

2016 PANEL, SHOWCASE AND AWARDS CEREMONY PAX AUSTRALIA, MELBOURNE CONVENTION AND EXHIBITION CENTRE

AUSTRALIAN STEM



VIDEO GAME CHALLENGE

SCHEDULE

PANEL: FRIDAY 4 NOVEMBER 2016, 10.30-11.30AM, DROPBEAR THEATRE
Projects, Peers, Passion and Play: Game development as an exercise in
21st-century education

**SHOWCASE AND AWARD CEREMONY: SATURDAY 5 NOVEMBER 2016,
11.00AM-12.00PM, KOOKABURRA THEATRE**
Sensational Student Showcase and Awards

PANEL: FRIDAY 4 NOVEMBER

Projects, Peers, Passion and Play: Game development as an exercise in 21st-century education

Did you know that video game development has the potential to be a fantastic project-based learning exercise for students? Learn from our panel of experts as we explore the educational benefits of learning to build video games. Our team of educators and industry professionals will discuss the role game development can play in helping to develop skills in creativity, ingenuity, innovation, planning, collaboration and communication among Australian students, and explore the way designing and building games has the capacity to prepare school-aged learners for a 21st-century future.

PANEL HOST

Jude Alexander

Jude Alexander is a Research Fellow at the Australian Council for Educational Research, the founding partner of the Australian STEM Video Game Challenge. Jude worked as a scientist for 20 years in natural resource and emergency management, speaks publicly about women in science, technology, engineering and mathematics (STEM), and presents a regular radio broadcast about community issues.

PANELLISTS

Jennifer Scheurle

Jennifer Scheurle is a world-travelling game designer and public speaker who has worked on more than 10 released titles since she started working in the industry six years ago. Born and raised in Germany and with a background in visual arts, she has played a role in Europe's thriving indie game scene. She was named as one of the 100 most influential women in game development in 2016 by Australian MCV Pacific. Currently working for Sydney-based Flat Earth Games, Jennifer now creates for the game *Objects in Space*, a 2016 PAX Australia Indie Showcase winner, while also working on her own title called *Philosophy of 10*. A lead game design teacher at the Academy of Interactive Entertainment in Sydney, Jennifer has also created a wide range of course material as one of three members of the curriculum development team for the institute all over Australia.

Ross Symons

Ross Symons is a video game and entertainment software development pioneer with a professional history that stretches back nearly 40 years to the late 1970s when he first authored a number of internationally published books on programming. Ross has extensive work history with the majority of large global publishers and is a current licensee of Xbox One, PlayStation4, Nintendo and Steam. He is the founder and CEO of Big Ant Studios, currently holds the position of Vice President of the Game Developers Association of Australia and is its longest serving board member, and serves as a Director and Council member of Mentone Girls Grammar School.

Ingrid Staggard

Ingrid Staggard is the Head of Pedagogy in the LITEhouse (Library and Information Technology Education) Faculty at Christian College, Geelong, where she is involved in tracking and embedding the general capabilities and digital-technology curriculum using a cross-faculty team-teaching approach. She also collaborates with colleagues in designing cross-curricular, project-based, collaborative approaches to learning, including through game design. She has taught in state, Catholic and independent school systems since 1997.

SHOWCASE AND AWARD CEREMONY: SATURDAY 5 NOVEMBER

Sensational Student Showcase and Awards

Want to meet the game developers of the future? Through the Australian STEM Video Game Challenge, Australian school students are creating amazing games. Join us as the winners of this year's competition are officially announced. Hear from the winners themselves and learn from industry professionals, as they unpack what goes into making a great game and offer tips to inspire up-and-coming game developers in Australia.

SHOWCASE HOST

Steven 'Bajo' O'Donnell

Steven 'Bajo' O'Donnell is a video game critic and co-presenter of ABC TV's *Good Game* and the companion show, *Good Game Spawn Point*.

PANELLISTS

Kristy De Salas

Dr Kristy de Salas is a Senior Lecturer at the University of Tasmania and runs the Games Research Group. She is also a Producer at Tasmanian indie development company Giant Margarita, which is exhibiting *Party Golf* on the PAX expo floor.

