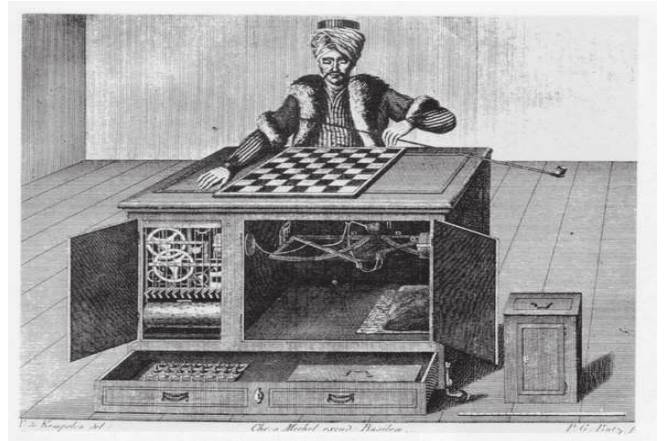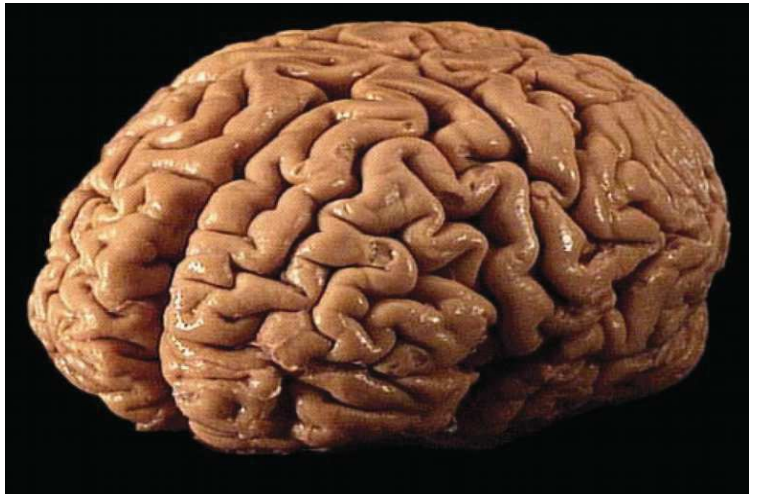# Micromouse

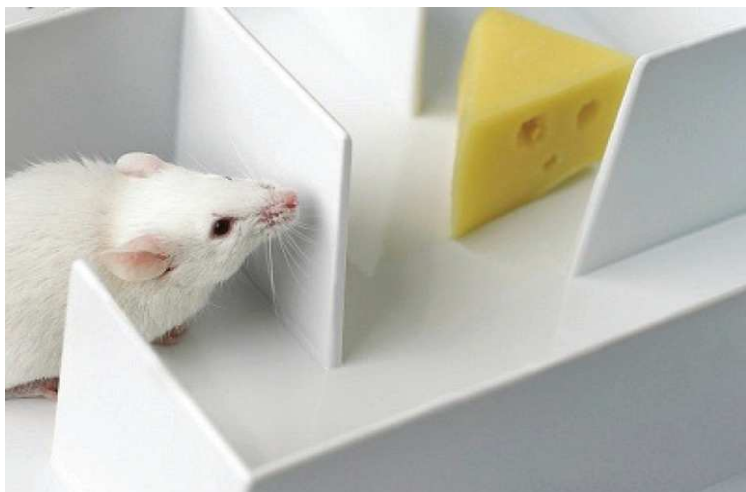Kempelenov šachový automat (Pressburg, 1782)

Minos and Theseus Legend (roman mosaic)

