voltavision

Test you as a
BenchBuilder
The ultimate card game experience for test bench design

💡 Tim Termeer

👥 Ages 8 and up   👥 2 players   ⏱ ~15 min

Step into the role of a lab planner and build your own test laboratory!

By drawing cards, you'll collect matching card sets that can be played into your lab as test benches.
There are three types of test benches: **Cell**, **Module**, and **Pack** – each with its own unique symbol.

These symbols make it easy to see which cards can be combined during the game.

▲ Cell
⬤ Module
▮ Pack

Game objective:
Collect 5 victory points (Siegpunkt) – this usually takes about 15 minutes to play.
If you prefer a shorter or longer game, simply adjust the number of victory points accordingly.

You earn victory points for:
• Successfully playing a complete test bench using 5 cards
• Upgrading an existing test bench to 7 cards

Game components:

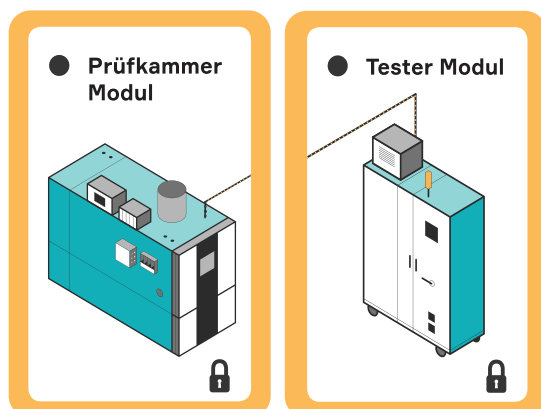| 18 Lab cards	40 Product cards	14 Service cards	12 Victory point cards
3 x Test chamber Pack 3 x Pack tester 3 x Test chamber Modul 3 x Module tester 3 x Test chamber Zelle 3 x Cell tester	5 x Voltacooler 4.1 4 x Voltacooler 40.2 5 x Voltalore 6 x Emergency Module 6 x Feedthrough DFS 5 x Feedthrough DFP 5 x Voltaframe 4 x Contacting Unit	7x Seminars & Trainings 7x Maintenance & Calibration	3 x Voltasym 3 x VPP 3 x VPZ 3 x Immersion test bench

Lab cards

Two matching lab cards form the foundation of a test bench — without them, no test bench can be played.
As a reminder, a lock symbol is shown in the bottom right corner of the cards.

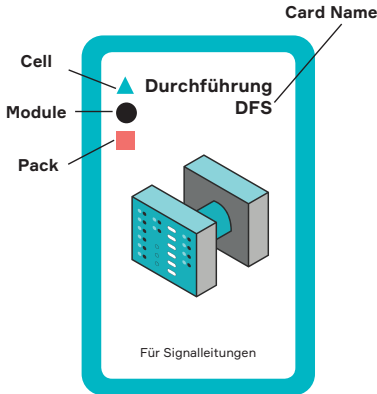⬤ **Prüfkammer Modul**

⬤ **Tester Modul**

💡 In order to play a test bench, you must have 3 matching product cards (in petrol color) in addition to the lab cards.

Product cards:

The symbols in the top left corner indicate which lab cards they can be combined with.

Important:

Each product card may only appear once in a single test bench — what matters is the card name at the top.

Card Name

Cell

Module

Pack
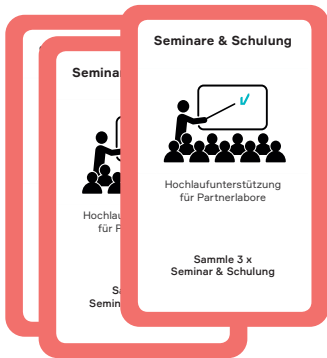
Durchführung DFS

Für Signalleitungen

The feedthrough for signal lines (Durchführung DFS) can be used in all three types of test benches — Cell, Module, and Pack.
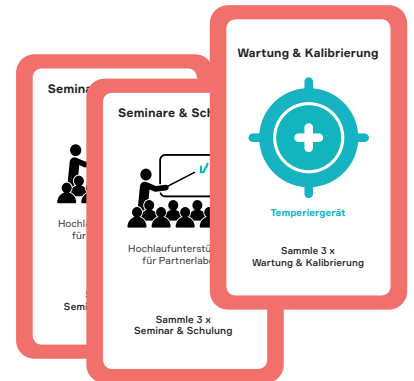
Service cards:

There are two types of service cards: Seminars & Trainings (Seminare & Schulung) and Maintenance & Calibration (Wartung & Kalibrierung). For every set of 3 cards of the same type, you receive 1 victory point.