Josh Caratelli

Josh Caratelli is the Director/Gameplay Programmer at the multi-award winning Double Mercury Entertainment. He began making his mark in the games industry at the early age of 15 when he achieved his first game credit through contract work with Big Ant Studios on *Rugby League Live 2*. Josh and his team entered the Australian STEM Video Game Challenge in 2014, winning both the 9-12 Group Advanced category and the PwC People's Choice awards with *Smog Game*. Double Mercury Entertainment and *Smog Game* have gone on to win the 2015 iAwards Secondary Category at both the Victorian and national level, with the game now available on the App Store.

Ben Buckton

Ben Buckton is a Game Designer for Invent the World, which is a holiday program provider operating in Melbourne. His passions are to bring gameful approaches to the education space, and to utilise games as learning platforms to teach social skills and digital curiosity. Ben also lives in Europe half of the year – to avoid the Victorian winter.

AUSTRALIAN STEM VIDEO GAME CHALLENGE PARTNERS

Founding partner:

Australian Council for Educational Research

Major partner:

Academy of Interactive Entertainment

Industry/innovation partners:

HP Australia

Big Ant Studios

Google

PAX Australia

Supporting partners:

The Victorian State Government: Creative Victoria

Swinburne University

University of Tasmania

University of Adelaide

Game Developers Association of Australia

Interactive Games and Entertainment Association

Lumi

Codeclub Australia

GameTruck Australia

Tech Camps for Kids

2016 AWARD WINNERS

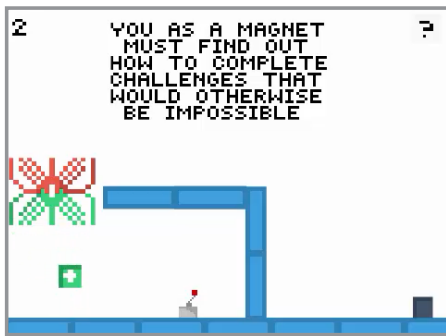
YEAR 5-8 SCRATCH

Winning students: Nyibango Costa and Shiris Kayastha, St Vincent's Primary School, ACT

GAME: MAGNETICS

The judges described *Magnetics*, a 2D platform game developed in Scratch, as, 'A great first attempt at a game.' Playing as a small magnetic cube, *Magnetics* uses the game environment to explore the physics and properties of magnetism, using the switching of positive and negative poles as a mechanism to complete challenges. Rewarded largely for its premise and concept, *Magnetics* has a lot of potential, and impressed the judges as the beginning of a very good crossover between platform and puzzle genres.

**URL: <https://vimeo.com/189093820>
password: Stem2016**

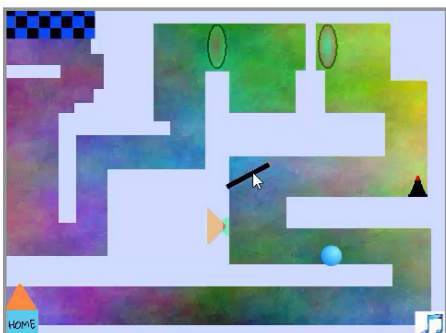


Winning student: Luke Aguilar, Tacking Point Public School, NSW

GAME: BOUNCE

A top-down maze-navigation style game, *Bounce* requires the player to navigate from one point to another, solving various challenges along the way. Created in Scratch, the judges were impressed with the use of physics, angles and trigonometry displayed in creating many of the obstacles that need to be negotiated by the player; and by the graduating complexity of the levels. *Bounce* incorporates a large amount of problem-solving into the gameplay, creating a challenging environment for the player, while the level design along with the soundtrack help to keep the player engaged until the end.

**URL: <https://vimeo.com/189093819>
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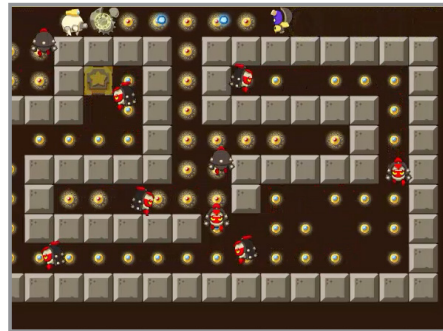
YEAR 5-8 GAMEMAKER/ GAMESTAR MECHANIC

Winning student: Aizaz Irfan, Renmark Primary School, SA

GAME: HARD GAMES TO PLAY

A Pac-Man style arcade game, *Hard Games to Play*, created in Gamestar Mechanic, sees the player navigate a series of mazes, while avoiding enemies and collecting tokens or 'dots'. Playing against the clock, the player must endeavour to complete each maze or room as quickly as possible, while achieving smaller tasks along the way. A familiar style of game, the judges described *Hard Games to Play* as a solid first attempt at a complete game that is enjoyable and challenging to play.

