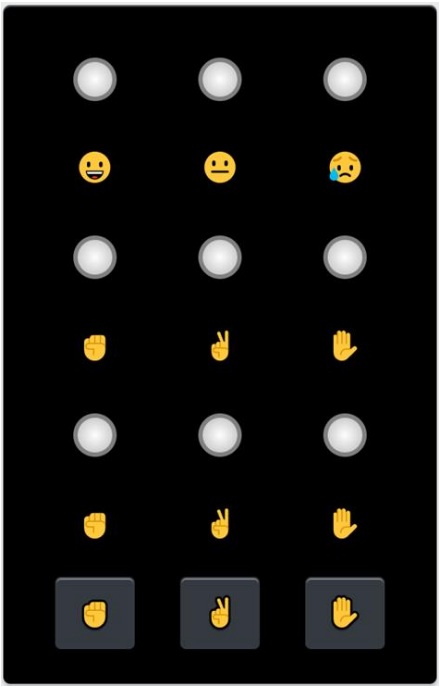
KNOBLOMAT



DTV-ONLINE

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Getting Started

Thank You for getting the famous 5th generation Knoblomat just released for the 50th anniversary of the first portable *Knoblomat* back in the 60s of the last century.

What's in the box?

- The 5th generation *Knoblomat*
- A micro USB cable
- A portable power bank

You need a 5V capable USB charger (not supplied), or a computer USB port with charging capabilities. To access the *Knoblomat* a modern web browser is required (Edge, Safari, Firefox, ore Chrome).

Setup

First connect the power bank with the supplied cable to the 5V USB charger or computer USB port and charge it up (the red led on the power bank will stop blinking when it is fully charged).

Then connect the *Knoblomat* with the power bank using again the micro USB cable and You are ready to go. As an alternative You can also directly plug the *Knoblomat* into any USB charger.

Welcome to the 5th generation Knoblomat

Connect

Once the *Knoblomat* is powered up it automatically starts in Access Point mode. This means that a special WiFi network is now available You can connect to.

PC

- Click on the WLAN symbol at the bottom of the taskbar (Windows)
- Click on the then visible network starting with "KNOBLOMAT_" and connect to this access point
- Start browser
- Call address 192.168.4.1

On the PC You can also simply enter http://knoblomat in the browser to access the *Knoblomat*.

Phone

- Go to the WLAN settings (top of the menu bar)
- Select the then visible network starting with "KNOBLOMAT_" and connect to this access point
- Start browser
- Call address 192.168.4.1

Please note that once You are connected to the KNOBLOMAT network, the Internet is not available (a message on the phone might indicate this – simply ignore the message – the *Knoblomat* will work without access to the Internet.

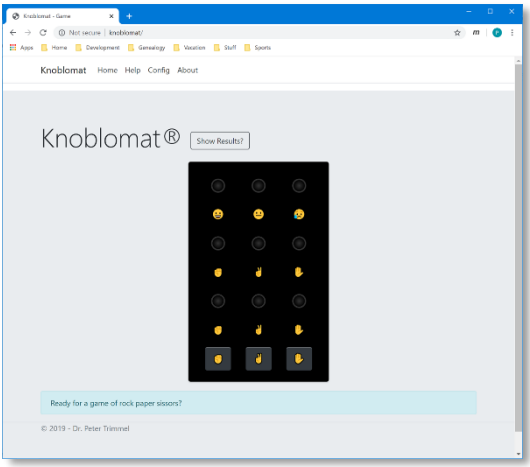
QR-Code

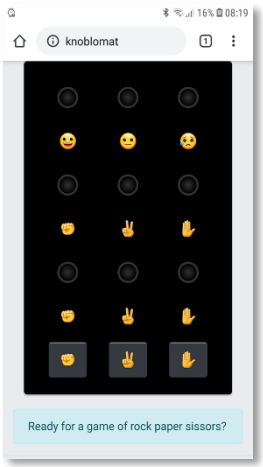
On the phone you can simply scan the supplied QR-Code to connect to the *Knoblomat*. This should also be on the sticker on top of the *Knoblomat*.

Scan Me

Knoblomat

The *Knoblomat* is displayed within the browser and You are ready to go.





