

[Home](#) \* [Engines](#) \* **SciSys Leonardo**



Leonardo with [Maestro](#) module <sup>[2]</sup>

**SciSys Leonardo**, (Kasparov Leonardo)  
a [dedicated chess computer](#) by [SciSys](#) released in 1986, featuring a full sized wooden magnetic [sensory board](#) with file and rank [LEDs](#), expandable with [modules](#) with own processors and programs. Opposed to other dedicated modular chess systems, the Leonardo already had a basic program on board - written by [Julio Kaplan](#) and [Craig Barnes](#) of [Heuristic Software](#), running on a [6800](#) compatible [Hitachi 6301Y](#) controller, which was also the program of the none modular *SciSys Turbo S-24K* <sup>[1]</sup>.

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## Tournaments

SciSys Leonardo played the [Aegon 1986](#) with two wins and a draw, and the [Aegon 1987](#) where it drew two games out of six.

## OSA

SciSys' or [Saitek's](#) *Open System Architecture* (OSA) implements a [serial connection](#) of the Leonardo, or its subsequent models Galileo or Renaissance to [home computers](#) or [PCs](#). The OSA link cable [converts TTL](#) to [RS-232](#) levels and vice versa <sup>[3]</sup> <sup>[4]</sup>. This allows to use the [sensory board](#) as [move input device](#) of chess program [GUIs](#) such as [Arena](#) <sup>[5]</sup>, or the dedicated [user interfaces](#) like [Gavon](#).

## Saitek Galileo

In 1988, one year after SciSys became [Saitek](#), the Leonardo was renamed the Galileo for copyright reasons and the machine was upgraded for faster response <sup>[6]</sup>.

## Saitek Renaissance

In 1989, the Renaissance board appeared with almost the same base program and featuring [LCD](#) and 9x9 square indicator LEDs - four surrounding each square, and analyse and autoplayer modes.



Saitek Renaissance OSA-linked with [Gavon](#) <sup>[7]</sup>

## Modules

Module	Release	Authors	Processor	MHz	ROM [KiB]	RAM [KiB]	
<a href="#">Saitek Analyst</a>	1989	<a href="#">Julio Kaplan</a> , <a href="#">Craig Barnes</a>	<a href="#">65C02</a>		4-10 A-D, D+, <a href="#">D++</a> , 40-216	16	
<a href="#">Saitek Maestro</a>	1989	<a href="#">Julio Kaplan</a> , <a href="#">Craig Barnes</a>	<a href="#">65C02</a>		4-10 A-D, D+, <a href="#">D++</a> , 40-216	16	
<a href="#">Saitek Brute Force</a>	1992	<a href="#">Frans Morsch</a>	<a href="#">H8</a>		10	32	257
<a href="#">Saitek Sparc</a> <sup>[8]</sup>	1993	<a href="#">Kathe</a> and <a href="#">Dan Spracklen</a>	<a href="#">SPARC</a>		20	256	1024 - 4096

## See also

- [Given Name](#)
- [Leonardo Torres y Quevedo](#)
- [Mathematician | Leonardo Fibonacci](#)
- [Mathematician | Leonardo da Vinci](#)
- [Mathematician | Galileo Galilei](#)
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## Publications

- [SciSys](#) (1986). *SciSys (preprint!) – New For Spring 1986*. [pdf](#) hosted by [Hein Veldhuis](#)
- [Saitek](#) (1987). *Connection Cable for Leonardo Chess Computer - The Link: Leonardo's OSA connection to computers and printers*. [pdf](#) hosted by [Alain Zanchetta](#)
- [Frederic Friedel](#) (1989). *Auto-Analyse und TPA - Die neuen Funktionen des Kasparov Renaissance*. [Computerschach und Spiele](#), No. 5, 1989 (German), in [Saitek Renaissance](#) from [Schachcomputer.info Wiki](#)
- [Thorsten Czub](#), [Dirk Frickenschmidt](#) (1992). [Die Experimentalen D+ und D++](#). [Schachcomputerwelt](#) 2/92, also in [Saitek D++](#) from [Schachcomputer.info Wiki](#) (German)

