



EXCLUSIVE FEATURES

SEPTEMBER 2009

Play Film

Chapters

Features

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MVDIT ROBO Club



Which GFX to buy!



Douglass Engelbart





EDITORIAL

It is my pleasure to present to you this edition of my magazine to you.

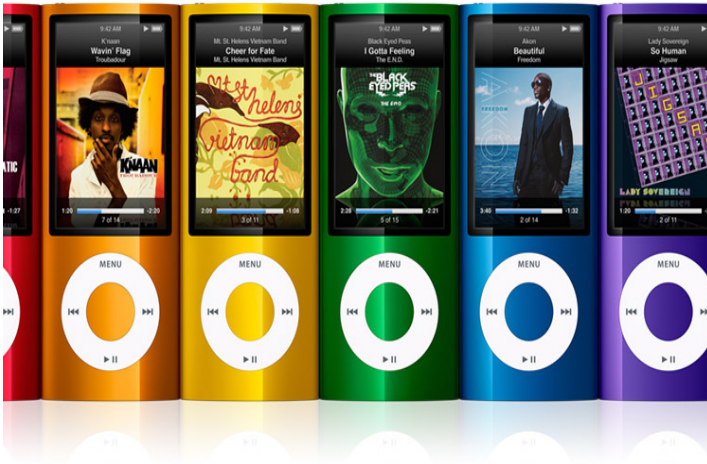
This edition of the e-zine has much in store for Everybody in technology. A cover story on iPod Nano 5G, FIFA 10 preview, iTunes 9 Review, A guide to buy the best GFX Cards, and ofcourse all are routine articles.

Many of our readers think that teh magazine is too late for each month. I would like to clarify that we publish the magazines later in the month, as we cover the Technology news all month, and then combine it by the end of the month, in the 3rd or 4th week.

The different editions for magazines are available for download at www.mvdittechbook.co.nr in a pdf format. Suggestions are welcome for the improvement of the magazine.

Vidit Bhargava
Editor MVDIT TECH BOOK

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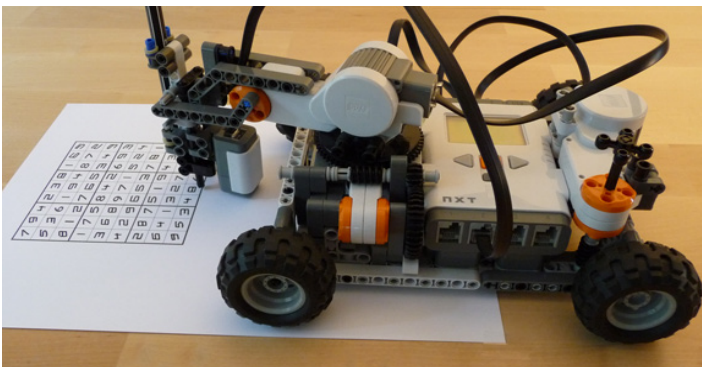
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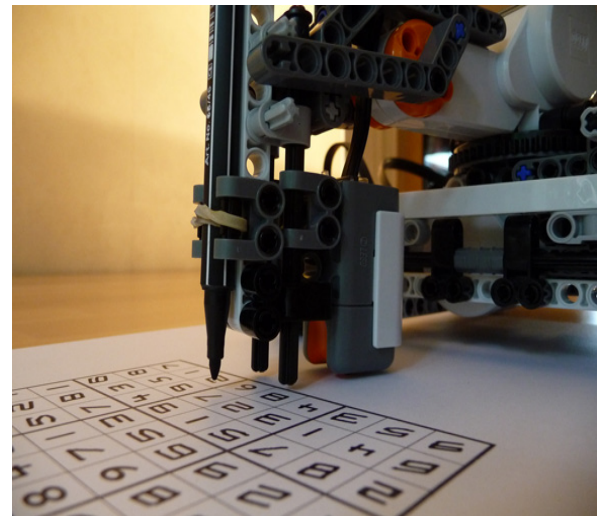
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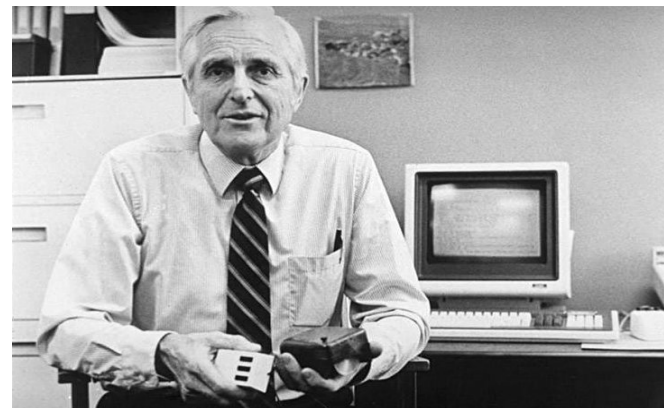
MVDIT ROBOTICS CLUB