Startup

When the web page loads, after quitting the welcome dialog, the LEDs are getting turned on row by row. Once the startup is finished all LEDs are turned off and the *Knoblomat* is ready to play. This is also indicated by an alert message in the message area below the Knoblomat displaying:

> Ready for a game of rock paper scissors?

If no button is hit at any point during the game for more than 15 seconds, the *Knoblomat* is reset to the waiting state (all LEDs are turned off). After 10 minutes of inactivity, the *Knoblomat* goes into a deep sleep mode requiring a power reset (disconnect and reconnect the USB cable).

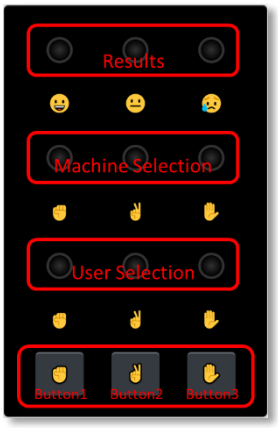
Shutdown

To shut down the *Knoblomat*, simply remove the unit from the power source by disconnecting the USB cable.

Display

LEDs and Buttons

The *Knoblomat* has LEDs corresponding to the user selection (bottom row of LEDs), the machine selection (middle row of LEDs) and the game result (top row of LEDs).



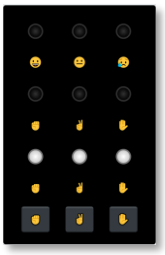
Three push buttons (labeled ✊, ✌, ✋) are used to control the game.

Note that the top row of LEDs (also labeled 😋, 😐, 😢) indicate Your result of a game of Rock-Paper-Scissors depending on Your selection and the machine selection. The left LED in the top row indicates that You have won (the *Knoblomat* has lost). The right LED in the top row indicates that You have lost and the *Knoblomat* has won. The middle LED in the top row indicates a tie.

The total results of all games in a session can be displayed using the button in the title:

A simple as 1-2-3

1st Click

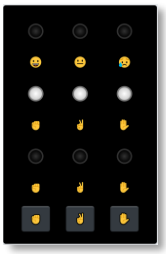


The first click (choose any button) indicates that You want to play a game of Rock-Paper-Scissors.

The bottom row of LEDs is turned on.

The message area shows: Let's start…

2nd Click

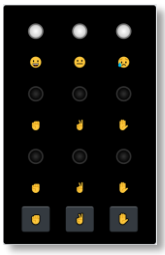


The second click (again any button works) indicates that You are ready to cast Your selection.

The second row of LEDs is turned on.

The message area shows: I am ready…

3rd Click



The third click (choose Your button) indicates Your choice in the game of Rock-Paper-Scissors.

The top row of LEDs is turned on, and after a short delay,

the user and machine choices (and the result) are displayed.

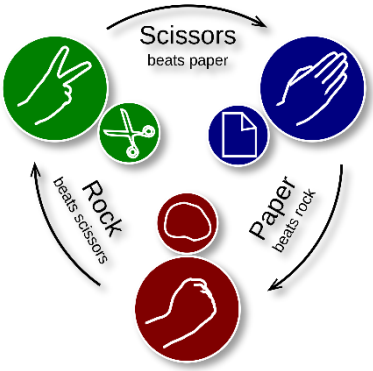
If within 15 seconds a button is clicked the *Knoblomat* switches to the wait state indicated in the message area and all LEDs are turned off.

Game Play

The players usually count aloud to three or speak the name of the game (e.g. "Rock! Paper! Scissors!" or "Ro Sham Bo!"), each time either raising one hand in a fist and swinging it down on the count or holding it behind.

Hand Signs

Each of the three basic hand signs (from left to right: rock, paper, and scissors) beats one of the other two, and loses to the other.



Knoblomat

Note that the *Knoblomat* also plays on three counts – the last selected button determines the user selection – the previous button clicks are irrelevant, only the last one counts. So, you can change Your mind at any time during the game.

The *Knoblomat* selection is done completely independent based on a sophisticated algorithm (randomly) and the results are displayed.

A little History

The first known mention of the game was in the book Wuzazu by the Chinese Ming-dynasty writer Xie Zhaozhi (fl. c. 1600), who wrote that the game dated back to the time of the Chinese Han dynasty (206 BC – 220 AD).

