

# Making a short run of factory quality packaging with PlayDude

## Professional Case Study



### Tangible prototypes on the day

Using the FormBox, PlayDude were able to go from CAD to accurate physical prototype in just one day.

### Significant time savings

By bringing prototyping and production in-house, there was no time wasted waiting for prototypes to arrive, fitting into an external suppliers schedule or trying to explain modifications over the phone.

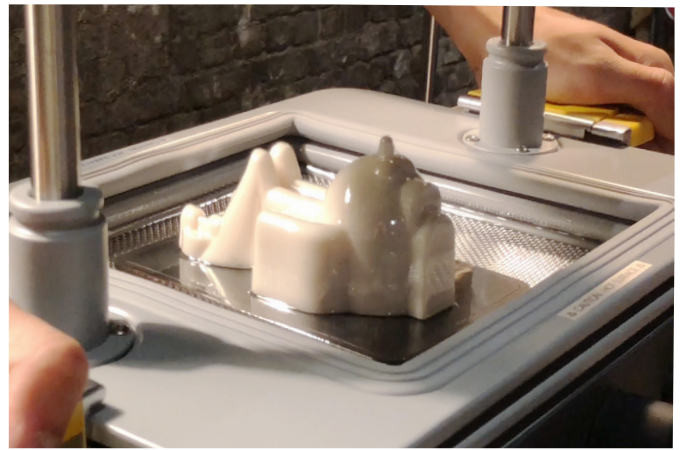
### Massively reduced costs

Purchasing a FormBox was just 20% of the setup cost of going to an external supplier and the final part costs were 60% cheaper.



"[Being] able to produce everything ourselves from our studio with just a vacuum cleaner made the project extremely straight-forward."

Mike McCabe - PlayDude

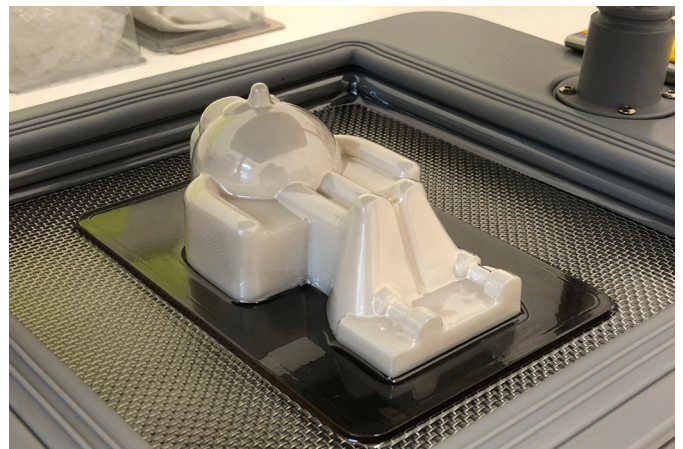
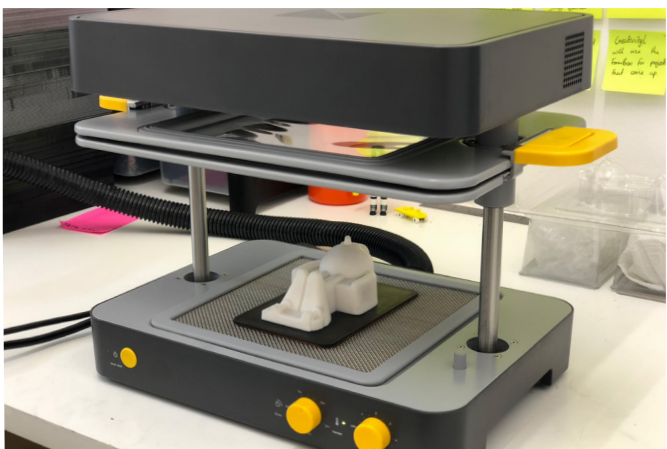