LEGO MINDSTORMS SUDOKU SOLVER



MOBILES

CHANGE YOUR OPERATOR IN 4 DAYS



Mega Inventors

Douglas Engelbart

Inventor of the Mouse

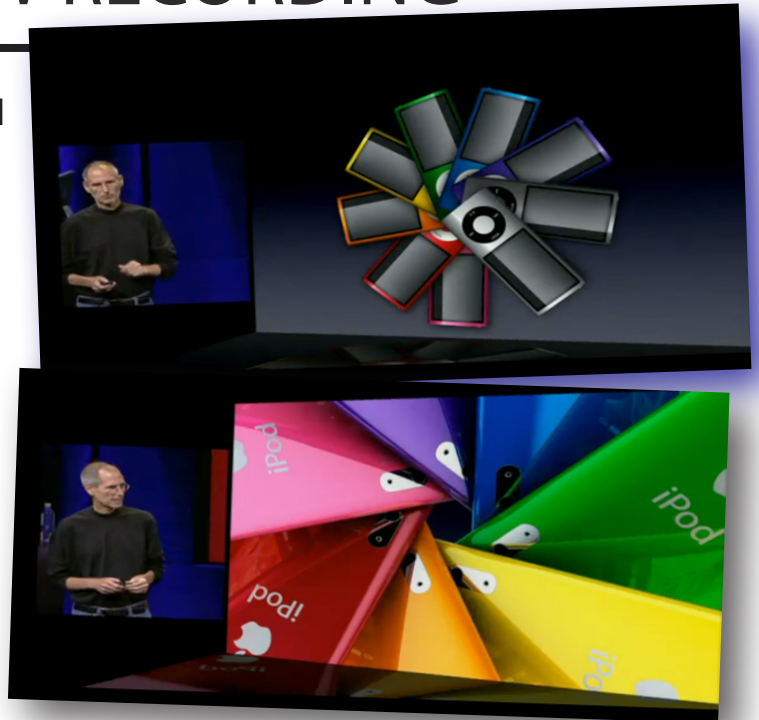
COVER STORY

IPOD NANO 5G - NOW RECORDING

Vidit Bhargava

The major announcement was of the new iPod Nano in the Apple Music Event 09. Though the iPod hasn't changed much in Physical appearance but has prominent changes in internal features.

Fitness : The Nike + iPod Sport kit, first introduced in 2007, with iPod Nano 3G, has improved ever since then. The New iPod Nano has a built in Pedometer which helps you keep track your fitness progress. It uses the built-in accelerometer to keep track of your steps and help you meet your fitness goals. You can create a daily step goal or set it to



Always On so it counts all the steps you take, all the time. Finally the iPod syncs with the computer and sends reports of the overall workout done. As you run, iPod nano tells you your time, distance, pace, and calories burned. It gives you feedback at the halfway point and as you push to the finish line.

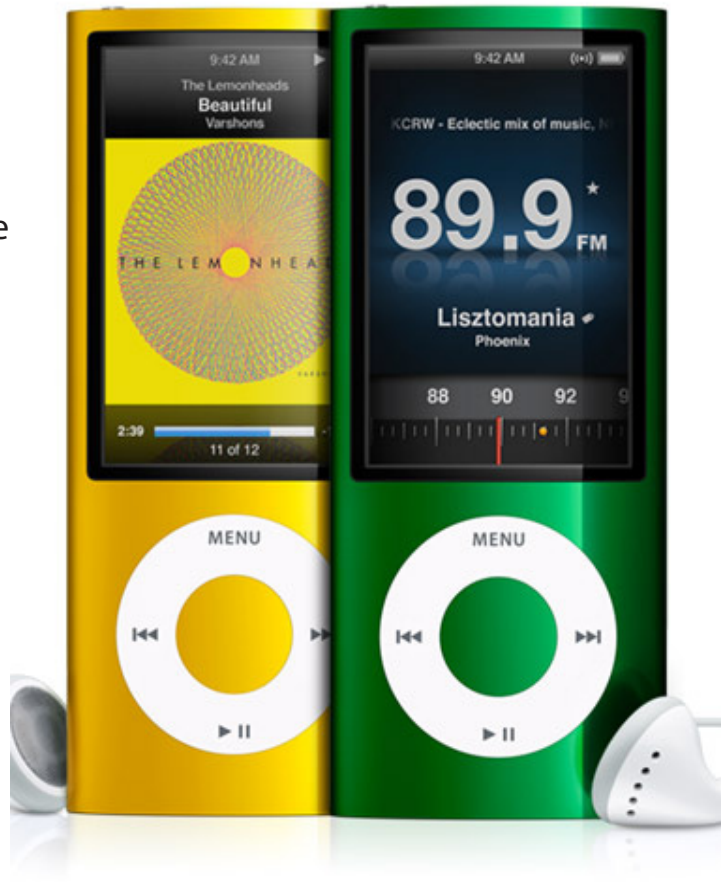
Voice Over: This feature was introduced in the new iPod Shuffle, and was expected to be added in all iPods from then. The iPod Nano 5G has the same voice over commands as iPod Shuffle, it tells you the title and artist of the song you listen to it even tells the details on demand. This is one of the features I have liked in every iPod and iPhone. It certainly makes the music player more interactive, than ever.