Photo: Dillon.ch

Human brain

Photo: National Geographics
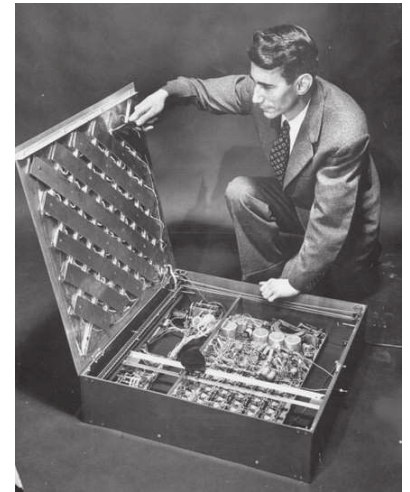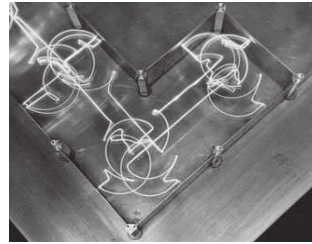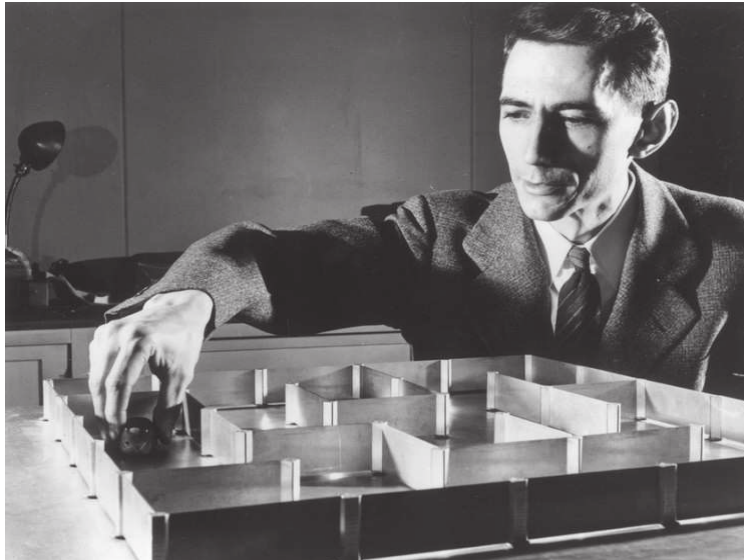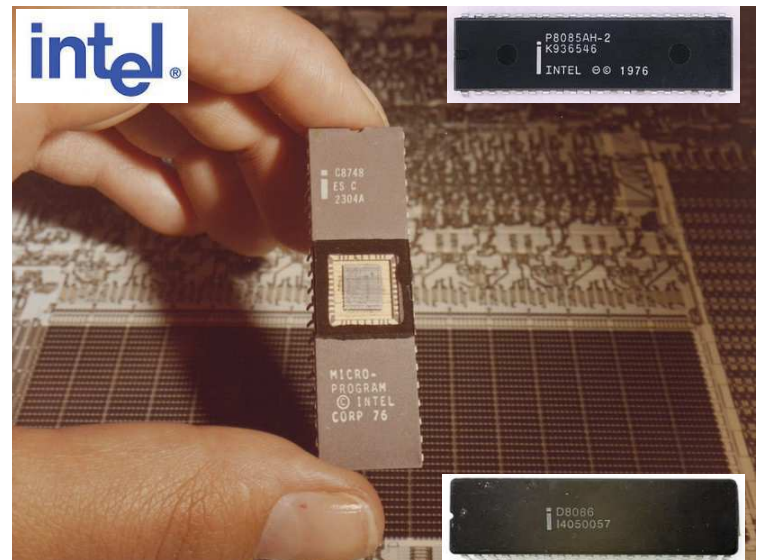

Mouse in a maze.

Photo: Inmagine.com

1950

AT&T
Bell Laboratories

intel.

P8085AH-2
K936546
INTEL ©© 1976

C8748
ES C
2304A

MICRO-
PROGRAM
© INTEL
CORP 76

D8086
14050057

1976

1977

IEEE
Advancing Technology
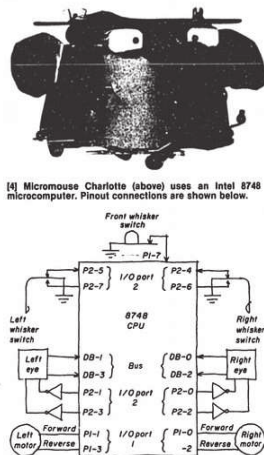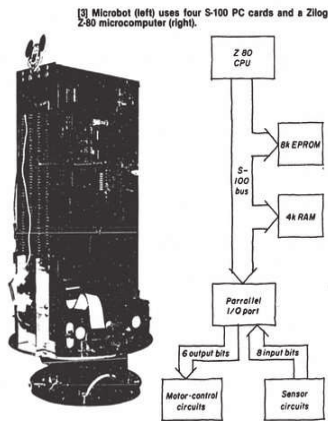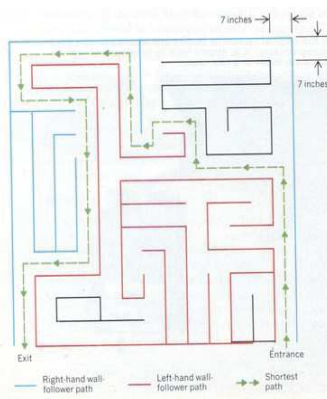for Humanity

