

# GIZMO

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## TECHNOLOGY NEWS



**Biofuel is now being made from otherwise useless flora and plant waste, reports Mark Harris**

In recent months biofuels have earned a reputation blacker than the crude oil they are meant to be replacing. No sooner do we learn that rainforests from Indonesia to Brazil are being razed to farm "green" fuels for the West than intensive production of biofuels is blamed for the current crisis in world food prices. And apparently some biofuels create more potentially harmful ozone than petrol does.

Before we give up on alternative fuels and dive back into an ever-shallower pool of crude oil, though, let's spare a thought for a new batch of biofuels being cooked up in laboratories worldwide. They hold the promise of more efficient, cleaner energy sources that don't compete with forests or food crops for growing space. Airbus, the maker of the A380, the largest passenger aircraft in the world, announced last week that it expects these second-generation biofuels to make up (eventually) a third of all aviation fuel.

Getting new biofuels off the ground is taking some doing. Starchy and sugary crops such as wheat and sugar cane make good biofuels because they are easily converted to ethanol, while oily sunflower and palm plants can readily be made into biodiesel. It would make much more sense, however, to produce biofuels from weeds growing on land that can't be farmed, or from agricultural waste, old wood chips or even second-hand paper.

The world's biggest second-generation biofuel factory is due to open in Georgia, USA, next year. Range Fuels' Soperton plant is expected to produce 16m gallons of ethanol biofuel annually from logging waste and grasses. This may not sound a lot in global terms but it is the start of something much bigger: a 13 billion-gallon ocean of second-generation biofuels that the USA is aiming to produce by 2022.

Meanwhile, Warwick HRI, the horticultural research division of Warwick University, is doing its bit in Britain. It is working on ways to turn



# A tankful of weed juice

If you fill up with second-generation biofuel, you can be confident you're not causing a food shortage or deforestation

worthless material such as straw into valuable fuel right on the farm, using a combination of bacteria and fungi.

Guy Barker, the research leader, says, "If we could break down straw into a liquid form on the farm, it could then be shipped straight to a refinery, like crude oil. Any leftover material on the farm could be worked back into the ground to sustain future crops."

The Warwick process, which is still some way from commercial viability, will be slower than the enzyme system preferred by the Americans. "But do you want speed or do you want efficiency?"

Barker asks. "Transporting large amounts of waste biomass to factories becomes a real problem, and the cost is high."

While the new fuels do not threaten rainforests or food supplies, they are not without problems. Scientists at the Global Invasive Species Programme, an international group dedicated to monitoring and tackling invasive plants and animals introduced from one region to another, warned last week that countries importing plants for biofuels could also be importing a host of problems. It estimates that alien species cost the world economy £700 billion every year. It

instances plants such as the giant reed, Chinese silvergrass and the sawtooth oak as species that are being cultivated in Europe despite being highly invasive.

We have recently learnt that every environmental solution brings its own set of problems. Fair trade or transport miles? Fossil-fuel power stations or carbon-free nuclear ones? Genetic crop engineering or pesticides? Biofuels or food riots?

You can't win 'em all, so it's a matter of choosing the least worst option. Right now that looks like second-generation biofuels.

### CUT THE CORD

**Sennheiser MX-W1**  
£300 [www.sennheiser.co.uk](http://www.sennheiser.co.uk)  
01494 551 551

These wireless earphones aim to improve the experience of listening to your portable music player with no strings attached. Current Bluetooth wireless headphones compress your music (sacrificing sound quality) and often involve bulky headphones or having to dangle an annoying receiver around your neck.

The MX-W1s, though, use a new radio transmission system called Klear that avoids audio compression and requires a fraction of the power of Bluetooth, allowing the use of miniature receivers that fit inside the wireless, lightweight (10g) earbuds. Sennheiser says its hi-fi-quality stereo earphones will play for between three and four hours on a single charge.

However, unlike with Bluetooth, a technology built into some music-playing devices, such as mobile phones, you need to plug a separate, matchbox-sized transmitter into your player to make use of the Klear system. This compact unit attaches to your player's headphone socket. It has a range of about 30ft and can simultaneously share music with up to four sets of earbuds. In brief tests of an early model, it sounded better than many Bluetooth cans but not wired headphones at a fraction of the cost. The stiff price includes a pocket docking station for recharging while you're on the move. The MX-W1 should be arriving in UK shops within the next few weeks.