FM Radio + Live Pause: A dream feature for

me, I have always wanted this. The inbuilt FM radio is the most astonishing feature, I have ever seen in any Music Player. This is why : The new FM tuner lets you see the names of songs and artists. iTunes Tagging and Live Pause make listening to the radio nothing like listening to the radio.

Genius Mixes: The genius mixes feature just like a DJ, creates a whole lot of songs into maximum 12 playlists and syncs them to iPod, making it possible for to listen them on the move, and ofcourse, the Genius Playlist option is also on the iPod nano, allowing the users to create Genius Playlist whenever they want.

Video Recording: The best feature is a built-in video camera. Though, contradictory enough to my dislike to this feature, as it is only a



images. The Video Camera, is a QVGA camera, but is almost of HD quality.

The special effects from the iChat video conferencing are also included, common effects like sepia, motion blur and Mirror are included with the new and unique Cyborg, Xray, and Thermal It also includes many others.

The camera is on the lower left corner, this again shows apple's out of the box thinking and doing it rather perfectly.

Minor Physical Changes: The Screen gets .2" larger, we have the metallic polished body, and a QVGA camera at the back.

Concluding, the report I would say it is a great iPod yet again, but the Video Camera leaves work for the next year.



Abditi Technology Times

28th September 2009 - Sunday Source : Wall Street Journal

Jobs Takes Stage at Apple Event

Steve Jobs appeared in public for the first time since the Apple Inc. chief executive received a liver transplant earlier this year, showing he was back in charge and allaying some concerns about his health.

Mr. Jobs, taking the stage at an event in San Francisco, unveiled new offerings that included an iPod Nano with a video camera, and stressed the use of the iPod touch as a platform for videogames. Apple also dropped prices across its iPod lineup as the company tries to revive slowing sales.

An overhaul of the iPod line was widely expected, given the slowing sales of existing models and stiffening competition.



Facebook Sets Deal to Provide Ad Data to Nielsen

Facebook Inc. plans to announce a deal with online measurement company Nielsen Co., in a step to address advertisers' frustration with measuring how ads perform on the social network.

Under the partnership, Facebook will begin polling its users about some of the display ads it runs on its site, such as a banner promoting a movie release.

Facebook will provide that data, including responses from those who didn't see an ad, to Nielsen, which will package it for advertisers, say the companies.

Facebook Chief Operating Officer Sheryl Sandberg is planning to introduce the product, called Nielsen Brand Lift

Intel Sees Market for PCs Stabilizing

Intel Corp.'s chief executive said he expects PC unit sales for the year will end their declines and be "flat to slightly" up.

"I think [the PC industry] is more than resilient, it's amazing," said Paul Otellini, who spoke at Intel's annual forum for technology developers here.

Mr. Otellini noted that many forecasters had originally expected a big drop in unit personal-computer sales for 2009, and most still call for a slight decline.

Gaming

EA Sports FIFA 10

EA SPORTS FIFA 10 gives players new levels of control to experience the beautiful game like never before.



Key features

Innovative Player Control - 360° Dribbling

The first-ever true 360° dribbling system in a football game gives you precise control to skillfully play spaces between defenders that previously were not possible.

Gameplay Features - Physical Play Freedom

Wider dribble touches and new collision sharing allow for a less predictable yet extended fight for possession, resulting in more realistic battles between the dribbler and his defender.

Gameplay Features - Player Urgency

Improved Urgency AI logic, with over 50 new movement cycles, delivers more responsive positioning so your players stay focused on the ball and move at a speed appropriate to the action.

Gameplay Features - More Accurate Passing

Players better analyze space, resulting in pinpoint passes that give their receivers more options and time to outrun defensive pressure.

Authentic Manager Mode

With over 50 improvements, FIFA 10's new Manager Mode is as close as you can get to running a team without actually being named to the job.

