

Sinclair ZX80

The Sinclair ZX80 was a home computer brought to market in 1980 by Sinclair Research of Cambridge, England. It was notable for being the first computer available in the United Kingdom for under a hundred pounds. It was available in kit form, where purchasers had to assemble and solder it together, and as a ready-built version at a slightly higher cost for those without the skill or inclination to build their own unit. The ZX80 was very popular straight away, and there was for some time a waiting list of several months for either version of the machine.



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TECHFOCUS

Building the Time Machine

ASIF RAYHAN RASHA

AFTER the famous science fiction, The Time Machine, written by HG Wells in 1895, the concept became a craze for the people throughout the globe. People began to think about it and wonder if time travel is really possible. Would our scientists be able to develop such a machine that can transport us to any wonderful event that took place in the past and give us a chance to experience it once again? Or would it give us the opportunity to visit our future and see where we will be? Can we be able to alter our past and erase the awful moments that had happened or wipe away the dreadful moment that is going to happen? Many questions aroused in the mind of people. But scientists in the 20th century had come up with some original ideas that might allow us for time travelling.

What can a time machine do?

According to the scientist of the 21st century, time machine is a device that can transport us only to the future, but not in the past. Scientists had developed a model of time machine that can transport us to the future. You will be surprised to know that instances of time travel happen in our ordinary daily life.

Time travel happens in every-day life

If you buy two clocks of same manufacturer, each using same battery and put one clock in the first floor and another in the sixth floor, after a few days, you will observe that the clock in the first floor became slow about a second than the clock at the sixth floor. Why is that? Wouldn't it be surprising? Do you have any answer? But scientists in this century believe that gravity slows down time. Of course, gravity is something you're familiar with. Gravitational force at the first floor is slightly more than at sixth floor. But we don't observe this weird time wrap. Even peoples in an airplanes traveling at 920km/h for eight hours would be twenty nan



Earth and the moon

oseconds (one nanosecond- a billionth of a second) ahead than you! That means they are time travelers! So gravity and speed are the factors to jump ahead of time as we see from the two facts.

Time traveling by using grav-

ity

From the previous fact, we had come to know that gravity can be used to build a time machine. But to do that, we need extreme gravitational force that can produce time dilation (extending time). Scientists are confident that if this is possible, than time travel is possible. For this we need only two things, a wormhole and a neutron star.

Time traveling using

Wormhole and Neutron star

A galaxy consists of many solar systems and stars, Neutron stars, black holes etc. We only know our galaxy (Milky Way) and our neighboring galaxy (Andromeda). A wormhole is a tunnel that would transport us from one galaxy to the other galaxy within a very short period of time by its extreme gravitational power. It can be considered as a shortcut connecting two different places in space.

Though we don't have any evidence of wormhole in our galaxy, but theoretically, it is possible. We can also make an artificial wormhole by using particle accelerator. Already CERN (the world's largest research institute in Switzerland) had developed a particle accelerator which is 27km long. After finding or building a wormhole, we have to stabilize the wormhole by using negative energy, produced by quantum

mean called Casimir effect, which would prevent the wormhole from becoming a black hole.

Then we have to tow one mouth of the wormhole and position it near the surface of the neutron star.

Stars like sun had an average life expectancy of about 10 billion years. Our sun would stop its nuclear reaction after 10 billion years. Then it will become a neutron star. It is called neutron star because after the death of the star, the gravitational force would become so strong that the electrons in the atoms of the stars are forced to enter the nucleus and collide with the protons to form neutrons. So only neutron exists in the atom and it becomes a neutron star. The intense gravity at the mouth of the wormhole with neutron star causes time to pass very slowly. Because time passes more quickly at the other mouth, so any object on entering the mouth close to the neutron star would come out through the other mouth at very high speed and escaping the present and it will be a time traveler.

Now you might think that if I travel back to future and meet myself (The future me) than what would happen? According to quantum mechanics, infinite number of particles can exist at same time in the universe. It means that a person named John can exist in infinite numbers. So it is not impossible. Now a student might think to jump in future by using time machine, take his exam question paper, then travel back to the moment when he left for the future, and then score good marks in exam. But it is not possible. Because when he travels to future, he cannot travel back to past, as I said: traveling to past will be not possible.

But some scientists claim that traveling to past might be possible. Even Albert Einstein said that in some condition, his general theory of relativity might allow to travel past. Even I think that an object moving with infinite speed vertically and horizontally when put under some certain condition can travel to the past.

Though we had built particle accelerator, it cannot create sub-atomic wormhole that survive long enough for particles to execute fleeting casual loop. And still it would take ages to build a next generation spaceship that can tow a neutron star. But modern science had made so many miracles recently like nanotechnology, creation of anti-matter, satellites and hi-tech spaceships that it is not far enough when science would be presenting us the greatest invention of all times - the Time Machine.

