

Who let the dogs out?...Two teams consisting of up to four "robopups" with all sensors on-board, play soccer on a field. No human intervention is allowed.

Killer Apple iPods

Apple's iPods can cause pacemakers to malfunction by interfering with the electromagnetic equipment monitoring the heart, according to a study presented by a 17-year-old high school student to a meeting of heart specialists on Thursday.

The study tested the effect of the portable music devices on 100 patients, whose mean age was 77, outfitted with pacemakers. Electrical interference was detected half of the time when the iPod was held just 2 inches from the patient's chest for 5 to 10

seconds. The study did not examine any portable music devices other than iPods, made by Apple Inc.

Jay Thaker, lead author of the study and a student at Okemos High School in Okemos, Michigan, concluded that iPod interference can lead physicians to misdiagnose actual heart function.

Mr Thaker said he is interested in doing a similar study about how implantable cardioverter defibrillators, known as ICDs, are affected by iPods.

Reuters

ET Promotion

An environmental faxing alternative

While global warming and faxing are not topics that are normally discussed together, tech company UTBox is merging the two subjects in a strategy for environmental and business success.

Corporate responsibility and economic sustainability go hand-in-hand in many respects, so merging information technology with a green initiative was natural for the Australian-owned company, who made their debut at Cebit in Sydney last week.

UTBox provides Internet-based services, including sending faxes and SMS by e-mail, aiming to minimise paper waste and environmental impact.

Managing Director Rhett Jones describes the service to be similar to buying electricity from a green power company – although the product can be the same, the price and company philosophy vary.

UTBox donates one cent per fax to the Greening Australia organisation, which was set up to address environmental issues such as salinity, declining water quality, soil degradation, climate change and biodiversity loss through a blend of practical experience, science and community engagement.

In an interview with *The Epoch Times*, Mr Jones was confident about the progress of the company since he acquired the business, which has doubled its revenue in eight months.

Carbon Dioxide emissions for faxes:

- 1 fax = running ceiling fan for 1 hour (100g of CO₂)
- 5 faxes = running pool filter for 1 hour (500g)
- 10 faxes = running electric radiator for 1 hour (1kg)
- 15 faxes = running lawn mower for 1/2 hour (1.5kg)
- 25 faxes = 5 minutes hot shower (2.5kg)

Utbox has created a "win-win situation," he says.

"With an environmental conscience, the energy behind the business is making it fun. It isn't exciting when it comes to discussions about faxing, but with the green approach it makes a difference," says Mr Jones.

Along with his commitment to the environment, Mr Jones is dedicating resources to another passion – rural Australia – where a separate fax line can take up to a month to install.

With an eye on the long-term, UTBox is planting its seeds for the future and setting a good example of social and corporate responsibility.

FREE TRIAL of the Utbox service valued at \$15.00 for *The Epoch Times* readers. E-mail your name, address and telephone details to promotions@theepochtimes.com.au.

Australia to defend RoboCup 2007

They say you can't teach an old dog new tricks, but innovation is the key when it comes to Australia's bid to defend its world cup of canine robot soccer.

While robotic dogs have been around for a few decades now – at least conceptually – recent scientific advances have helped make events such as the RoboCup soccer tournament a serious forum for artificial intelligence.

Australia's Newcastle University is looking to defend its title in the four-legged division of the RoboCup in Atlanta in July.

In the four-on-four competition, puppy-sized robots play each other with only their masters' programming to guide them.

Michael Quinlan, who leads the Newcastle team named NUBots, will head to his sixth world championship this year, having led Newcastle's victorious RoboCup campaign against the University of

NSW in Germany last year.

The team recently returned from Hanover where they were beaten by a German team in a warm-up event to the main tournament.

"Last year, our main secret was ball control – we had much better skills with the ball than pretty much every other team," Dr Quinlan said.

Teams in the tournament are all given similar units to work with and program the robots' artificial intelligence systems to improve skills such as response time and ball control.

The robots operate autonomously, with no assistance from their owners either on the field or remotely.

Using optical recognition to locate and move towards the ball, engineers can only sit and watch in frustration as their creations attempt to make sense of their state of play.



A humanoid robot of the child-size league poses at the 2006 RoboCup. Getty Images

Four-legged soccer is just one of the competitions in the RoboCup carnival.

Other fields in the tournament include football for larger humanoid robots, search and rescue

challenges, dance simulation and domestic assistance robots.

NUBots is the only Australian team competing in the four-legged league this year.

But Dr Quinlan says the current

German teams have been working hard to match NUBots' play while the Australians have been pushing up against the limits of current technology.

"Each year, you're getting on 10 goals better than you were the year before – our team in 2006 would have beat our 2005 team around the 10-nil mark.

"I think this year will probably not be that big an improvement because I think we're starting to reach the upper limit of what each robot can do."

The RoboCup tournament organisers say they hope to have a team of humanoid robots that can beat a FIFA World Cup winning team by 2050.