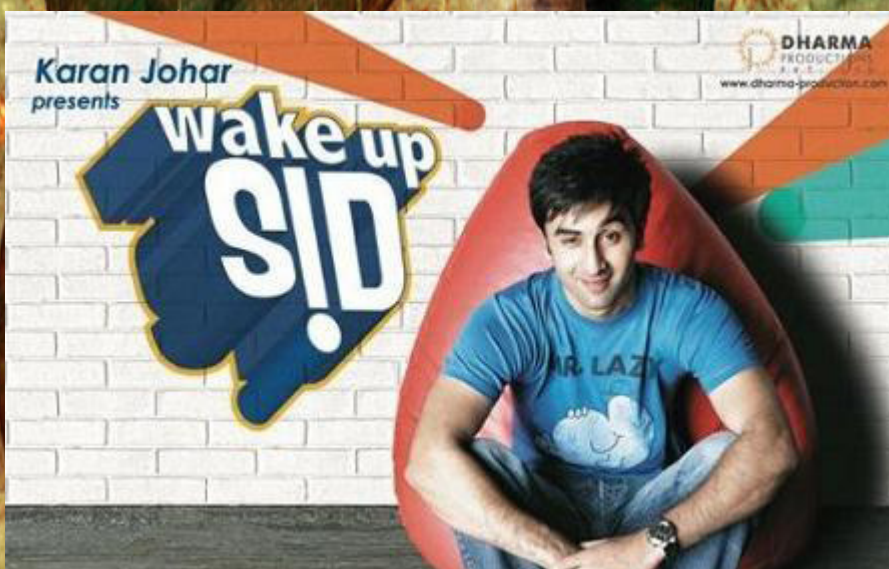
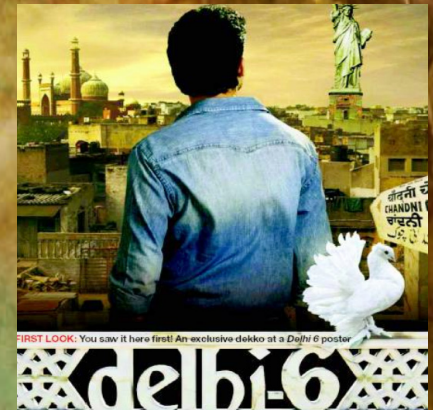
Development

Just like on an actual team, the growth curve of your star players is based on multiple factors such as their playing environment and the demands placed on them.

Source: EA SPORTS

READER'S PLAYLIST MUST BUY THIS MONTH

1. Chiggy Wiggy - Blue
2. Fiqrana - Blue
3. Yaar Mila Tha - Blue
4. Aaj Dil Gustakh - Blue
5. Genda Phool - Delhi 6
6. Bhoola Tujhe - Blue
7. Hey Kaala Bandar - Delhi 6
8. Rehnuma - Blue
9. Emotional Atyachar - Dev D
10. Blue Theme - Blue
11. Kya Karoon - Wake Up Sid
12. Iktara - Wake Up Sid
13. Dhan Te Nan - Kaminey
14. Chehre Jo Dekhe - What's Your Rashee
15. Wake Up Sid - Shankar Ehsaan Loy



CHANGE YOUR OPERATOR IN 4 DAYS

Courtesy: HINDUSTAN TIMES

If you are unhappy with your mobile service provider, you won't have to put up with it for much longer. Very soon, you will be able to switch to another telecom operator, without having to change your mobile number. All it will take is an application and a four-day wait. But there are a few conditions attached. For instance, you can switch operators only after being with one for three months.

Having already set a deadline for mobile number portability (MNP), the Telecom Regulatory Authority of India (TRAI) on Wednesday announced several regulations related to it.

These regulations allow subscribers to retain their existing mobile numbers, whether they change telecom operators, or switch from one cellular mobile technology to another of the same service provider.

A subscriber can apply for change of operator after 90 days of the date of activation of his mobile connection with the existing operator. He will have to apply for MNP to the operator he wants to shift to.

He may be required to pay a fee for the switch and will have to clear all bills issued prior to the date of his request.

A subscriber may also withdraw his application within 24 hours of submitting it.

The government had earlier announced a deadline of December 31 for implementation of MNP in metros and Category A circles (Karnataka, Tamil Nadu, Gujarat and Maharashtra) and March 20, 2010 for the rest of the country.

"The introduction of MNP will increase competition between telecom operators and act as a catalyst for them to improve quality of service," said TRAI chairman J.S. Sarma.