The earliest Japanese *sansukumi-ken* game was known as *mushi-ken* (虫拳), which was imported directly from China. Even today, the best-known *sansukumi-ken* is called *jan-ken* (じゃんけん), which is a variation of the Chinese games introduced in the 17th century. Jan-ken uses the rock, paper, and scissors signs and is the game that the modern version of rock–paper–scissors derives from directly.

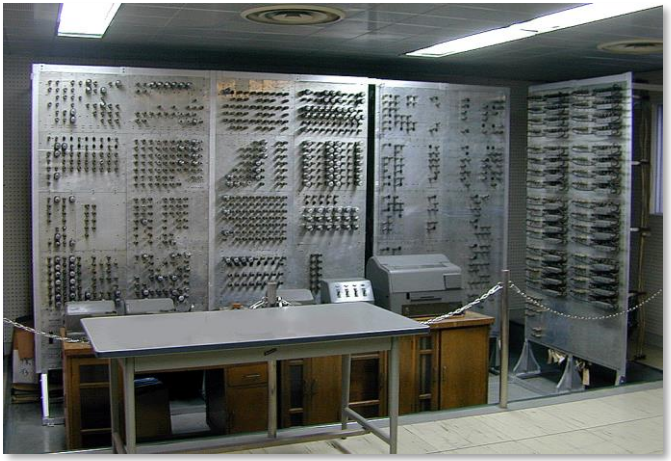
By the early 20th century, *rock–paper–scissors* had spread beyond Asia, especially through increased Japanese contact with the west. In Austria this game is known as "*Stein Schere Papier*" in other countries it is known as *rock paper scissors* (also known as *scissors rock paper* and *scissors paper stone*).

For more information see Wikipedia:

https://en.wikipedia.org/wiki/Rock_paper_scissors

1950s

In the 1950s the first electronic computing devices have been introduced. However, this first generation *Knoblomat* was rather unyielding, bulky and unreliable.



1960s

The first portable *Knoblomat* was made possible with the introduction of the transistor. A transistor *Knoblomat*, now often called a second-generation device, is a *Knoblomat* which uses discrete transistors instead of vacuum tubes.

The *SUPERKNOBLOMAT 2000* (H. Trimmel) shown here was the pioneer in portable design. Battery operated, pushbuttons, and lamps for the display allowed easy operation.

The *SUPERKNOBLOMAT 2000* was the start of a successful series of *Knoblomat's* in the following years leading the way to today with the 4th and 5th generation devices.

1970s

In the late 1960s the first integrated circuits (ICs) and the first light-emitting diode (LED) were introduced. The 7400 series of transistor-transistor logic (TTL) integrated circuits allowed a radically new design for the *Knoblomat* logic. The at that time brand new red LEDs provided the display.

So, 50 years ago, this *Knoblomat* had all the necessary features, was the first small handheld device and represented the 3rd generation of the world famous *Knoblomat* (P. Trimmel).

Today

The portable *Knoblomat* is using the latest technologies to provide a portable intelligent gaming device. The heart of the *Knoblomat* is an Arduino Nano, a small, complete, and breadboard-friendly board based on the ATmega328. LEDs, push buttons and a battery complete the fourth generation *Knoblomat*.

The **50th anniversary** of the *Knoblomat* culminates with the **fifth generation** arriving. With the availability of WiFi enabled small devices. such as the ESP32, a web based *Knoblomat* has become a reality. All the features known from the previous devices are now accessible from a PC, a tablet, or a smartphone using simply a web browser after connecting to the *Knoblomat* WiFi access point.

Keep calm and play Rock-Paper-Scissors.

Who we are

DTV-Online brings all the fun in a wide set of innovative products. Established in the 1970s we have designed and manufactured famous devices such as

- The Electric Hammer
- The Email Opener
- The Millennium PC
- The Dinosaur Detector
- The Knoblomat – 50th anniversary edition

and many more.

Contact Us

Grabenweg 4
3683 Yspertal, Austria

Phone: +43 699 1968 1006
Email: peter.trimmel@live.com

Web: dtv-online.net

DTV-Online
Grabenweg 4
3683 Yspertal, Austria