The tournament is aiming to build on IBM's 1997 effort, in which it defeated Russian chess grandmaster Garry Kasparov with its supercomputer Deep Blue. AAP

Tags to catch exam cheat

UK students taking GCSE and A-level examinations this month were warned that they would be caught if they bought stolen papers.

Exam board Edexcel said they had put shop-style security tags into the packages of papers sent to schools and colleges to trace any that went missing.

Examiners would also be able to spot unexpectedly good performances by individual students or groups of candidates by comparing their results with their achieve-

ments in other subjects and over previous years.

The exam board said there were 70 reports of security breaches last summer, including the theft of an A-level statistics paper, out of the 620,000 packages of papers it despatched.

It said 90 per cent of candidate scripts would be scanned into computers, enabling senior examiners quickly to check the work of any students whose submissions were suspect.

Reuters

Precedent for green music events

David Rubacek

Speaking at the Live Earth Australia launch on May 8, Dr Michael Molitor, an environmental advisor, announced groundbreaking standards to make the music industry "green".

Live Earth is a global series of music concerts across six continents that will be held on July 7 to combat climate change.

It is tipped to be the biggest music event ever and will reach a potential audience of two billion through radio, TV and the Internet.

As a precedent for all large events, Live Earth will set new environmental standards in what is hoped to become a "green revolution" by organisers.

Dr Molitor, a former global leader of the Climate Change Services team at PricewaterhouseCoopers, is part of the Live Earth think-tank, along with experts in the management of solid wastes, sustainable transport and carbon footprints.

The "green guidelines" that will be published and widely distributed include 50 specific tasks for event organisers.

Environmental impacts for the events will be "identified, measured, reduced, reported and audited". "We will be transparent in all that we do and we will have third

party verification of all our green activities," Dr Molitor said.

On the green requirements agenda is the commitment by all corporate sponsors for tackling climate change.

At the launch it was announced that Origin Energy is a key sponsor that will power the event from environmentally-friendly sources.

"Origin has agreed to provide all support to make Live Earth Australia a carbon-neutral event," Dr Molitor said.

Transport has been identified as a large contributor to environmental impacts of large events.

As a result, Live Earth Australia ticket holders will be eligible to free travel on an integrated train-bus network to the concert venue.

Dr Molitor stated that the event has already had success in engaging large companies to become environmental leaders.

"Ticketek has agreed to print all Live Earth Australia tickets on post-consumer recycled paper; furthermore, they will make this a standard for all tickets printed for all events from now on," Dr Molitor said.

As part of the legacy programme, proceeds from all the concerts will go towards investment into "large-scale high-profile carbon reduction" projects.

Related article page 12

Discovery King Herod's tomb found

The Epoch Times • Israel

The long search for King Herod's tomb has ended with the exposure of the remains of his grave, sarcophagus and mausoleum on Mount Herodium's north-eastern slope, Professor Ehud Netzer of the Hebrew University of Jerusalem announced on May 8.

King Herod was the Roman-appointed king of Judea from 37 to 4BC who was renowned for his many monumental building projects, including the reconstruction of the Temple in Jerusalem, the palace at Masada, as well as the complex at Herodium, 15km south of Jerusalem.

Herodium is the most outstanding among King Herod's building projects. This is the only site that carries his name and the site where he chose to be buried and to memorialise himself – all with the integration of a huge, unique palace at the fringe of the desert, said Professor Netzer. Therefore, he said, the exposure of his tomb becomes the climax of this site's research.

The approach to the burial site – which has been described by the archaeologists involved as one of the most striking finds in Israel in recent years – was via a monumental flight of stairs (6.5m wide) leading to the hillside that was especially constructed for the funeral procession.

The excavations on the slope of the mountain, at whose top is the famed structure comprised of a palace, a fortress and a monument,

commenced in August 2006.

The expedition was conducted by Professor Netzer on behalf of the Institute of Archaeology of the Hebrew University of Jerusalem, together with Yaakov Kalman and Roi Porath, and with the participation of local Bedouins.

The location and unique nature of the findings, as well as the historical record, leave no doubt that this was Herod's burial site, said Professor Netzer.

The mausoleum itself was almost totally dismantled in ancient times. In its place remained only part of its well-built podium, or base, built of large white stone blocks in a manner and size only recently revealed at Herodium.

Among the many high-quality architectural remains spread among the ruins is a group of decorated urns that were used to store body ashes. Similar urns are to be found on the top of burial monuments in the Nabatean world. The urns had a triangular cover and were decorated on the sides.

Spread among the ruins are pieces of a large, unique sarcophagus around 2.5m long, made of a Jerusalemite reddish limestone and decorated by rosettes. The sarcophagus had a triangular cover, which was decorated on its sides. This is assumed to be the sarcophagus of Herod. Only very few similar sarcophagi are known in the country and they can be found only in elaborate tombs, such as a famous one at the King's Tomb on Selah a-Din Street in

East Jerusalem.

Although no inscriptions have been found yet at Herodium, neither on the sarcophagus nor in the building remains, these still might be found during the continuation of the dig.