### UNREALITY TV

**FakeTV \$40 (£21)**  
[www.faketv.com](http://www.faketv.com)  
00 1 952 943 2378

One of the greatest deterrents to a prowling burglar is the flickering light of a television set. Enter, then, the FakeTV, a miniature gadget that uses an array of computer-controlled LED lights to simulate the rapidly changing glow of a flat-panel television. Placed near an upstairs window (or anywhere it cannot be directly seen), the FakeTV will activate automatically at dusk and give the impression that there's an insomniac in the house, killing time watching late-night movies until dawn breaks. The beauty of it is that it uses much less power than a real television — its power consumption of only 3W is less than that of many televisions in stand-by mode. There's no guarantee that thieves will be deterred, of course, and at the moment the gadget is available in the USA only, with a typical postage charge of £20.



### DIGITAL DOORMAN

**Manodo Sbox home automation system**  
From £520, plus £3 per month  
[www.manodo.se](http://www.manodo.se) 0046 31 712 5000

With its 8in touchscreen, this virtual doorkeeper from Sweden will let you see live traffic forecasts, bus timetables, messages from your neighbours — even an entry-phone video of anyone loitering outside your door. Wirelessly connected to your broadband internet connection and to various meters and sensors around your home (the full set costs an additional £280), it can also tell you how much electricity, gas and water you've been using. Homes using the Sbox to monitor energy consumption typically use 20% less electricity and 25% less water. The system, which requires professional installation, will be available in the UK later this summer.



# GAMES

★★★★★ KO ★★★★★ A-OK  
★★★ OK ★★ So-so ★ No-no



**Rock Band ★★★★★**  
Xbox 360; £50. Age 12+

The logical evolution from the axe-wielding of Guitar Hero III, last year's smash hit, is rocking out in your living room as an ensemble. Rock Band enables you and as many as three friends to hook up faux instruments and play along to 58 supplied tracks — or download extra tunes. In addition to pressing buttons on a plastic guitar

accessory in time with the music, Rock Band throws down the challenge of vocals and drums. Can you keep the bass-drum pedal pumping in time? The instruments (not supplied) are sold individually or as a "band in a box", comprising a guitar, a microphone and the drum kit for £130.

The gameplay is familiar: your band must play virtual gigs and perform well enough to tour the world. Rock Band is more serious than its predecessor, yet it plays well, looks great and you can customise the characters. The downsides are the rock-star kit prices, the cat's cradle of cabling, and a modest song list. Guitar Hero III is a better single-player game, but once four of you are jamming to the crescendo of Wanted, Dead or Alive, Rock Band takes gaming somewhere entirely new. Rock on. **Stuart Andrews**



**Haze ★★★★★**  
PS3; £50. Age 15+

This much-hyped action title is set in a near-future world in which wars are fought by corporations. You play an idealistic young sergeant battling insurgents in a South American country. Curiously, your character's senses and skills are both enhanced by taking a drug called Nectar. You soon begin to question your actions. Are

you with the good guys? Are you fighting the bad guys? What is the Nectar doing to your mind? It is an interesting and well told story, albeit rather preachy.

The visuals veer between patchy and excellent — often in a single level — and snippets of dialogue are repeated ad nauseam. Compared with rivals such as Call of Duty 4 and Half-Life 2: Episode Two, Haze feels old-fashioned, and it lacks the pace and drama that make those games so immersive.

It is saved by the co-operative campaign options, in which other real-world players can drop in and out of your story, plus the wit and ingenuity of later levels. That said, Haze is more of a Purple Heart than a purple patch for gaming — a big disappointment. **Stuart Andrews**



GETTING TO THE FINAL WAS SURPRISINGLY EASY.  
IT WAS ONLY WHEN WE GOT ON THE PITCH WE FOUND IT TOUGH.



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GO BEYOND

# DON'T PANIC

NIGEL POWELL ANSWERS YOUR TECH-RELATED QUERIES

**Q I've heard many web pages are now infected. How can I guard my computer?**  
Janet Simpson, Luton

**A** While they are still rare, there has been an increase in websites infected with viruses. Always keep your browser up to date with its latest version (this is free) and install good antivirus software such as AVG (the free basic version at [free.grisoft.com](http://free.grisoft.com) will normally suffice; the £30 version is even more secure).

And if you do ever find yourself on a website you were not expecting to see, shut down your browser without clicking on it.

**Q I have an old desktop PC that says "No signal" when linked to a monitor? What's wrong?**  
David Woolf, via e-mail

**A** Sounds as if your PC's video card has died or come loose. Turn off the computer, open the case and check the video card — the circuit board your monitor cable is attached to — is in its slot. If this doesn't work, you may need a new card. They cost from £25 ([tinyurl.com/45telf](http://tinyurl.com/45telf)), but check your PC's slot matches the new card.

**dontpanic@**  
[sundaytimes.co.uk](mailto:sundaytimes.co.uk)