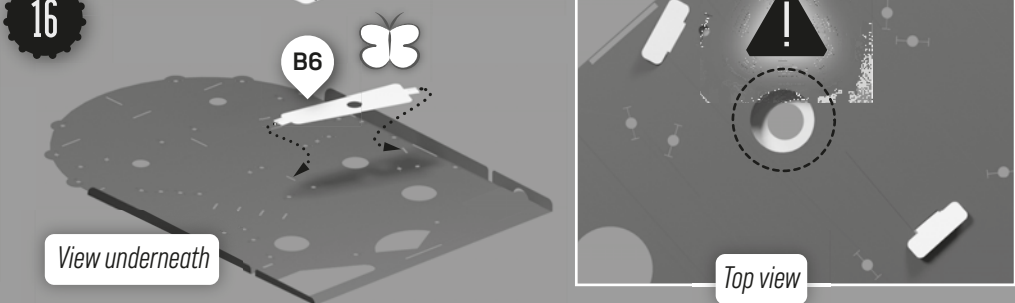
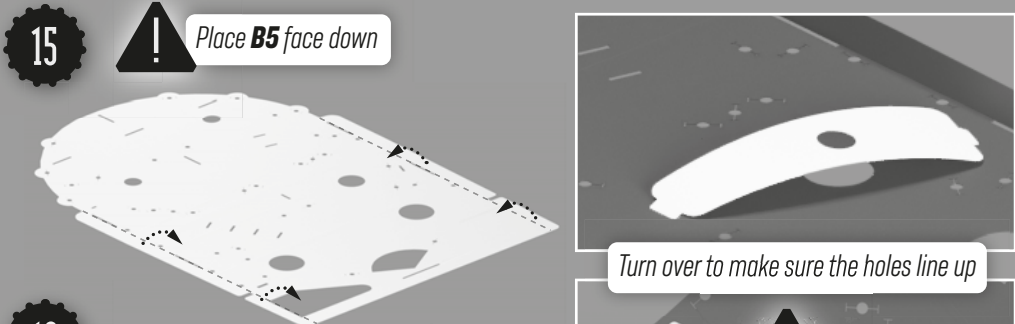
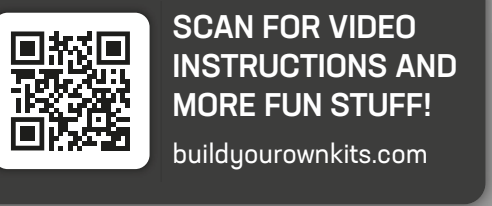
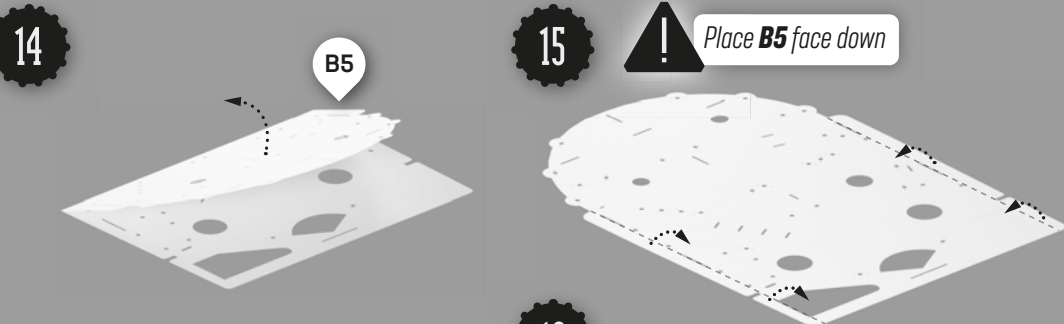
WARNING!

- Recommended age 8+ NOT suitable for children under 3 years.
- Small parts could be a choking hazard.
- DO NOT discharge objects other than the marbles provided.
- Always count and pack up the marbles after use.
- Rubber bands may contain latex.
- Use only under adult supervision and/or guidance - Only to be used by persons capable of understanding the safety aspects concerning misuse of the product.
- DO NOT leave the pinball machine unattended, especially with younger children who may not be familiar with the risks mentioned above.
- Retain these instructions for future reference.