## Their Story

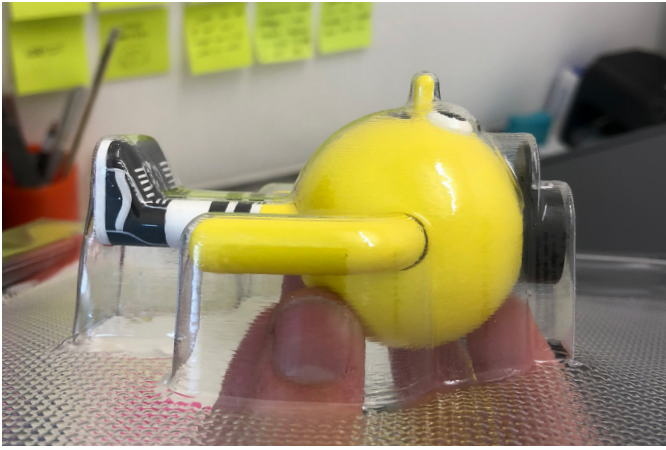
PlayDude often collaborates on projects with major brands like Vans shoes to create exhibitions, products and accompanying projects. Due to the short turnaround times involved in many of their creations, they often require the means to create short runs of products with a tight deadline. PlayDude used the FormBox to create the packaging for a short run of designer toy figures made in collaboration with London based skate company Blast Skates and Vans Shoes.

## The Challenge

PlayDude aimed to create a limited edition of 50 toy figures. They wanted these figures to look as close to a mass manufactured product as possible. This meant blister packing the finished figures. However, due to the number of figures they were intending to produce, packaging factories would not want to do the work and quotes they were receiving were prohibitively expensive. The challenge was to make a short run of factory level packaging on time, within budget and that would adhere to their high standards of products.







## The Solution

*"Even gaining access to an industrial vacuum former was harder than expected, so being able to produce everything ourselves from our studio with just a vacuum cleaner made the project extremely straight-forward."*

Mike McCabe - PlayDude

By using the FormBox to create both the prototypes for the packaging and the final run, PlayDude were able to significantly reduce their lead times, costs and number of prototypes.

They implemented a 3D printer in the FormBox work-flow, using an Ultimaker 3 to create a master template that could then be vacuum formed in the FormBox. This enabled them to quickly test for positioning, fit and toughness. It also enabled PlayDude to get physical prototypes into their hands for inspection quickly, rather than waiting for slow deliveries, massively reducing their product development time.



After a few more iterations of 3D prints and vacuum forms, they perfected the final form of the required shape. A high definition master 3D print was created, the inner void of which was filled with Mayku Pour, a pro-grade plaster that ships with the FormBox. The plaster, once set, makes for a solid core, allowing the 3D printed plastic part to be vacuum formed multiple times over in quick succession without deforming. This inexpensive and rapidly created tooling can be kept for re-use at a later date.

PlayDude then set up a pop-up desktop production line in their studio and a short run of 50 products were made in less than a day. Once the factory grade packaging was formed they were then trimmed and the toys were placed snugly inside, all of the pieces were assembled into the final product.





## Results

### 1. Tangible prototypes on the day

Using the FormBox, PlayDude were able to go from CAD to accurate physical prototype in just one day, enabling to quickly analyse where modifications were needed and make the necessary adjustments.

### 2. Significant time savings

By bringing prototyping and production in-house, there was no time wasted waiting for prototypes to arrive, fitting into an external suppliers schedule or trying to explain modifications over the phone.

### 3. Massively reduced costs

The quotes PlayDude were receiving from the factory were an impediment to making the project happen. Purchasing a FormBox was just 20% of the setup cost of going to an external supplier and the final part costs were 60% cheaper.

## Cost Comparison

	External Vendor	Mayku FormBox
Setup cost	£2500+	£599
Part cost	£3	£1
Prototyping time	2-3 weeks	18 hours of 3D printing
Production time	1 week	1 day