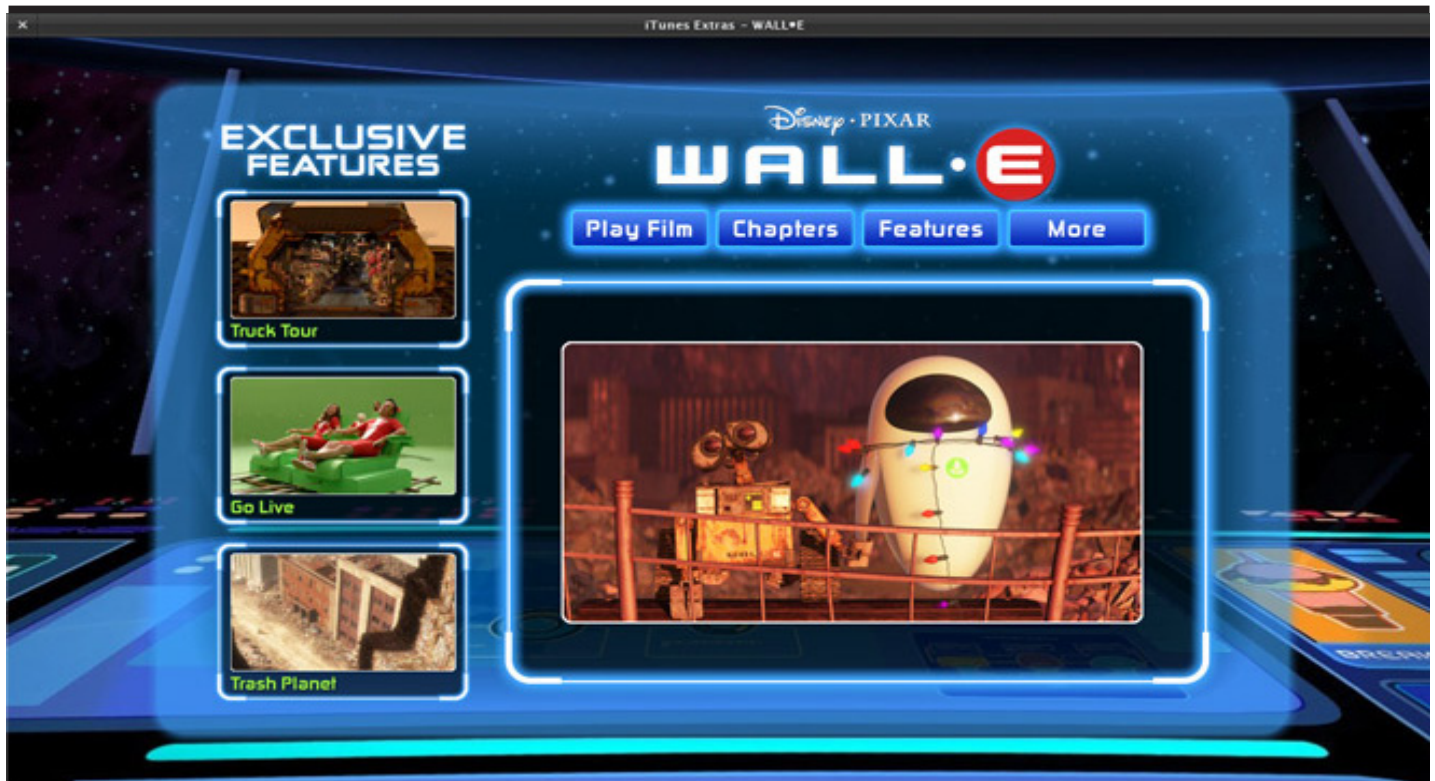
GOING MOBILE



- A subscriber will have to put in an application to the operator he wants to switch to.
- He may have to pay a fee, and will have to clear all outstanding bills.
- The switch will happen 4 days from the date of submission of the application.
- The subscriber can retain his old number.

SOFTWARE REVIEWS

iTunes 9



Vidit Bhargava

Rating: ★★★★★

iTunes 9 is more of an online upgrade rather than a software one! One of the only few things updated in terms of software is the 'genius mixes': "This is just like a DJ", Steve Jobs CEO Apple Inc. and well truly it is, you get at max. 12 mixes in the genius. However, if your music library is not too big or very specific like mine you won't be getting more than 1 mix.

This is sometimes irritating as well because you don't know actually what's playing next! but let's just concentrate on why it is made. It intends to provide the user a hassle-free listening while he's doing some important work. I must say with the genius technology embedded it'll just get better day by day and does its work perfectly well. By the way it's on iPods and

iPhone as well.