MAY | VOLUME 14 □ NUMBER 5

spectral lines

Announcing the Amazing Micro-Mouse Maze Contest

It was through mere happenstance that *Spectrum*'s editors learned—by means of word propagated along the industry grapevine—of a so-called electronic mouse ("le mouse electronique" were the exact words that reached our ears). Upon assigning our top investigative reporters to the task of finding out the true facts, we quickly found that in January the magazine *Machine Design* had indeed called for designers and constructors of "electronique" mice to enter The Great Clock Climbing Contest. Contestants would be required to construct a mechanical mouse that could attempt to climb a vertical mesh screen ("le clock," one supposes). Our disappointment came

Be that as it may, the Utah tests led to the idea of the Le Mouse II contest announced in January by *Machine Design*. (Sorry, the deadline for registration was March 1.) Beyond that, it set *Spectrum*'s engineer–editors to wondering why a true electronic mouse could not be built. We put our heads together and, after a few days of concentrated after-hours brainstorming, became convinced that the plan was feasible. In short, *Spectrum* would run its own real electronic mouse contest. The mice would be required to negotiate a maze (officially named the Mystery Mouse Maze because its configuration would be kept a closely guarded secret until race day). The contestants

[3] Microbot (left) uses four S-100 PC cards and a Zilog Z-80 microcomputer (right).

[4] Micromouse Charlotte (above) uses an Intel 8748 microcomputer. Pinout connections are shown below.

1979

7 inches → ← →

7 inches

Exit
Entrance

— Right-hand wall-follower path
— Left-hand wall-follower path
→ Shortest path

I. Box score of the final race, in order of running

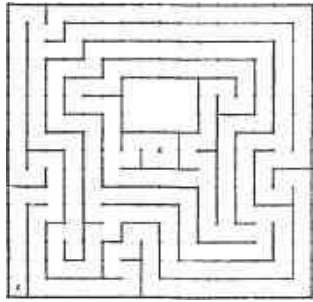| Mouse	Designers/ handlers	Run 1, seconds	Run 2, seconds	Run 3, seconds
Dudley	David Schaefer, Roger Sanderson	Aborted	Aborted	252
Mikey	Michael Rigsby	Aborted	Aborted	Aborted
Mini	Anelle Rigsby	Aborted	Aborted	Aborted
Mushka	Bob Norton, John Ditner	Aborted	Aborted	94.74
Theseus	Dave Ziffer, Scott Pector, Robert Matz	Aborted	Aborted	Aborted
Charlotte	Earl Kalbfleisch	Aborted	Aborted	Aborted
Moonlight Special	Art Boland, Ron Dilbeck, Phil Stover	66.98	50.70	50.38
Moonlight Flash	Art Boland, Ron Dilbeck, Phil Stover	30.04	30.62	29.78
Moonlight Express	Art Boland, Ron Dilbeck, Phil Stover	100.88	31.36	31.16
Harvey Wall-banger	Gary Gordon, Gary Sasaki, Ken MacLeod	41.68	40.42	39.96
Mazey	Tony Rosetti, Peter Rowe, Steve Allen	Aborted	Aborted	Aborted
Kimbot	Mark Kantrowitz	Aborted	Aborted	*
Wampus II	David Block	Aborted	*	*
Catty-wampus	Howard Katseff, Michael Sipser	Aborted	Aborted	Aborted
Microbot	James Hamblen	Aborted	Aborted	Aborted

* Run not taken

6000 / 15 / 6

[1] Moonlight Express, improved in speed over its predecessor, the Moonlight Special, won the prize for fastest smart mouse. It solved *Spectrum*'s maze in consecutive runs of 100.88, 31.36, and 31.16 s. Like the Moonlight Special, the Express was based on a Z-80A microprocessor. Its five appendages carried optical elements to guide it through the maze.