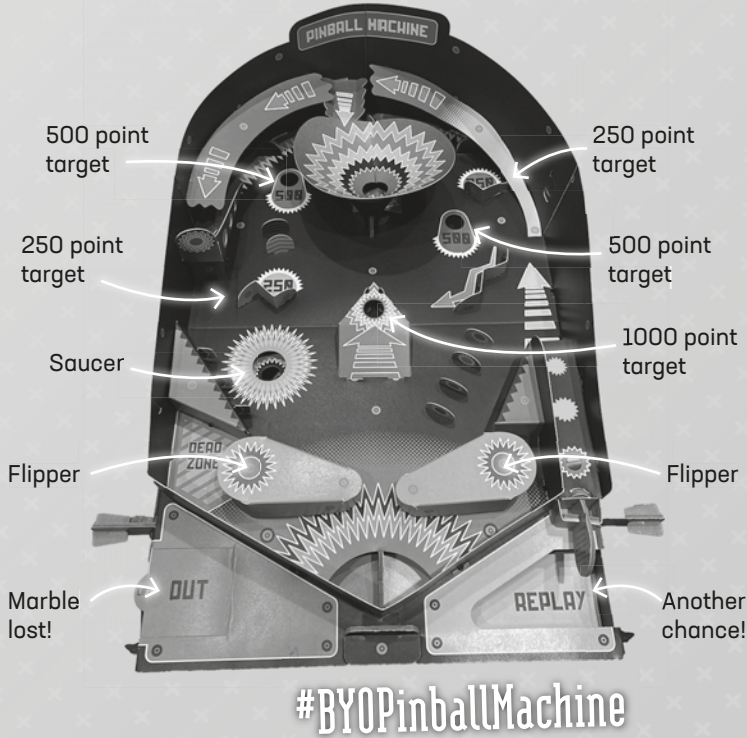


BUTTERFLY TABS
When you see the butterfly icon follow these directions.





How to play



Scoring

The aim of the game is to use your 5 marbles to get the highest score. There are 5 targets to aim for, scoring either 250, 500 or 1000 points. Use the flippers to control the marble and keep it in play! If the marble goes behind the flippers and falls into the hole, it can either go left - out of play, or right - replay for another chance to score! Play until you are out of marbles. Add up your score from the targets your marbles have landed in.

Other ways to play

- Try to keep one marble in play for as long as you possibly can.
- Give yourself 5 minutes and unlimited marbles, how many points can you get?
- Play with a friend and use one flipper each to work together!