**URL: <https://vimeo.com/189093818>
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Winning students: Isabella Varda, Joseph Silveira and Dua Fatima, Glenroy West Primary School, VIC

GAME: BACK TO EARTH

Developed in Gamestar Mechanic, *Back to Earth* is a platform adventure game that chronicles the journey of a protagonist stranded on a foreign planet. Needing to get back to Earth, the player must navigate a series of levels, avoiding enemies and collecting resources in order to construct a way back home. *Back to Earth* uses custom backgrounds, created by the team, to give each level of the game a different setting, and includes puzzle/strategy elements involving keys and teleportation devices to keep the gameplay interesting throughout.

**URL: <https://vimeo.com/189093817>
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YEAR 5-8 OPEN (UNITY)

Winning students: Abhi Singh, Emmanuel Pranoto, Helen Yang and Cameron Ke, Churchlands Senior High School, WA

GAME: TIME IS OF THE ESSENCE

A cross between Super Mario and Flappy Bird, *Time is of the Essence* portrays the quest of the main character, Ace, as they are sent on a mission to thwart a threat to the world by a central antagonist known as Professor Periwinkle. Using familiar controls, players must navigate a variety of levels and obstacles, with an increasing degree of difficulty, to ultimately accomplish the goal. The addition of a countdown timer helps to move the game along and keep the player motivated, with a large amount of consideration to level design, gameplay and story helping keep players engaged and challenged from start to finish.

**URL: <https://vimeo.com/189093828>
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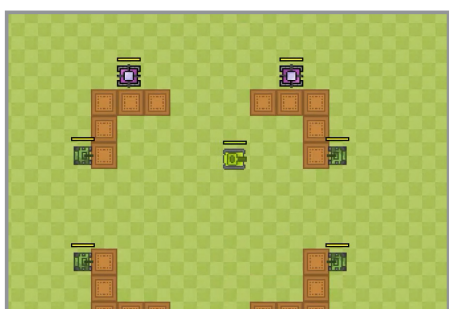
YEAR 5-8 OPEN (PYTHON)

Winning student: Maximus Lorents, Sydney Secondary College – Leichardt Campus, NSW

GAME: PIXELTANKS

Developed in Python, *PixelTanks* is a top-down arcade style game that places the player in control of a military tank. Using a 'last-one standing' style of gameplay with increasing levels of difficulty, the objective is to eliminate enemies using a combination of strategy and force in order to progress to the next stage. Adopting an 8-bit graphic style and accompanied by an original soundtrack, *PixelTanks* is fun to play, with an additional 'endless' mode helping to add to the game's longevity.

**URL: <https://vimeo.com/189093821>
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YEAR 9-12 GEMEMAKER/ GAMESTAR MECHANIC

Winning students: Tom Hubeek, Nathan Lambert, Lachlan Wiliamson and Jacob Djaelani, St Bede's College, VIC

GAME: SPECTRUM

Created using Gamemaker, *Spectrum* is a side-scrolling platform adventure game that sets the player on a quest to restore colour to the world. Rendered in greyscale, the game uses familiar controls, allowing the player to traverse a number of different levels in search of coloured crystals, dodging and leaping a number of different enemies along the way. Accompanied by a custom-made soundtrack, *Spectrum* is a fun adventure, and a great example of collaboration between a team to develop a cohesive and enjoyable game.

**URL: <https://vimeo.com/189093825>
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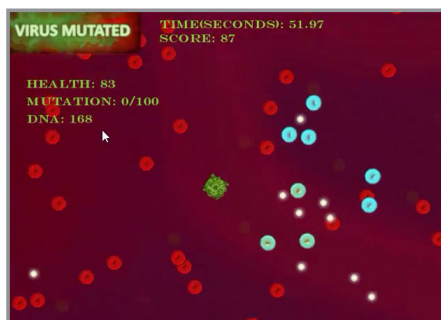


Winning student: Macus Ing, Trinity Christian School, ACT

GAME: SUPERBUG

Developed in Gamemaker, *Superbug* is a fun and addictive strategy game that pits the player against strengthening waves of enemies. Playing as the last trace of a virus inside the human body, fighting to survive against the combative practices of the immune system, players must collect DNA to strengthen themselves and hold out for as long as possible against an increasing array of enemies. As the player progresses, and waves of enemies grow stronger and more complex, players can 'mutate' themselves into a stronger form of virus, adding a decidedly strategic edge to the goal of survival.