Harvey Wallbanger was the first wall-hugging micromouse to solve *Spectrum*'s maze in less than one minute (at the third time trial in Los Angeles). It had no intelligence and followed the right wall. It won the runner-up fastest mouse prize with a first-try run of 41.68 s in the finals.
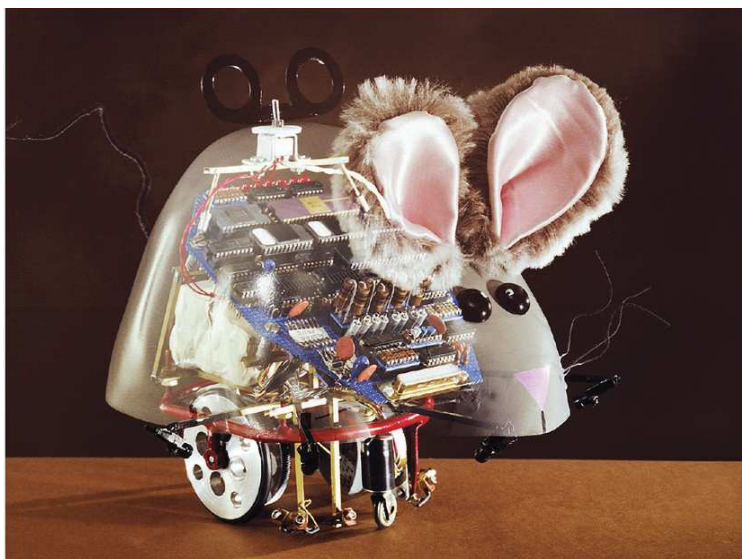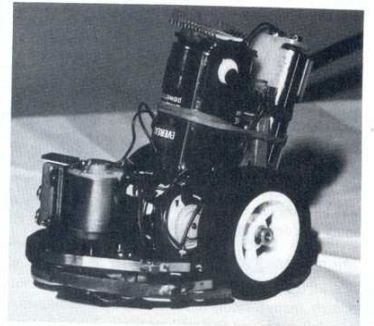
1980

	- First Run -		
Mouse	Order	Time	Penalty
Amcomical	8	1:30	----
Brainy Bricks	2	10:00	1:30
Fred	1	4:40	:30
LAMI	3	3:30	----
Meryl	4	1:45	4:00
Midnight Sun	5	1:29	2:00
Pascal	5	2:07	1:00
Stirling Mouse	7	3:49 *	2:00
Yamabiko	-	----	----

	- Learning -		
Mouse	Order	Time	Penalty
Amcomical	2	4:11 L	7:00
Brainy Bricks	1	3:42	7:30
Fred	3	5:00	7:00
LAMI	4	3:49 L	----
Meryl	5	1:28 L	----
Midnight Sun	6	0:15 L	6:00
Pascal	-	----	----
Stirling Mouse	7	2:50	6:00
Yamabiko	-	----	----

The first European contests were a Portsmouth preliminary on 1st July 1980, and the London finals on 17th September at EuroMicro 80. The European mazes were 16 by 16 units, and had a centre goal.

1985
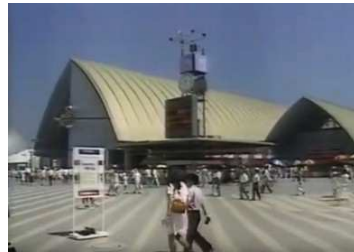
23 S. I. T. XⅢ号 ・芝浦工業大学電気工学科
24 NORIKO-X2 ・福山マイコンクラブ(境番井谷野村)
25 NORIKO-X3 ・福山マイコンクラブ(境番井谷野村)
26 Speedy Gonzales ・Ralf Hinkel (西独)
27 Manu ・Hannu-Matti (フィンランド)
28 Enterprise ・David Woodfield (英)
29 NORIKO-X5 ・福山マイコンクラブ(境番井谷野村)
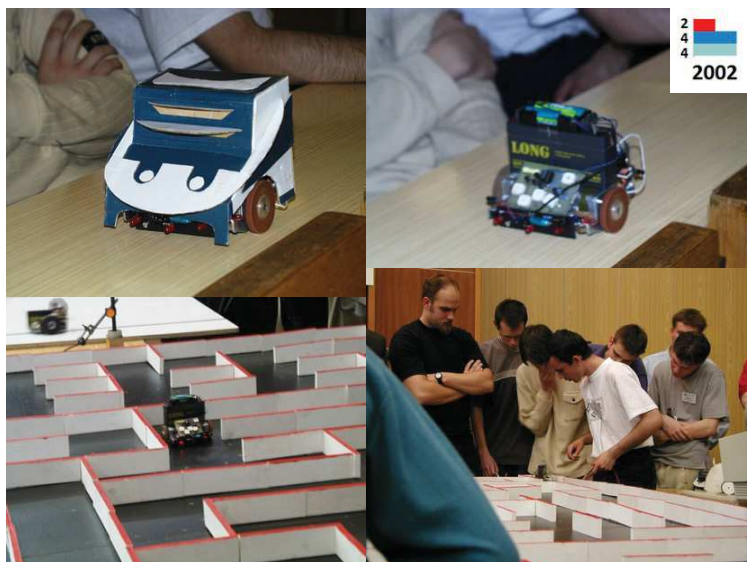30 NORIKO-X1 ・福山マイコンクラブ(境番井谷野村)
31 E M I ・福山マイコンクラブ(上広季幸)