Important:

Seminars & Trainings cannot be combined with Maintenance & Calibration.

Seminare & Schulung

Hochlaufunterstützung für Partnerlabore

Sammle 3 x
Seminar & Schulung

3 identical collectible cards

Seminare & Schulung

Hochlaufunterstützung für Partnerlabore

Sammle 3 x
Seminar & Schulung

Wartung & Kalibrierung

Temperiergerät
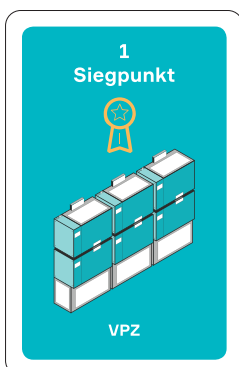
Sammle 3 x
Wartung & Kalibrierung

different collectible cards

Victory point cards:

Victory point cards serve solely as a way to count your points. They do not have any additional effect in the game.
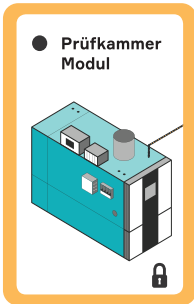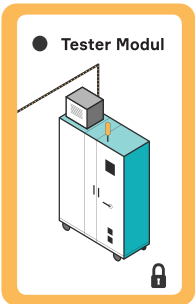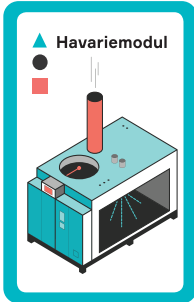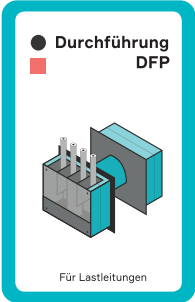
1
Siegpunkt

VPZ

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Setup:

Two decks are prepared as follows:
- Deck A: Shuffle the 4 service cards with the orange star into the lab cards.
- Deck B: Shuffle the 10 service cards with the petrol star into the product cards.

Place both decks face down. Then, reveal the top 2 cards from each deck to create the starting display.

face-down cards   face-up cards

Deck A:
Lab cards +
4 **Service cards**

● Prüfkammer Modul

● Tester Modul

There is no discard pile. Discarded cards are placed under the corresponding face-down deck.

Deck B:
Products cards +
10 **Service cards**

▲ Havariemodul

● Durchführung DFP

Für Lastleitungen

Player turn:

As a lab planner, you play your test benches face up in your lab area (the lab is simply the space in front of you). You may perform the available actions in any order you choose.

As the starting player, you may only draw one card on your first turn.

Actions:
- Draw 2 cards (from the face-up and/or face-down decks) – (1 action)
- Play cards – (can be done multiple times per turn)
    - Play a test bench (Minimum of 5 matching cards. The corresponding test chamber and tester cards must always be included.)
    - Expand an existing test bench (Add matching cards to a test bench you've already played.)
    - Play 3 identical service cards (Grants 1 victory point when playing 3 cards of the same type.)
- Discard 2 cards from your hand to draw 1 new card of your choice (This action may be repeated multiple times.)
- Discard 1 card from your hand to refresh the face-up display (Replace all face-up cards with new ones. This action may also be repeated.)

At the end of your turn:
- Check your hand limit of 10 cards (If necessary, reduce your hand by using the action: "Discard 2 cards to draw 1 new one".)
- **Refill the face-up display with new cards.**

Test Bench Overview:

Enjoy setting up your lab!
Take a look at these sample test benches to see how a complete setup might look.

Prüfstand Zelle

▲ Havariemodul

▲ Durchführung DFS

Für Signalleitungen

▲ Voltacooler VC4.1

Temperierung der DUT's

▲ Prüfkammer Zelle

▲ Tester Zelle

▲ Voltalore

Transportwagen für DUT's

▲ Kontaktierung

KSP-600
für prismatische Zellen mit gegenüberliegenden Tabs

Prüfstand Modul

▲ Havariemodul

▲ Durchführung DFS

Für Signalleitungen

▲ Voltacooler VC4.1

Temperierung der DUT's

● Prüfkammer Modul

● Tester Modul

● Voltalore

Transportwagen für DUT's

● Voltaframe

Positionierungshilfe

● Durchführung DFP

Für Lastleitungen

Prüfstand Pack

▲ Havariemodul

▲ Durchführung DFS

Für Signalleitungen

■ Voltacooler VC40.2

Temperierung der DUT's

■ Prüfkammer Pack

■ Tester Pack

● Voltaframe

Positionierungshilfe

● Durchführung DFP

Für Lastleitungen

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