**URL: <https://vimeo.com/189093826>
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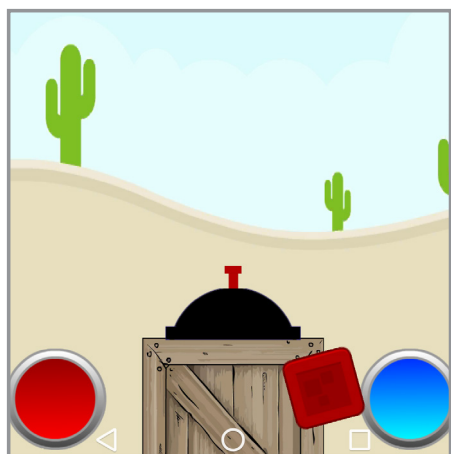
YEAR 9-12 UNITY

Winning student: Joseph Smith, Varsity College, QLD

GAME: COLOURSNIPER

Developed in Unity, *ColourSniper* is an addictive quick-draw style skeet shooting game. Equipped with a turret and two types of ammunition, the player must eliminate coloured projectiles as they fly on to the screen. Although the gameplay mechanics are quite simple, the inclusion of other objects, and the randomisation of the projectiles help to create an enjoyable game that makes use of a touch-screen environment to produce a fun, pocket-sized challenge.

**URL: <https://vimeo.com/189103195>
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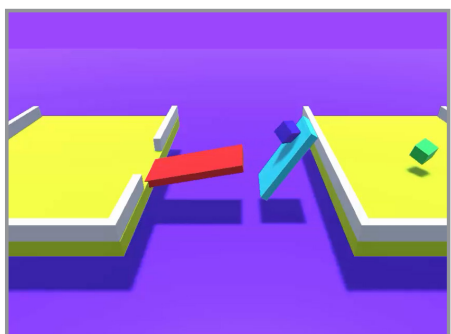


Winning students: Harry Waldon and Lachlan Weis, Ignatius Park College, QLD

GAME: TUMBLECUBE

Built with Unity, *TumbleCube* is a 3D puzzle game that encourages the player to use physics and inertia to solve a series of problems. Controlling a three-dimensional cube, the player must roll, tumble and direct the cube through a series of challenging courses. As the game progresses, the player must evade swinging hammers, navigate rotating platforms and use velocity to traverse large voids, resulting in a highly entertaining and challenging game that makes good use of Unity's 3D physics capabilities.

**URL: <https://vimeo.com/189093829>
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YEAR 9-12 OPEN (HAXEFLIXEL)

Winning students: Stuart Rich and Eli Narev, Sydney Grammar School, NSW

GAME: SUPER PROBE QUEST

A very well-documented game designed in HaxeFlixel, *Super Probe Quest* tells the story of an intern at NASA responsible for sending a probe to Pluto. Pulling the player into the role of the lead character, *Super Probe Quest* is structured as a series of mini-games that must be completed in order to obtain the parts needed to assemble and launch the probe. Varying between platformer, arcade and puzzle genres, the variety of games helps to carry the story along and makes for an innovative approach to delivering an in-game narrative.

**URL: <https://vimeo.com/189093827>
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YEAR 9-12 OPEN (RPG MAKER)

Winning students: Aaron Hamilton-Gold, Celeste Oliffe-Gold and Tyler Whelan, Dulwich High School of Visual Arts and Design, NSW

GAME: MOLE'D

Described by the team as 'a contemporary take on classic RPGs', *Mole'd* was created in RPG Maker using a combination of Ruby and Javascript programming languages. Featuring original artwork and sprites, *Mole'd* sees the player take control of Maria, an engineer on a quest to save a race known as the Mole People. Making good use of a game's ability to tell a story, *Mole'd* plays like a classic role-playing game, as Maria battles, sneaks and speaks her way through the adventure. Underpinned by a table-based battle mechanic that was developed by the team, *Mole'd* combines a detailed storyline with adventure and strategy to create an engrossing gameplay experience for the player.

**URL: <https://vimeo.com/189093822>
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