2001

BLACK BOX (日本)

LABO-3号 (日本)

19秒83

NORIKO-X1 (日本)

https://youtu.be/Y0ogmQ3hYpY
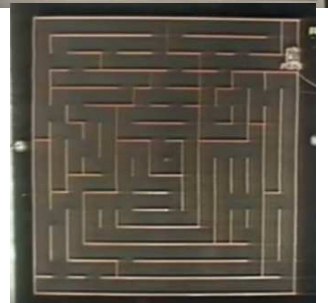
ISTROBOT

☐ Stopár
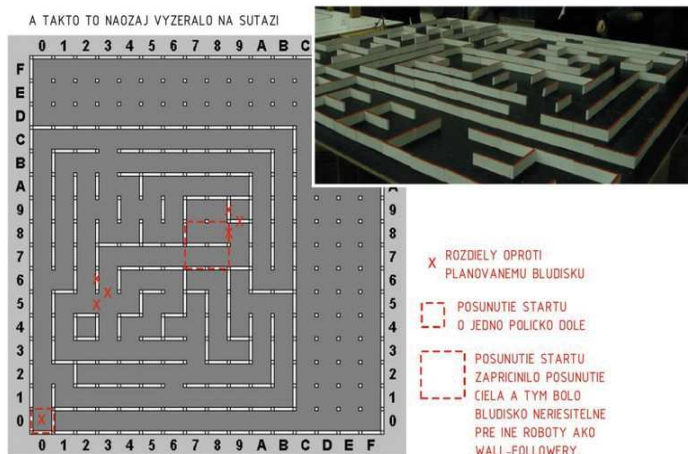☐ Myš v bludisku
☐ Voľná jazda

Bludisko – výzva pre ďalší ročník

25. apríla 2001 sa na Fakulte elektrotechniky a informatiky STU uskutočnil prvý ročník súťaže mobilných autonómnych robotov

2001

2002

2
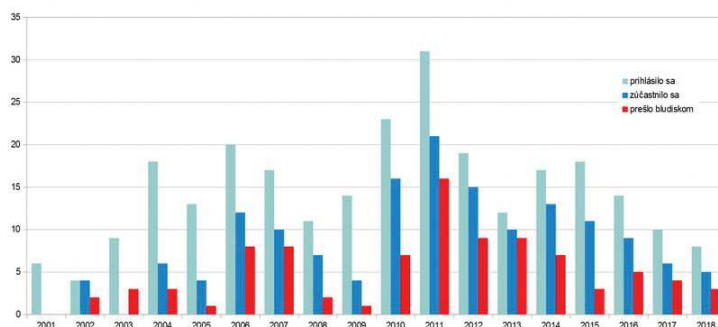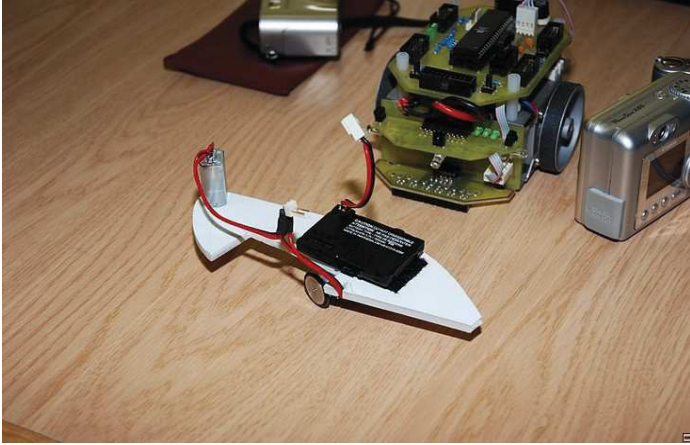4
4
2002

A TAKTO TO NAOZAJ VYZERALO NA SUTAZI

x   ROZDIELY OPROTI PLANOVANEMU BLUDISKU

☐ POSUNUTIE STARTU O JEDNO POLICKO DOLE

☐ POSUNUTIE STARTU ZAPRICINILO POSUNUTIE CIELA A TYM BOLO BLUDISKO NERIESITELNE PRE INE ROBOTY AKO WALL-FOLLOWERY.

2003-18

2003-18

2007

To be continued...