## Forum Posts

- [Old LEONARDO chess computer help?](#) by Robert Howard, [CCC](#), May 10, 1999
- [Renaissance or Galileo board ?](#) by Alan Grotier, [CCC](#), April 30, 2005
- [Collector's Corner..Saitek Renaissance?](#) by [Steve B](#), [CCC](#), March 04, 2006
- [Collector's corner: Saitek Renaissance board version?](#) by [Dr. Axel Schumacher](#), [CCC](#), May 29, 2007
- [Scisys Leonardo story and info requested](#) by Brian B, [Hiarcs Forum](#), June 18, 2014
- [Leonardos revenge](#) by Brutus, [Hiarcs Forum](#), March 19, 2015

## External Links

### Chess Computers

- [Saitek Modulare Serie](#) from [Schachcomputer.info Wiki](#) (German)

### Leonardo

- [Leonardo](#) from [Chess Computer UK](#) by [Mike Watters](#)
- [SciSys Leonardo](#) from [Schachcomputer.info Wiki](#) (German)
- [Saitek Leonardo TurboKit](#) from [Schachcomputer.info Wiki](#) (German) » [6502 TurboKit TK20](#)

### Galileo

- [Saitek Galileo & Brute Force Module](#) by [Bryan Whitby](#), April 21, 2007
- [Saitek Galileo](#) from [Schachcomputer.info Wiki](#) (German)

### Renaissance

- [Saitek Renaissance Brute Force](#) from [Chess Computer UK](#) by [Mike Watters](#)
- [Saitek Renaissance Sparc](#) from [Chess Computer UK](#) by [Mike Watters](#)
- [Saitek Renaissance](#) from [Schachcomputer.info Wiki](#) (German)

### OSA

- [OSA Link Cable](#) from [Schachcomputer.info Wiki](#)
- [OSA](#) for [Arena](#) © 2009-2012 [Achim Pietig](#), hosted by [Schachcomputer.info Wiki](#)
- [Saitek OSA Link](#) from [Schachcomputer.info Wiki](#) (German)

## Modules

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- [Saitek Maestro](#) from [Schachcomputer.info Wiki](#) (German)
- [Saitek D++](#) [Schachcomputer.info Wiki](#) (German)
- [Saitek Brute Force](#) from [Schachcomputer.info Wiki](#) (German)
- [Saitek Sparc](#) from [Schachcomputer.info Wiki](#) (German)

## Misc

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- [Leonardo Fibonacci](#) from Wikipedia
- [Leonardo da Vinci](#) from Wikipedia
- [Leonardo Torres y Quevedo](#) from Wikipedia
- [Leonard Chess](#) from Wikipedia

### Galileo

- [Galileo \(disambiguation\)](#) from Wikipedia
- [Galileo Galilei](#) from Wikipedia

### Renaissance

- [renaissance](#) - Wiktionary
- [Renaissance](#) - Wiktionary
- [Renaissance \(disambiguation\)](#) from Wikipedia
- [The Renaissance](#) from Wikipedia

## References

1. <sup>^</sup> [SciSys Turbo S-24K](#) from [Schachcomputer.info Wiki](#) (German)
2. <sup>^</sup> Image of [Leonardo](#) from [Chess Computer UK](#) by [Mike Watters](#)
3. <sup>^</sup> [OSA Link Cable](#) from [Schachcomputer.info Wiki](#)
4. <sup>^</sup> [Saitek](#) (1987). *Connection Cable for Leonardo Chess Computer - The Link: Leonardo's OSA connection to computers and printers.* pdf hosted by [Alain Zanchetta](#)
5. <sup>^</sup> [OSA](#) for [Arena](#) © 2009-2012 [Achim Pietig](#), hosted by [Schachcomputer.info Wiki](#)
6. <sup>^</sup> [Leonardo](#) from [Chess Computer UK](#) by [Mike Watters](#)
7. <sup>^</sup> [Gavon](#) image courtesy [Josu Bergara Ede](#)

8. ^ Due to [power supply](#) issues, the [Sparc](#) module was only compatible in later or modified Renaissance boards, [Saitek Renaissance Sparc](#) from [Chess Computer UK](#) by [Mike Watters](#)

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