# 2022 APRIL SCHOOL HOLIDAYS YOUTH TECHNOLOGY CAMP



A fun and exciting new program these school holidays!

DAY1

DAY2

# Measuring water quality to understand the human impact

- Students explore how fertilisers and other solids that dissolve in water can impact water quality.
- Students build an analog EC sensor to examine the electrical conductivity of a range of materials.
- Students are placed in the role of field scientists collecting data using a DIY electrical conductivity sensor.

# **Robotics and Coding Projects**

- Using an AI program students are introduced to building their own Machine Learning models
- Using Tinker Cad and Python students chose from a variety of Coding Projects. Absolute Beginner to Experienced levels.











# PARENT INFORMATION

We have 2 fun days planned for your children. The main aim of our camp is to encourage children to increase their confidence and inspire them to pursue STEM field subjects and careers in the future. Using practical applications, fun games and challenges we will explore several areas of STEM.

### WHAT TO BRING

- Food for morning tea, lunch and afternoon tea.
- Well stocked pencil case
- Own laptop, (if you do not have one, please let us know in an email)
- DOWNLOAD ARDUINO SOFTWARE ONTO your laptop
- Free wifi can be accessed through Robina Library

# REGISTRATION AND PICKUP

- Parents to drop their children off at the venue.
- Please notify our facilitators if your children have special requirements
- Parents MUST sign the children in and out of the room.

## CHILDREN WITH SEVERE ALLERGIES

STEAM POWERED KIDS staff are unable to dispense medication, except in the case of an emergency. If your child is anaphylactic and has had an EpiPen prescribed, an in-date EpiPen must be brought to the program. We are unable to admit a child who comes without this medication.



<sup>\*\*</sup>For groups activities children will assemble into their appropriate age groups and abilities.

<sup>\*\*</sup>STEM is an acronym for Science, Technology, Engineering and Mathematics



# PARENT INFORMATION

# **FACILITATORS**

# Nirasha Welikala, BE.Eng (Hons), MEM

Nirasha has over 17 years' experience in various Industrial Engineering and technology companies, such as IBM, Tyco, Dyno Nobel, Lactalis and Schneider Electric. She has a degree in Electrical and Electronics Engineering and a Masters, in Engineering Management. She also has a certificate IV in training and assessment. Her expertise is in, process improvement methodologies, industrial engineering, manufacturing, electronics and training. She has designed and developed several training programs for adults and children.

# Sandra Murphy, Grad Dip Ed

Sandra Murphy studied at Sydney University and the University of Western Sydney to receive her Education degree to teach in Computing Studies, Information Technology, TAS (woodwork, Metal, textiles work and (3D printing in 2010)). She has taught VET certificates in Information Technology and IDMT (Digital Media) and has her Certificate IV in Training and Assessment. She has taught in NSW and QLD both private and public school systems. Ms Murphy has been teaching Digital technology and STEM subjects for the last 15 years. She has taught coding and robotics and is interesting in developing gaming design and development. She is a specialist teacher in the Education sector.

### Eric Tram. BE Mech (Hons)

Eric has a Bachelor of Engineering with Honours in Mechanical have been employed in a few engineering businesses. He also has experience in the media industry providing photography & videography for more of the commercial field. Eric I also provides marketing consultations as well and graphic design.

# Heather Collins, Grad Education

Heather has recently moved back from the U.S. where she was a qualified teacher and STEM specialist at a primary school in Denver, Colorado for five years. She enjoyed teaching her students about the Engineering Design Process, coding, green screens, and team-building through problem-solving and design. She is currently enrolled in the Masters of Primary Education at Griffith University so she can be qualified to teach in Queensland. Before teaching in the traditional education setting, Heather taught in the outdoor education setting - backpacking, kayaking, ropes courses, rock-climbing, etc. Her hope is to facilitate growth and confidence in students through adventure, collaborative work, and leadership opportunities. She's excited about providing exposure to STEM topics and activities with STEAM Powered Kids.

