

Project2

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In our design, there are 16 conditions of paper planes as follows:

ID	Treatment	ID	Treatment
a	Only high rotor length	bd	High leg length & leg clip
b	Only high leg length	cd	High leg width & leg clip
c	Only high leg width	abc	High rotor length & high leg length & high leg width
d	Only leg clip	abd	High rotor length & high leg length & leg clip
ab	High rotor length & high leg length	acd	High rotor length & high leg width & leg clip
ac	High rotor length & high leg width	bcd	High leg length & high leg width & leg clip
ad	High rotor length & leg clip	abcd	High on all factors
bc	High leg length & high leg width	1	Low on all factors

where the levels of highs and lows are defined by:

- **Rotor length:** low = 7.5 cm, high = 8.5 cm
- **Leg length:** low = 7.5 cm, high = 12.0 cm
- **Leg width:** low = 3.2 cm, high = 5.0 cm
- **Leg clip:** no, yes

```
set.seed(123)
trt = c(rep("a", 5), rep("b", 5), rep("c", 5), rep("abc", 5))
```