JET PACK? WHERE'S MY

HOLLYWOOD HAS BEEN TEASING US WITH FUTURISTIC VISIONS SINCE THE 1960S. BUT IF THE FUTURE IS NOW, WHERE ARE OUR FLYING CARS, ROBOTS AND TIME MACHINES? **SHANE CONROY** FINDS OUT.

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> “NASA and the FAA are working to free up airspace for micro-light aircrafts. Americans could be flying to work in five to ten years. We may follow suit.”

New Zealander Glenn Martin must be hoping his Martin Jetpack will fly off the shelves.

Perhaps it was a result of the social revolution (or simply LSD), but the 1960s did strange and wonderful things to film and television makers. Science fiction burst out of novels and onto the screen as filmmakers threw off the shackles of the present and stroked their chins in ponderous wonderment of the future.

From classic children's animation to cheesy television programs and Oscar-winning films, we discovered futuristic worlds beyond our imagination and fell in love with the ease and excitement of our future lives. In 1962, *The Jetsons* promised us flying cars and affable robot maids. In 1965, *Lost in Space* gave us personal jet packs, and by 1968, Stanley Kubrick and his *2001: A Space Odyssey* teased us with a vision of life on the moon.

Eight years on from Kubrick's futuristic deadline, we're still doing our own tiresome housework, commuting on public transport and remain firmly stuck on planet Earth. Let's be honest, in the stark LED light of the 21st century, it's far from the efficient future we were promised. So what gives? Is Hollywood merely a bottomless pit of lies? And, if the future is now, where's my bloody jet pack?

WHERE'S MY... JET PACK?

OK, take a deep breath and calm your future-loving self down. Thanks to one enterprising Kiwi, your personal flying device is no longer a rhetorical question. Your jet pack is... drum roll please... now waiting for you – courtesy of a Christchurch backyard.

Glenn Martin, New Zealand inventor and managing director of Martin Aircraft Company, spent 27 years at work in his secret laboratory – aka garden shed – on the world's first practical jet pack, which uses petrol and supports a weight of 110 kilograms. After developing 11 prototypes, Martin finally released the Martin Jetpack in July last year.

It'll cost you a little over $150,000, and you will need to spend up to 10 days at Martin's Jetpack flight school before unleashing it. The machine uses a four cylinder, 2.0 litre petrol engine to drive a power fan system and has a range of almost 50 kilometres – equating to a flying time of about 30 minutes – and can hit speeds of up to 100km/h.

Classed as a microlight craft, its only limitation, in fact, is strict worldwide civil aviation regulations that currently restrict the craft to specified airspace zones. But, according to Martin, flying to your CBD workplace via jet pack could be as close as five years away. "In the US, NASA and the FAA [Federal Aviation Association] are working on a program called Highways in the Sky, which aims to reform civil aviation regulations and free up airspace for microlight aircrafts," he says. "Americans could be flying to work in only five to ten years. Who knows, we may follow suit shortly afterwards."

WHERE'S MY... FLYING CAR?

Joining you on the super-highway in the sky could very well be the flying car. Thanks to US-based company Moller International, you could be drag-racing in the sky George Jetson-style within a decade. The Skycar is the world's first vertical take-off and landing vehicle that will be personally affordable. It's small enough to be parked in a standard single-car garage, can burn almost any fuel from diesel to natural gas, and delivers a range of around 1200 kilometres. The Skycar uses its favourable weight-to-power ratio and lightweight rotary engines to achieve vertical lift much like a helicopter, but with up to three times the cruising speed.

However, the Skycar still remains in the development stage. "If funds were available, we could be on the market in less than eight years," Moller International general manager Bruce Calkins says. "In specific early-adopter markets it could be within three to four years.

"It will be like getting into a well-appointed automobile, except the cockpit and joystick will be like those of a sophisticated fighter plane or else a high-end jet aircraft."

WHERE'S MY... TIME MACHINE?

Even flying cars lose their gloss when talking about the ultimate futuristic vehicle – the time machine. H.G. Wells explored the concept of time travel in his famous 1895 novel, *The Time Machine*, and the 1960 film was honoured with an Oscar for Best Special Effects.

Since then, time machines have been a fixture in film and television sci-fi – from Dr Who's sophisticated TARDIS time machine, first seen in the 1960s, to Bill and Ted's time-travelling phone booth in 1989. But it isn't just fodder for fiction, says Craig Savage, associate director of the Department of Quantum Science at the Australian National ▷

TO INFINITY AND BEYOND

They may be making advances in time travel and living on the moon, but those pesky scientists have kept us hanging on when it comes to making these futuristic Hollywood gizmos a reality.

HOVERBOARD as seen in :: *Back to the Future* (1985)

Marty McFly is about as cool as the 1980s got – and that was mostly thanks to his hoverboard. Who wouldn't want to dive-bomb pedestrians, jump traffic jams and park on rooftops? And we'll take Michael J. Fox's handy auto-lacing Nikes any day.

THE NEUTRALISER as seen in :: *Men in Black* (1997)

Never fear foot-in-mouth syndrome again. One flash will erase all memory of your stupidity from the mind of your boss and will keep you looking as cool as Will Smith.

AUTOMATIC MAKE-UP APPLIER as seen in :: *The Fifth Element* (1997)

You'd be able to sleep in, still make it to work on time and look like Milla Jovovich with this nifty time-saving beauty gadget.

