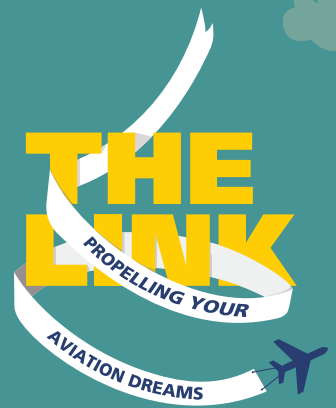


Entry Guidelines

The LINK STEM Innovation Challenge



ABOUT THE STEM CHALLENGE

The Link STEM Innovation Challenge hosted by Airlink is for tenth grade scholars who perform excellently in pure mathematics & physical science. Teams made up of 4 grade 10 scholars are tasked to design and build an innovative solution model for a problem in their community using processes learnt in their STEM classrooms. The challenge will be hosted at **Wonderboom National Airport on 9th June 2017**.

DESIGN CHALLENGE

How can we use STEM to provide solutions for our daily trials?

DESIGN BRIEF

We want you to identify a problem in your community. It can be related to energy, waste, transportation, vegetation, health, energy, communication, education, sanitation etc. Now imagine a creative idea on how to solve this problem and design the solution using Science, Technology, Engineering and/or Mathematics. Explain why it's important that this problem be solved. Models submitted should address the design challenge and be accompanied by a presentation on the design.

- Material used should not cost more than **R500.00**
- Registration Deadline: **26 May 2017**
- The Challenge is scheduled for **9 June 2017** and will run from **8:00am**

PROJECT SCOPE

There is a national crisis in education, such that Airlink struggles with hiring and retaining employees with scarce and critical skills, this situation is exacerbated by the considerable barriers to learning such as a lack of facilities and resource. Airlink believes that if scholars are exposed to aviation careers at a young age an interest which will lead to knowledge searching will develop, regardless of circumstances.

PROJECT APPROACH

- Challenge entrance will be limited to 20 teams.
- There is no competition entrance fee.
- Teams will have to source their own Model materials.
- The deadline to submit a report on the solution and an entry form is 4 weeks prior to the event.
- Teams will present the solution on activation day in their area.
- The model must be portable.
- Teams must participate in the Innovation Challenge Day Obstacle Course.
- Finalists will have to attend EAA Young Eagles & 'THE LINK' Career day.

ELIGIBILITY

- The challenge is open to teams of scholars in grade 10
- 4 members per team
- 50% female per team
- Must be from public schools
- All entrants to this challenge must be R.S.A. Citizens
- Must have enrolled for Pure Mathematics and Physical Science
- Must be born in 2001 or 2002

If the team/one member of the team does not meet any of the above, or cannot prove any of the above, the entire team will be disqualified.

PARTICIPANT LOGISTICS

Each grade 10 scholar must meet the Eligibility requirements



Each team must make sure they meet the application deadlines



Each team must ensure they are on time for the challenge day



Each participating scholar and guardian must sign release of liability and photo release forms



Transport and Lunch will be arranged for the selected teams



Parental approval is required for high school students to participate



EDUCATOR

It is recommended that each high school team has a teacher or staff member as the school coordinator for contact between The Link, district & participating team. They may also provide guidance to the team, manage timelines and expectations. The coordinators will be responsible for making sure their team is eligible to enter, meets the deadlines, understand the design challenge and brief and that a project's scope is manageable under the given timeframe.

CONSIDERATIONS

- Who is your design for?
- How will it be used?
- What STEM processes did you use? How might it be maintained over time?
- How will you measure success?
- How is it sustainable?
- What would it cost?
- How will your design inspire scholars to engage in STEM?

Interested schools should send queries to
TheLink@adrenalineshow.co.za or TheLink@flyairlink.com

JUDGING CRITERIA

- Each team is allocated a maximum of 50 points
- **The big idea:** Here's where your team demonstrates the application of design thinking
- **Fulfilling the brief:** Does your model address the design challenge
- **Inventiveness:** Have you found a unique solution to the challenge?
- **Look and feel:** Was it beautifully crafted? Does it engage the senses?
- **Design to Reality:** Do you have a viable solution? Will the idea work in reality?
- **Creativity:** Does the design demonstrate innovation. Is it genius?
- **Presentation:** How will you demonstrate the problem and get other people excited about said solution?
- **Teamwork = Dreamwork:** Show how teammates equally contributed to the conceptualisation, design and production of the big idea.
- **Technology focus:** What engineering went into the conceptualisation and production of the big idea?
- **Impact:** How great of an impact will your device have on a population or an individual's quality of life?

Tips & Tricks



- Explain how your idea is possible and why it will work – you can even include a diagram if that helps.
- Describe who's involved in making your solution a reality.
- Would different experts, businesses, governments or technologies need to work together to make your solution happen?
- Describe who this solution will benefit (this can include people, businesses, animals, or even particular groups (the elderly, students, families etc).
- Tell us about the research you did. Reference the sources you used during your research, and any scientific theories that support your idea

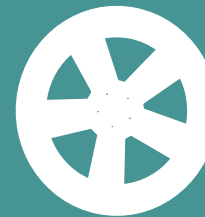
IDEAS



Food security



Constructing a rocket



Apps for transportation



Water purification



Windmill for energy production
Energy preservation



Architecture

SUBMISSION DETAILS

Please choose one of the following reporting mechanisms describing your solution, how it answers the brief/meets the challenge, user experience with your design, what you learnt through the design experience and what your inspiration was.



A 3 minute video clip



A PowerPoint presentation
(10 Slides max & not larger than 5mb)



A storyboard



A typed descriptive statement
(3 pages max & not larger than 5mb)

To enter the competition, you must submit a completed entry form to TheLink@adrenalineshow.co.za or TheLink@flyairlink.com and visit www.theadrenalineshow.co.za or www.flyairlink.com

The deadline for all entries is 26 May 2017

IMPORTANT DATES

Closing Day: 26 May 2017 / **Report on Model:** 26 May 2017 / **Event Day:** 9 June 2017

ENTRY FORM

The LINK STEM Innovation Challenge

Name of School:

Postal Address:

..... Postal Code:

City/Town/Village:

Street Address:

..... Postal Code:

School Email:

School Tel: () School Fax: ()

Educator: Tel:

Educator Email:

Please turn over to fill in your team's details

Drop your entry form at:

Airlink Concierge, Wonderboom National Airport
Lintveld Road, Wonderboom, Pretoria.



Team Name:.....

MEMBER ONE

Team Details

Surname	First Name	Initials	D.O.B	Gender	Race

MEMBER TWO

Team Details

Surname	First Name	Initials	D.O.B	Gender	Race

MEMBER THREE

Team Details

Surname	First Name	Initials	D.O.B	Gender	Race

MEMBER FOUR

Team Details

Surname	First Name	Initials	D.O.B	Gender	Race

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