Smart playlists: Just want to be a bit specific? Here are smart playlists. You can specify which artist to be included which to be excluded and sort. This of course to me is a bit useless because you already have a genius playlist option and it gets quite complicated to choose your songs with this option. My verdict: Not too smart!

iTunes LP: The visual experience of the record album returns with iTunes LP. Download selected albums and experience a beautifully designed, interactive world right in your iTunes library on a Mac or PC. This one gives you a great experience, it is really sort of a virtual album. You get a whole lot of Extra features

with your Audio CD, and even more. You get lyrics, Videos, credits and ofcourse great visual appearance. I truly wait for them to come in India, since they don't have an iTunes Music Store in the country it'll take a long time.

iTunes Extra: iTunes LP was something to do with songs and ACDs. The iTunes Extras does it in the Movies Sections. Yes you guessed it right. You now get DVD like features after downloading a Movie from the iTunes Extras library, and yes I have seen them on an hands-on preview. They are great! It is you get an HD Video Quality + Extra features like Deleted Scenes, Different Chapters and other great features.

Other Improvements: Other little improvements have always been made, Like A Home Sharing access which allows the users to



share there music library anywhere in the Home Network of MACs or PCs. Then we have an improved iPod and iPhone syncing. which gives us an iPhone simulation and allows us to arrange apps in an easy way. Finally little and Major improvements in iTunes Store have also been made

Overall Performance: I have told you about all the features of the iTunes 9 now lets tell how they work! It is truly an Apple work, they have done the best for these features and their performance but I still believe one expected more from iTunes 9 it can be rather called now 'iTunes Store 9' as only Store improvements seam to be there. Nothing much then, they could have done more to release this update, but still I like it for all the above features! I'll give it 3 out of 5.

A guide to buy the best GFX CARDS

Vidit Bhargava

Basic Range

If you are a casual gamer then these cards may be the best for you.

NVIDIA GeForce 8500GT - 2.5/5

What this card will do is give you DX10 compliance. One more thing to note here is that Nvidia has clearly raised the bar for their entry level cards with respect to the last generation of graphic cards they released.

The Galaxy GeForce 8500GT is available for Rs. 2500/- with a 3-year warranty. Now that my friend, is a neat deal.

NVIDIA GeForce 8600GT - 3/5

The Galaxy GeForce 8600GT 256 MB graphics card is available for Rs.

3500/- with a 3-year warranty. Overall it's a good performer; better than the midrange cards of the previous generation. Guess the common sense approach of using unified shaders is gonna start to pay off. If you are looking for a good card under 5K, this one's for you, but I'll still reckon a card with more VRAM.

NVIDIA GeForce 9500GT - 3.5/5

The Zotac 9500GT sells in the range of 3.5K and comes with a 5-year warranty. This is for the version with 512MB GDDR3 memory.

One thing I liked about this card is the cooler with a custom fan, which is really quite, and even when overclocked at a high level the card barely gets warm.

If you need the Hybrid Power feature then you may want to look into the different 9500GT variants and pick the one that's best suited for your budget. This is no doubt a good performing card. And is my pick of the month, I would certainly go with this one. If I were to choose from the other two above.