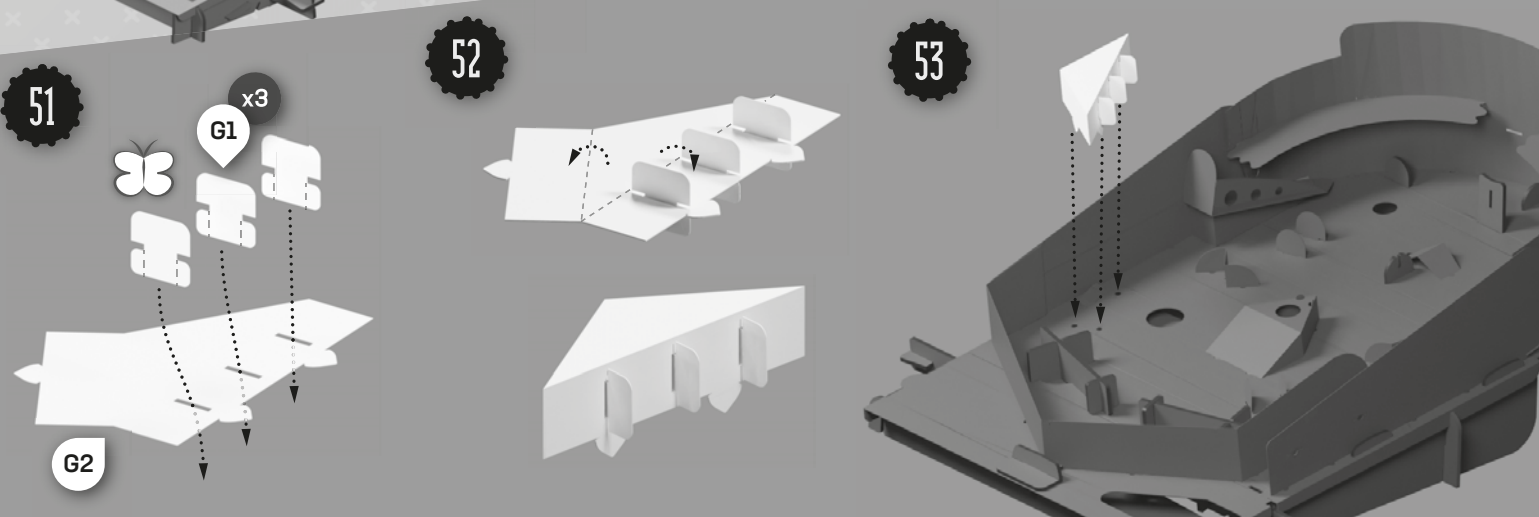
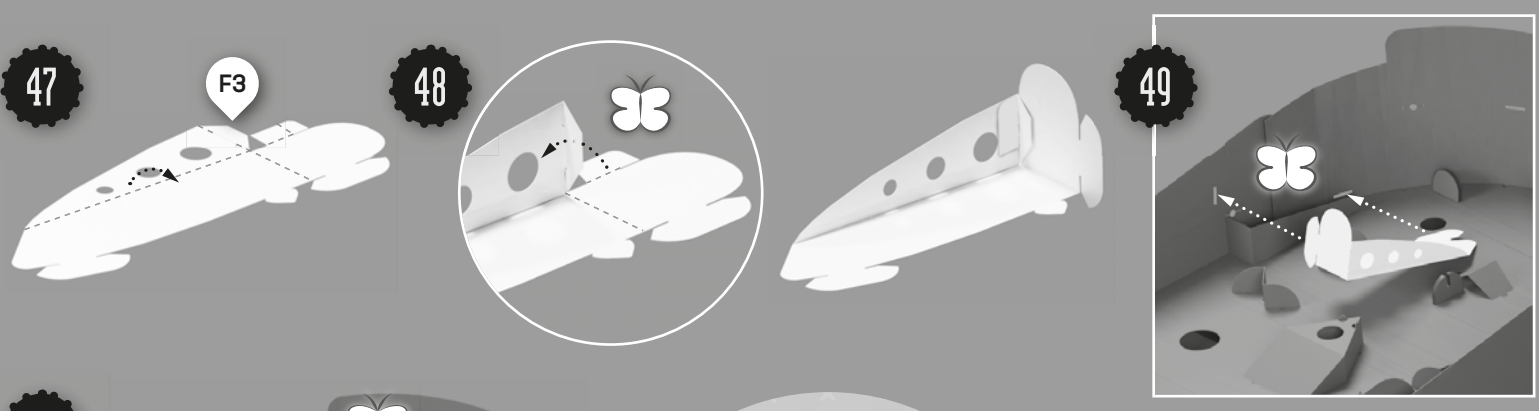
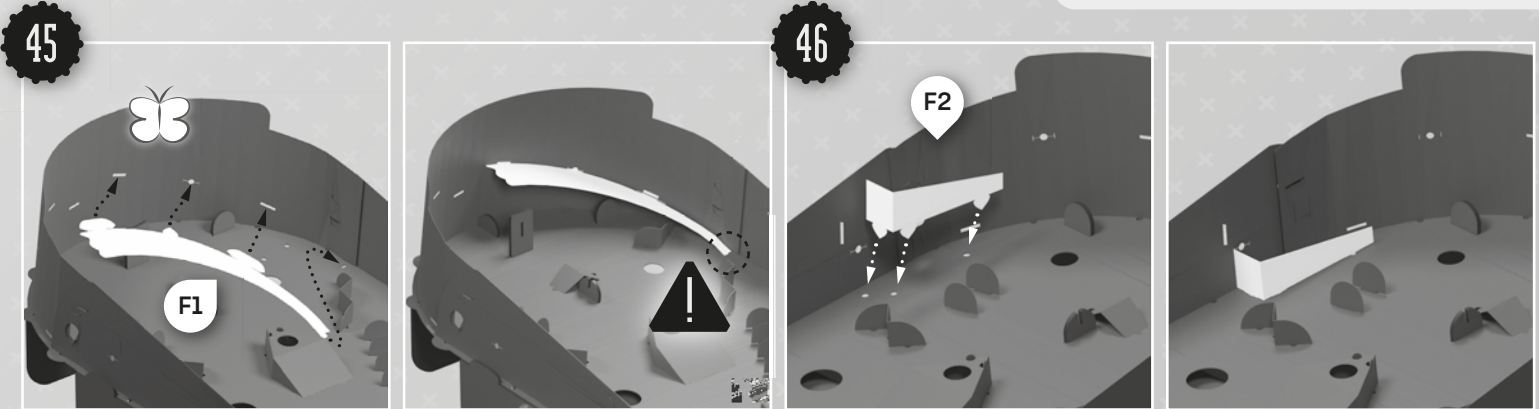
BUILD YOUR OWN

