

# Test plan

## Max load

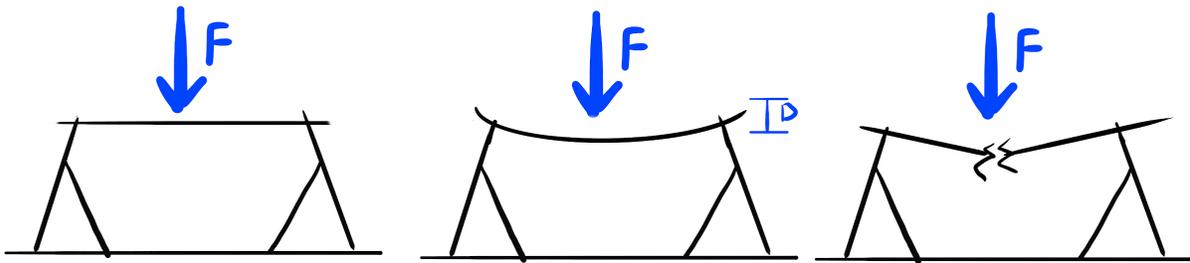
### Objective:

Test the strength of the structure and if it can hold the weight of an adult with a sufficient factor of safety.

### Test procedure:

Gradually load the structure by adding weights to the platform where the user would stand. Every time the load is increased note the load and measure the deflection (take the distance from the base plate to the top of the platform. Load the structure to a maximum weight of x kg (adult weight+safety factor).

Repeat the test with two more structures to ensure that the results do not vary from one to another.



Force(N)	Deflection(mm)	Fracture
1		
2		
n		x

## Stability

### Objective:

Test the structural integrity of the stool under a moving element. In other words the objective is to determine if a person can dance on top of the structure.

### Test procedure/set-up:

Option 1: Have a test subject stand on the structure and gradually start moving (this is the most practical approach). If the structure can support the test subject for 10 minutes the test can be considered successful.

Option 2: Place the structure on a moving base (used to simulate earthquakes on structures), load the platform with x kg (average adult weight). This is a more quantifiable testing method.

Shake the loaded structures at three different frequencies for 2 minutes. With the help of a camera film the structure. By comparing the different frames of the picture the deflection of the structure can be calculated.

## Deployment time

For this test the product will be given to users that are familiar with the product. This means that the participants will be briefed on the functioning of the product beforehand. This ensures that all the participants have a similar amount of experience which will contribute to more consistent results.

The test consists in tasking the participants to deploy the product. The time they require to complete the task will be recorded. The sample size would ideally be three people however, with one participant the test would already result in an acceptable benchmark for deployment time. If the sample would be a larger number of participants the average of the times would be used as a benchmark for requirement evaluation.

User	Time round 1	Time round n
1		
n		

## Using the product without instructions (intuitivity)

For this test it is important that the participants are unfamiliar with the product. They will receive the product and have to try to deploy it without any instructions or help. For this the time will be recorded and the user will be interviewed to determine if they have any extra comments or issues. This will also serve the purpose to discuss if there were any confusing or misleading aspects of the product. For this test the time will only be recorded once to prevent the user from learning how to use the product.

User	Time	Comments
1		
n		

## Learning process (learnability)

In order to test the learning process of using the product participants will be given the product and have to deploy it without any instructions, just like the previous test. However this time the

participants will have to do this multiple times. Each round the time will be recorded. Depending on how much this time decreases each round it can be seen if there is a learning curve or not.

<b>User</b>	<b>Time round 1</b>	<b>Time round n</b>
1		
n		