ATI Radeon HD4550 - 3/5

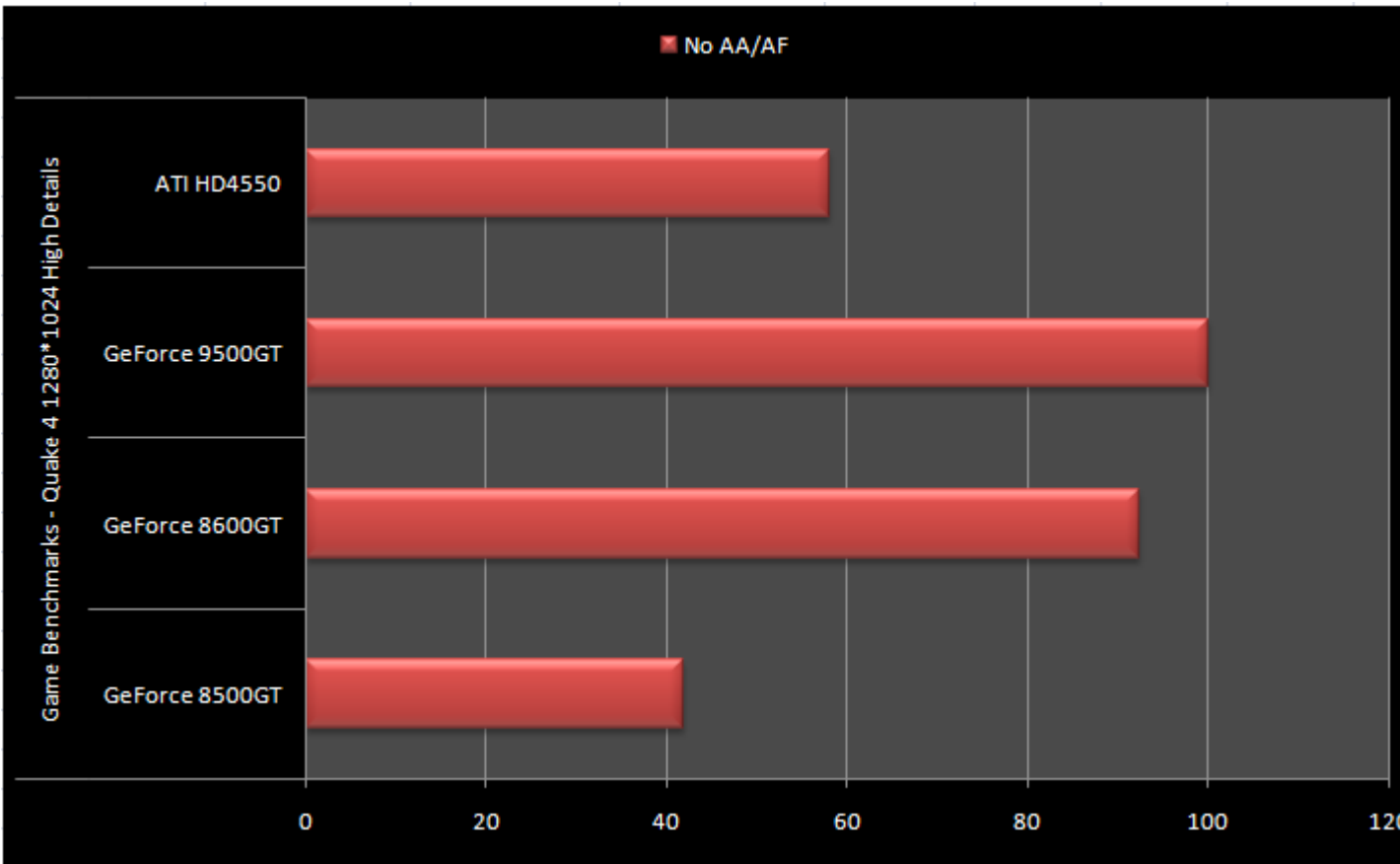
The pricing for the HD4550 is around 3.5K-4K and the warranty is the standard 3-year warranty. If Palit, ASUS, MSI and the other AIB partners actually do price it at that level then this card is going to be a runaway success. On the temperature front, even under maximum load the card recorded a maximum temperature of just 55 degrees Celsius.

It is slightly better when it comes to gaming compared to the 9400GT and even in our HD playback and quality tests it comes ahead of Nvidia's offering. Couple that with the minimalist power consumption (just 20W) on full load, low operating temperatures and you've got yourself one great HTPC card. I could have gone with this one but I really do feel the price could have been much subsidised, and this one actually concentrates on the HD market, not much on the Graphics area. You can run a few good graphics on this properly.

Tech Specs comparison next page

Specifications	Geforce 8500GT	GeForce 8600GT	Geforce 9500GT	ATI HD4550
Core Clock	450	540	550	600
Memory Clock (Mhz)	800	1400	1600	800
Stream Processors	16	32	32	80
Shader Clock(Mhz)	900	900	1400	600
Memory Bus(bits)	128	128	128	64
Bandwidth (GB/s)	12.8	22.4	25.6	12.8
Fabrication Process (nm)	80	80	65	55

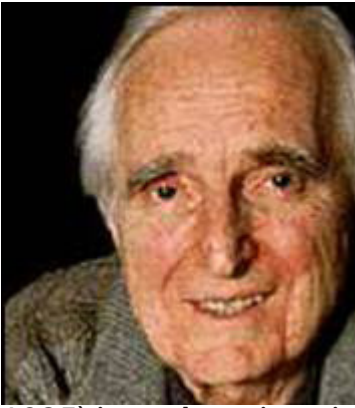
Quake 4 : 1280*1024 with No AA/AF



MEGA INVENTORS

THE MOUSE

By Dr. Douglas C. Engelbart



Dr. Douglas C. Engelbart (born January 30,

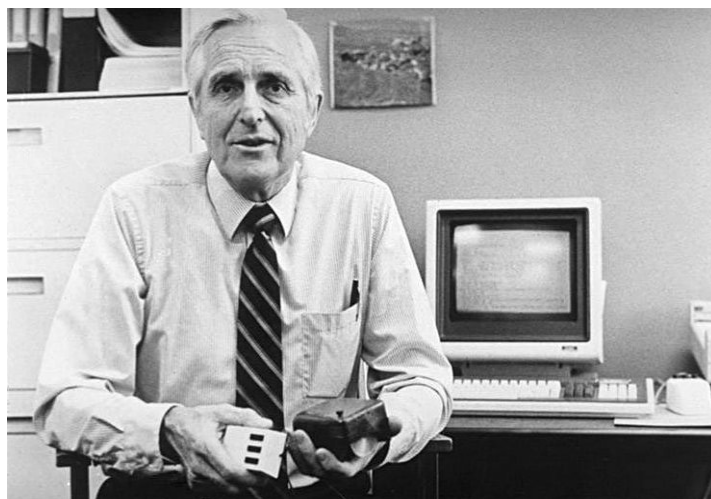
1925) is an American inventor and early computer pioneer. He is best known for inventing the computer mouse, as a pioneer of human-computer interaction whose team developed hypertext, networked computers, and precursors to GUIs; and as a committed and vocal proponent of the development and use of computers and networks to help cope with the world's increasingly urgent and complex problems.