PINBALL MACHINE

INSTRUCTION BOOKLET 2

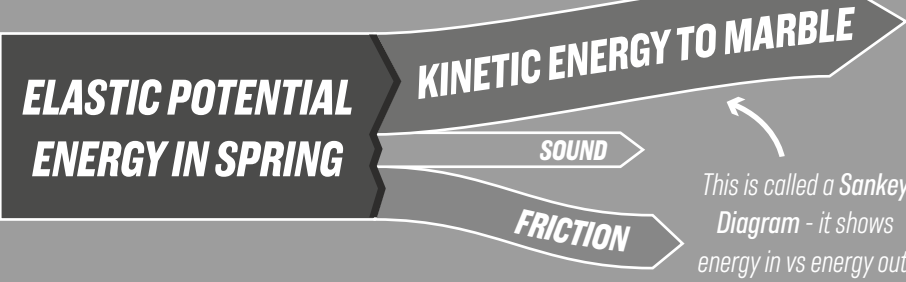
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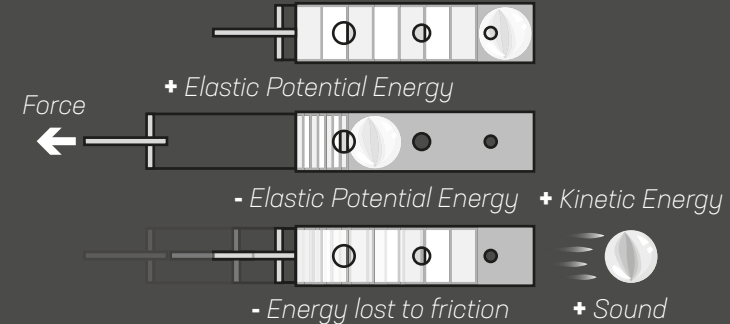
Pinball Machine Science

A fundamental law of nature is the conservation of energy: "Energy cannot be made or destroyed, it can only be transformed from one form to another" And this can be observed in your Pinball Machine when launching a marble!



Elastic Potential Energy

When you pull back the handle on the launcher mechanism, you are compressing the paper spring inside. Now there is Elastic Potential Energy stored inside the spring. When you release the handle the energy is released as the spring returns to its original shape.