INFORMATION UPLOAD as seen in :: *The Matrix* (1999)

Just plug into this cool mainframe and become an instant expert. Keanu Reeves may have chosen to become a kung-fu master, but we'd leave him in the dojo, and learn to count cards instead.

REMOTE CONTROL as seen in :: *Click* (2006)

Fast forward or rewind people's actions. We'd have no problem muting out incessant nagging.

ILLUSTRATIONS :: CHRISTOPHER NELSON.

University. "Time travel into the future has been experimentally verified by flying an atomic clock around the world and comparing it with a twin clock left behind. The difference was about 300 nanoseconds [or 300 billionths of a second]," he says. "For humans to travel into the future, we'd need to travel at around 90 per cent of lightspeed for this to become feasible, and although it is technologically possible, it would be absurdly expensive.

"The proposals for time travel into the past all have some element that is speculative or unproven, but physicists are yet to prove it's impossible," he continues. "Even if it does turn out to be possible, it is likely to be immensely harder to put into practice. One reason is that the energy requirements for travelling into the past, such as those using wormholes [a theoretical passage through time and space], are immensely greater than for time travel into the future."

WHERE'S MY... ROBOT SERVANT?

Since *The Jetsons* and their beloved robotic maid Rosie flew into our hearts in the early 1960s, generations of housework-weary people have pined for an automated domestic life. Robot Rosie worked her metallic claws to the bare wires with little more than the occasional oil change, and promised us an intriguing future of household ease.

But we may soon be able to retire our scrubbing brushes in favour of a real-life robot maid recently developed in a project conducted by Toyota Motor Corporation and the University of Tokyo. The 'Home Assistant Robot' stands 155cm tall and weighs 130 kilograms. This Japanese electronic domestic goddess is capable of clearing a dining table, tidying rooms, sweeping floors and picking up dirty laundry on washing day.

The current prototype has five mini cameras and six laser sensors. It moves on two wheels, boasts two arms, hands with three fingers each, and a hip joint for bending to the floor. Its neck and head can be moved in three directions, the lower body in two, the arms in seven and the fingers in two.

The real technological leap, however, is the robot's ability to create a sophisticated 3D-model of its environment and operate within it, while learning from its mistakes. Engineers expect to have a market-ready model within the next seven years, and predictions point to a price of around $15,000.

WHERE'S MY... MOON HOUSE?

Director Stanley Kubrick famously broached the topic of moon colonisation in his Oscar-winning 1968 film, *2001: A Space Odyssey*, only one year before NASA actually planted the first man on the moon. Since then, the space race has slowly dropped down the global priority list and NASA has made little headway on a futuristic lunar city. Humans last landed on the moon way back in 1972.

But times they are a-changing. Two years ago, NASA unveiled plans to establish ▷

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Above, top: Expect the cockpit and joystick of the Skycar to be like those of a sophisticated fighter plane – or at least a high-end jet aircraft.

Above, bottom: Physicists have yet to prove time travel is impossible, so you might still get to travel to the future like Rod Taylor did in The Time Machine.

> “Eventually we may be able to teleport humans, although it may take a century or more.”

Above: One night at Poseidon Undersea Resort in Fiji will set you back $23,000.

a solar-powered habitation system on the moon's south pole by 2020 that could house astronauts for up to six months. Earth-based mock-ups are currently being tested, and NASA is reportedly planning an unmanned mission to the moon later this year to scout future landing sites, before robotic expeditions are sent to lay the foundations of the base. But word is that it will be used primarily as a stop-off point for future human missions to Mars, so there's no need to start saving for your piece of lunar real estate for at least another generation or two.

"To actually live in another atmosphere would be quite a test of technology as well as human physiology," says leading British space scientist, Sarah Dunkin. "We don't know what the long-term effects of living in a low-gravity environment would be."

WHERE'S MY... UNDERWATER CITY?

There's also a good deal of mystery to be found in the opposite direction for sci-fi buffs. *Voyage to the Bottom of the Sea* turned our attention to the ocean's depths in 1961, and 1969's cult hit, *Latitude Zero*, told of an underwater city complete with plentiful diamonds and citizens dressed in gold.

Discard the ostentatious wardrobe and you'll be able to visit a similar underwater paradise by mid-year. The $105 million Poseidon Undersea Resort in Fiji is a 24-room hotel – complete with library, fitness centre and restaurant – that will sit on the sea floor alongside a coral reef 12 metres below the surface. Accessible by elevator, a night under the sea will cost you $23,000 per person.

Also planned for later this year is the $798 million Hydropolis Undersea Resort in Dubai. The 260 hectare structure will be an underwater city boasting a 220-suite hotel, ballroom, shopping mall and its own missile defence system – all 18 metres under the sea.

WHERE'S MY... TELEPORTER?

Since *Star Trek*'s Captain Kirk first uttered his timeless request 'Beam me up Scotty' in 1966, the concept of teleportation has danced through our minds just like Mr Spock at Mardi Gras. But here's where it gets spacey. Mad-professor types are talking about teleportation as a serious possibility and have already conducted successful experiments. Referred to as quantum teleportation, scientists have teleported single atoms across half a metre – a key step in cracking the code for teleportation of inanimate objects.

But, according to David Darling, author of *Teleportation: The Impossible Leap* (John Wiley & Son, RRP $38.95), humans will have to wait much longer to make the trip."I think that we will eventually be able to teleport humans, although it may take a century or more," he says. "Imagine being able to instantaneously transport yourself anywhere in the world." Looks like our great-great-great-grandchildren have a lot to look forward to.