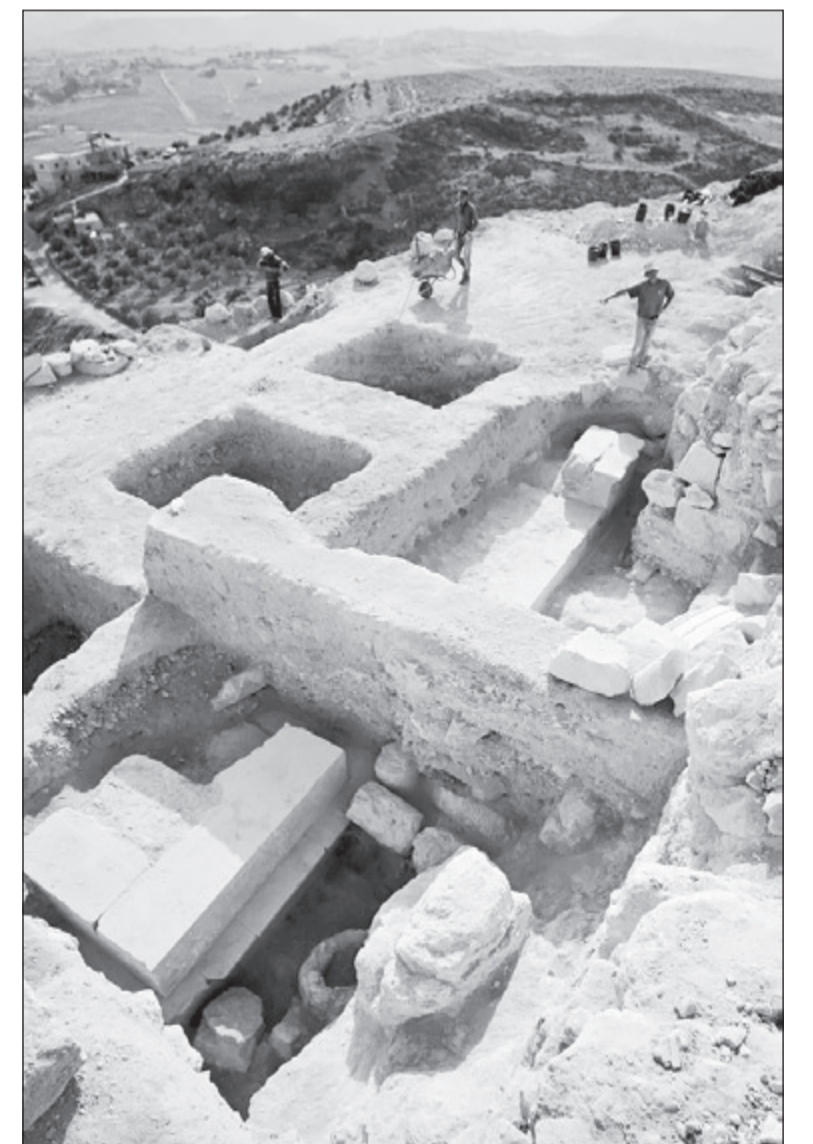
Worthy of note is the fact that the sarcophagus was broken into hundreds of pieces, no doubt deliberately. This activity, including the destruction of the monument, apparently took place in the years 66-72AD during the first Jewish revolt against the Romans when Jewish rebels took hold of the site, according to Josephus and the archaeological evidence.

The rebels were known for their hatred of Herod and all that he stood for as a "puppet ruler" for the Romans.

The search for Herod's tomb, which began 30 years ago, focused until the middle of 2006 at Lower Herodium in an area that was especially built for the funeral and burial of the king – the "Tomb Estate". In order to reveal the remains there from Herod's days, the expedition first exposed a large complex of Byzantine structures, including a church.

The Tomb Estate included two monumental buildings and a large ritual bath (mikveh) as well as the 350m long, 30m wide route that was prepared for the funeral. When no sign of the burial place itself was found within the Tomb Estate, the expedition started to search for it on the slope of the hill.

Although there seems to be no



An Archaeologist has uncovered what is believed to be King Herod's tomb and broken sarcophagus. Courtesy of Hebrew University of Jerusalem

doubt that the initial intention of the king was to be buried in the estate, it seems that in a later stage of his life he changed his mind and asked to be buried within the artificial cone that gives the hill of Herodium its current volcano-

shape. The current excavations benefited from donations of private individuals and the assistance of the Israel Exploration Society and the Israel Nature and Parks Authority.

Free Educational Seminars

21 June 2007

Commodity Broking Services specialises in offering online accounts to clients wishing to deal in the Foreign Exchange, Bullion, Futures, Commodities, CFDs and International/Domestic Equities markets all from the one account.

Learn how to trade the international equity market the easy way at our next free seminar on the 21st of June, 2007

Free trial download also available of the award-winning Falcon Trader software: enabling you to explore the world of trading through charting, trading, research and real-time market news.

25 years experience on the frontline of investment products.

www.commoditybroking.com.au