Kinetic Energy

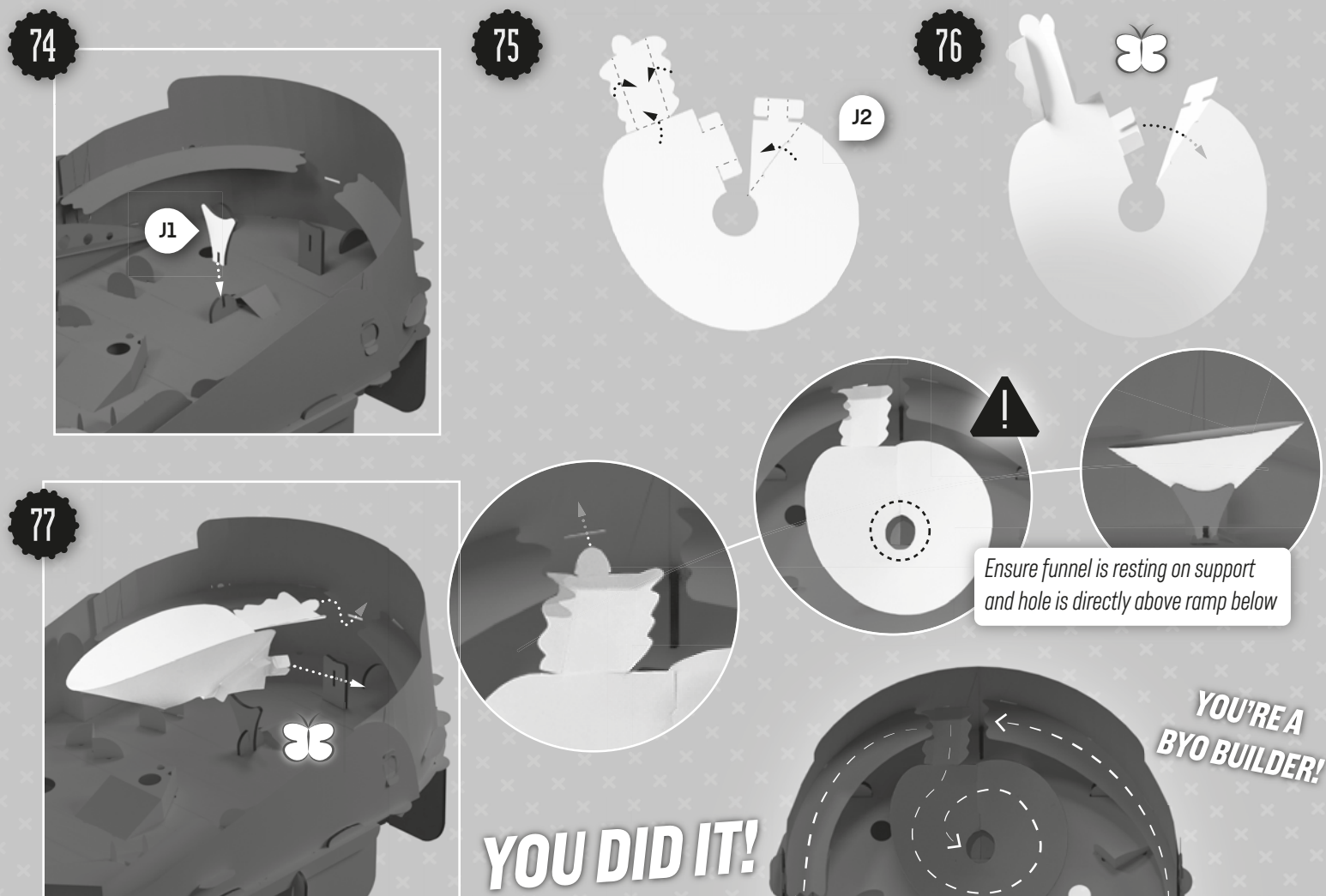
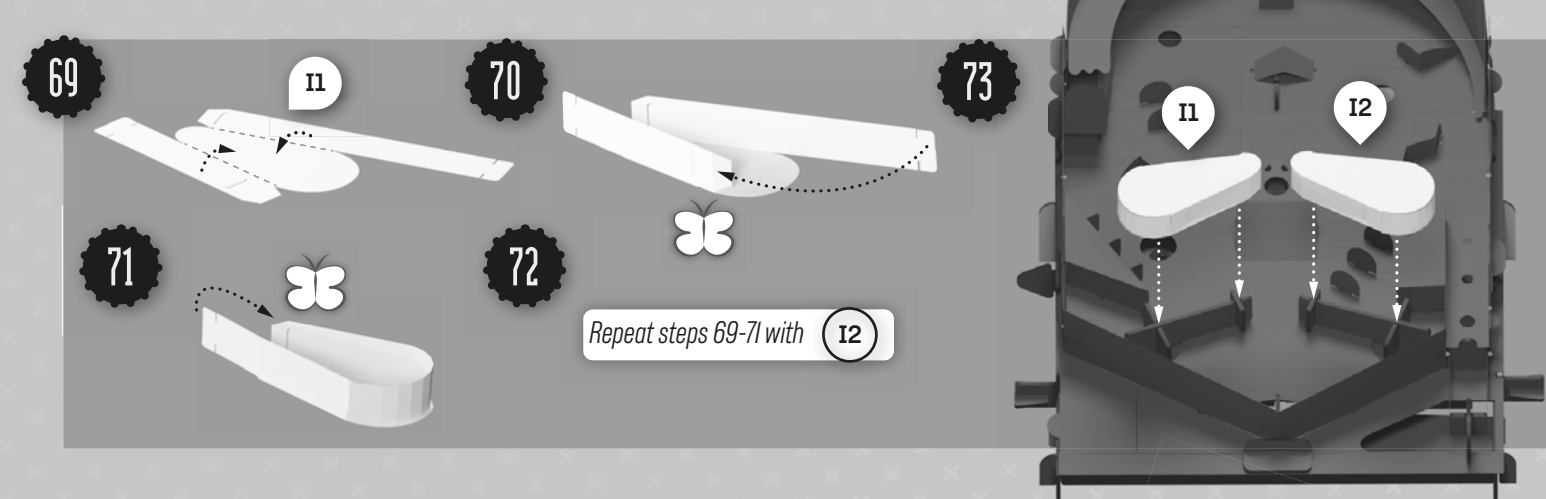
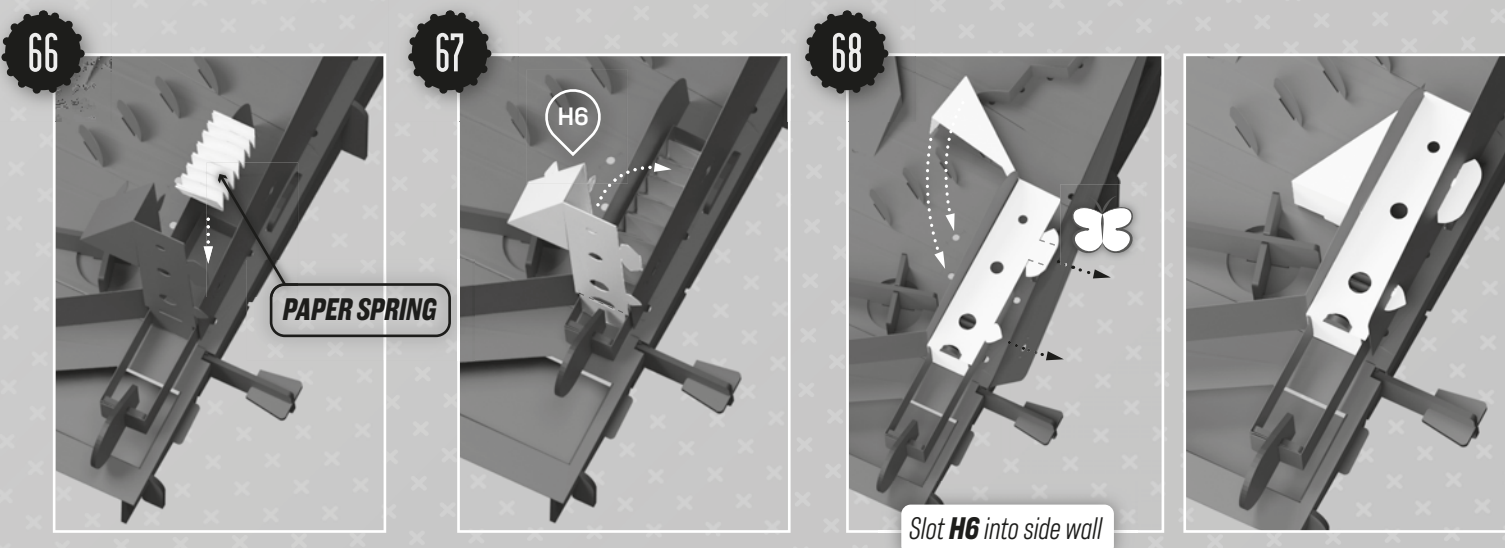
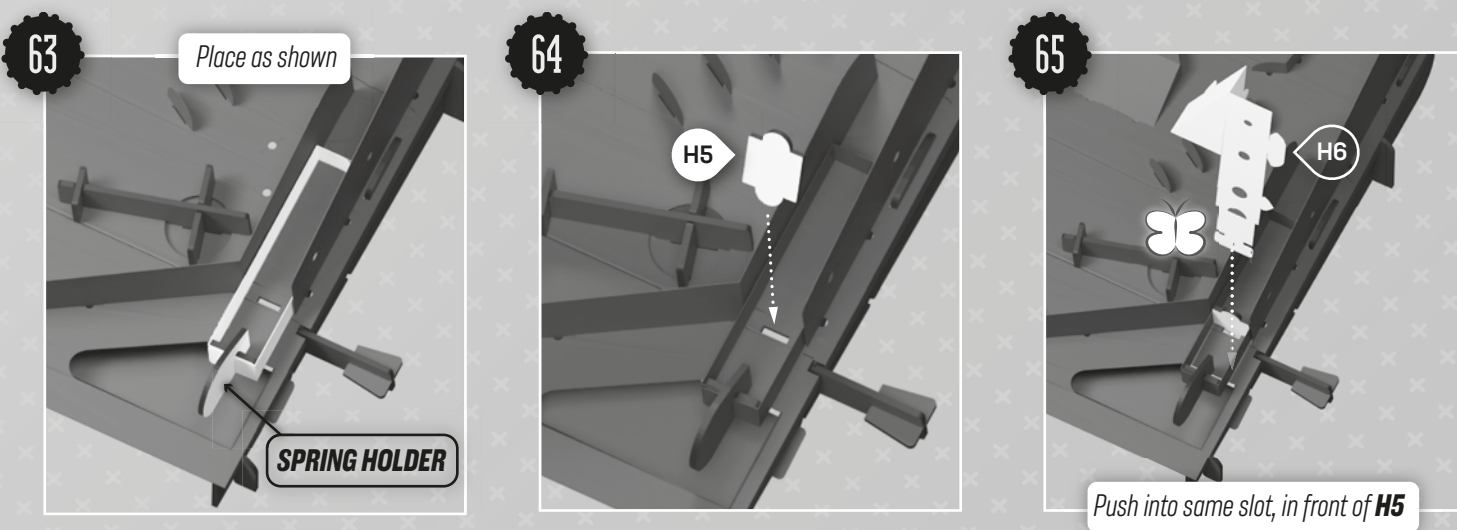
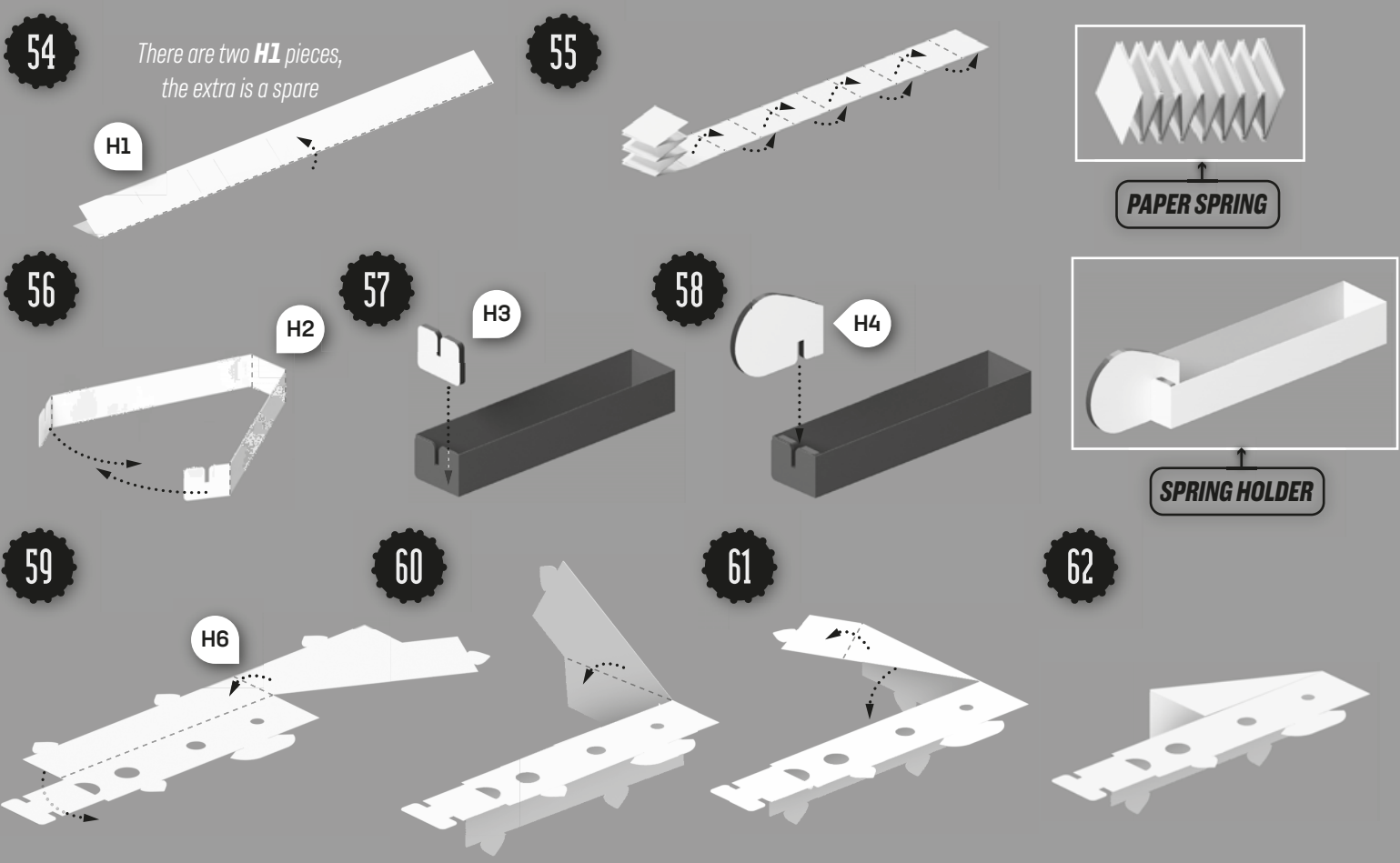
Kinetic Energy is the energy of an object when it is moving. When the spring is released it will transfer the Elastic Potential Energy to Kinetic Energy, pushing the marble forwards and launching it into the game!

Sound

Not all of the Elastic Potential Energy is converted to Kinetic Energy. Some of the energy is transferred to sound - listen out when the marble is launched!

Friction

The remainder of the energy is lost as friction as the spring returns to its original shape inside the launcher tube and rubs against the sides.



How to use

Load the marbles into the launcher as shown **(1)**. Pull back the launcher and let go to fire the marbles onto the board. **(2)** Push the handles to move the flippers to help keep the marble in play **(3)**. If the marble falls into the saucer, use the kicker to catapult the marble back into play **(4)**.

Spring

You may find that the paper spring weakens over time. We have supplied a second spring **(H1)** so you can either replace the old spring, or put both springs in at the same time for extra power!