The information presented in this article was collected from the internet, various books and encyclopedias.

TECHREVIEW

Fifa 07

An experience much closer to the real game



AHMED ASHIFUL HAQUE

E A brings out a new FIFA game every year. Is this new one any good?

Absolutely! And just like each new game in the series, FIFA 07 plays better, looks better and is a better experience than ever before. The gameplay is more fluid, the player animations are more natural and free-flowing and the ball movement mimics real life much more closely. As a result, FIFA 07 is a much more enjoyable experience.

The improvements FIFA 07 has to offer are more a case of evolution than revolution, with the latest in the series building on the elements of FIFA 06 that worked well rather than starting from scratch. As result all of the positives that in the past have made FIFA the best-selling football game on the planet - the hundreds of officially licensed clubs and players, intuitive controls, superb presentation and killer soundtrack - are all present and correct. But it's the fine-tuned gameplay and new ball physics that really stand out and make FIFA 07 a great game rather than just a good one.

Playing FIFA 07 is an experience much closer to the real game than ever before and that's largely down to the way the ball now reacts: EA cranked up the complexity of the ball physics so that the game feels more natural and the ball reacts in a much more organic way. Fumbling goalies, awkward

deflections and other on-pitch occurrences like handballs - all part of the beautiful game in real life - are in FIFA 07 too, but they happen randomly rather than being associated to a predetermined animation or particular set-piece.

This is clearly the best-playing FIFA game ever made, but that merely puts it above some of the most average-playing soccer games ever made. Even with the improvements, the game remains far too simple tactically. You can easily

cunning passes. It leads to a complete lack of "WOW!" moments, because you don't have to fight your way in for opportunities. The dramatic build up just isn't there. As much as the improved control would imply that this is a more realistic game, it's still too basic around the edges.

Every year, FIFA promises revolutionary gameplay and ends up delivering the best soundtrack in sports games. This year, they've finally pushed further than ever before (on the



scoot the ball up to your strikers in three button presses (or less) without the complication of the defence getting in the way. Once you get close to the goal, the defence will lock down, but scoring opportunities will develop in a matter of seconds, as opposed to creating them with hard work, smarts, and

gameplay side), and it's a decently rewarding experience. The gap between the FIFA series and Pro Evolution Soccer is smaller than ever before!

TECHNEWS

Taking aim at Apple, Sony unveils five new Walkmans

AFP, Tokyo

SONY has unveiled five new Walkman portable digital music players as the struggling electronics giant steps up efforts to catch up with Apple's phenomenally successful iPod.

Three new NW-S700F oblong-shaped players, which have in-ear noise reduction earphones to block outside sounds, will go on sale from October 21, followed by two new NW-S600 series models on November 18.

"Ways to enjoy music have been diversifying and changing. This is Sony's best business opportunity," said Kiyoshi Shikano, corporate senior vice president at Sony Marketing Japan Inc, on Thursday.

"We have absolute confidence on the high sound quality, which is Sony's quintessence. We would like to raise our market share in portable music players further from the current 20 percent level in Japan," he told a launch event.

Sony also announced the three new additions to its NetJuke range which allows users to download music to a hi-fi system and save it on a hard drive.

The new Walkmans will allow users to listen to about three



hours of music on a three minute charge, and up to 50 hours on a two hour charge.

Sony has increasingly tried to repack the Walkman as it takes aim at Apple Computer's hit iPod music player, last year for example targeting a younger crowd with a Walkman that looks like jelly beans.

Sony's first Walkman tape cassette players in 1979 revolutionized the way the world listened to music at the start of the music-video era but the iconic Japanese company was taken by surprise by the success of the iPod.

In September last year,

Sony's first foreign head Howard Stringer announced a major overhaul of the business including 10,000 job cuts as the company struggles to recover from a profit slump.

Sony announced in January that the Walkman would no longer be made in Japan, shifting production to China and Malaysia.

The NW-S700F models will come in four colours with prices starting at 18,000 yen (151 dollars) while the NW-S600 offers a choice of three colours with a price tag of 15,000 yen and upward.

PHOTOTECH



BEAUTY AND THE BOT

Miss Universe Australia Erin McNaught tries out the new RS Media Robot during an Australian launch in Sydney on October 10. RS Media is your own personal entertainment centre with a chest mounted LCD screen that displays images and MPEG video in colour. The robot comes with PC software (including USB port interface and SD card slot) that allows you to edit his movements, sound files and video files and even some of his programming, so you can assign specific voice files or choreograph a routine to a favourite dance track.

PHOTO: AFP