His lab at SRI was responsible for more breakthrough innovation than possibly any other lab before or since. Engelbart had embedded in his lab a set of organizing principles, which he termed his "bootstrapping strategy", which he specifically designed to bootstrap and accelerate the rate of innovation achievable.

ARPANET

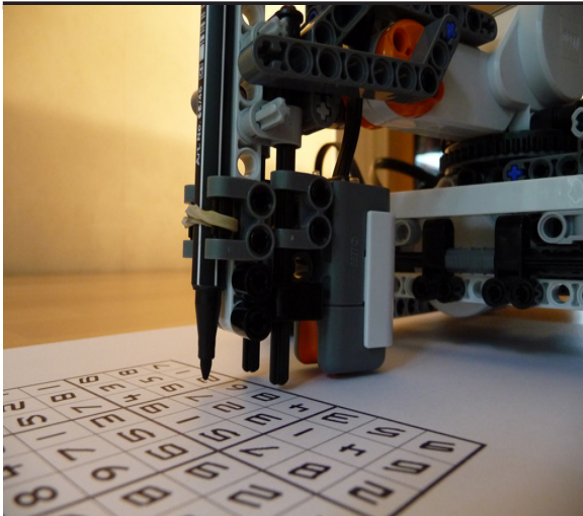
On October 29, 1969, the world's first electronic computer network, the ARPANET, was established between nodes at Leonard Kleinrock's lab at UCLA and Engelbart's lab at SRI. Interface Message Processors at both sites served as the backbone of the first Internet.



ARC soon became the first Network Information Center and thus managed the directory for connections among all ARPANET nodes. ARC also published a large percentage of the early Request For Comments, an ongoing series of publications that document the evolution of ARPANET/Internet.

Partial Source : Wikipedia

MVDIT ROBO-CLUB



NXT SUDOKU SOLVER

By: Youtube user: TITLED-TWISTER

Rating: ★★★★★

Vidit Bhargava

THE BEST TILL DATE I HAVE EVER SEEN. This little robot solves a sudoku puzzle all by itself. It scans the sudoku puzzle using a light sensor. It calculates the solution to the puzzle and then writes the digits.

A word from the Creator himself

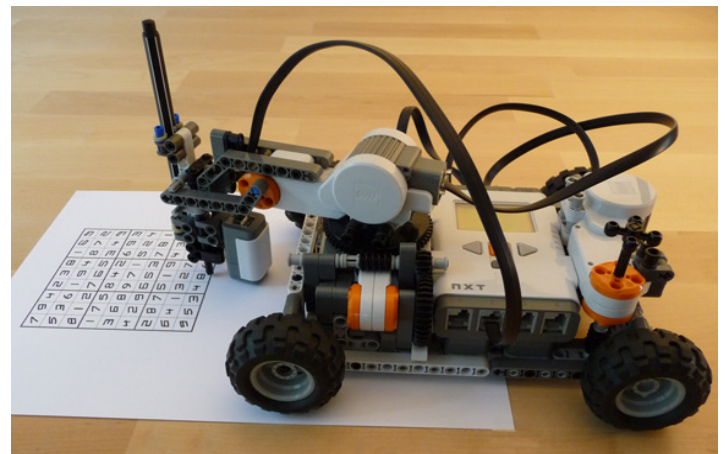
Scanning: It first performs a quick scan to determine which cells are empty. An image of the digit is created by scanning the cell line by line moving the robot forward a tiny bit for every line.

Thresholding

The scanned image is very noisy and blurred.

The threshold value is calculated by applying an automatic threshold algorithm (The Otsu Method).

Segmentation : The binary image may have more than one segment. It may have pixels not belonging to the digit. The center segment is found and other segments are deleted.



Watch it in Action

www.mvdittechbook.co.nr > MVDIT ROBO CLUB

Solving the Sudoku

Solving a sudoku puzzle is a quite simple task for a computer. But since the Mindstorms processor is rather slow, it took some care to optimize it.

Building Instructions on the Website
Partial Source : Youtube