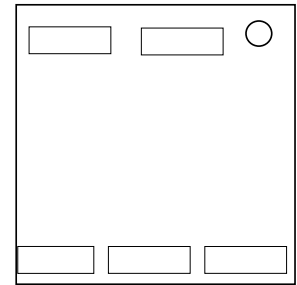# On the Subject of The Alteran Trail

It's 2041, and apparently, whatever your math teacher taught you, will save your life? I don't get it, even if you are on another planet.

- It's the year 2041, and you need to deliver supplies to base in your jeep.
- The journey to base will take multiple days, each day will consist of an action, regeneration, and event phase.
- On Day 1, you start with 100 health (HP), 100 power (mAH), 100 food (kg) and 0 distance (km).
- Base is 1000km away, get to at least this distance by the start of a new day and the journey will be over.
- Lose all health during the journey, and you will die. Press the retry button once this happens to restart the journey from the beginning.

Phases

- <u>Action</u> – During this phase at least 1 button will appear. Each button performs a different action:

    - <u>Fast</u> – This button will appear if you have at least 35 mAH. When pressed, you will travel 100km.
    - <u>Normal</u> – This button will appear if you have at least 15 mAH. When pressed, you will travel 50km.
    - <u>Slow</u> – This button will appear if you have at least 10 mAH. When pressed, you will travel 25km.
    - <u>Rest</u> – This button will appear if you have less than 100 mAH. When pressed, the jeep's battery charging station will open. To charge the battery by 30 mAH, input the correct answer to a simple math equation, then press the "Sub" button. Answer incorrectly and a strike will be given. If you make a mistake inputting your answer, press the "Clr" button to clear your input.
    - <u>Heal</u> – This button will appear if you have less than 100 health. When pressed, you will heal back up to 100 health. Note that this can only be used **once** on your journey.

- <u>Regeneration</u> – As long as you have less than 100 health, 2 kg of food will be consumed for 1 health up to 5 times.
- <u>Event</u> – An event will occur that may impact you or temporarily change the environment for the next day.

On the Subject of The Alteran Trail's Events

Events only those found on the planet of Altera that would kill someone on Earth.

- Here is the list regarding the twelve events and what they do.
- Cloudy – The sun will go dark, and 15 mAH less will be given to the battery if you choose to charge during this event.
- Sunny – The sun will go bright, and 10 mAH more will be given to the battery if you choose to charge during this event.
- Alteran Flu – A disease will bring plague across Altera, dealing 10 damage.
- Battery Explosion – Your battery will lose power all of the sudden, exactly 25 mAH will be removed.
- Food Cache – A food cache will appear around your location, supplying 20kg of food.
- Food Locker Breach – Some of your food left the locker. You lost 25kg of food.
- Sandstorm – A sandstorm covers Altera and deals 15 damage.
- Meteor Shower – Meteors land on Altera. Meteors will make a booming sound, and deals 2 damage per meteor and 2 mAH will be lost per meteor. Only five meteors will land.
- Alteran Wolf – A vicious delicacy will cover your bird's eye view of Altera. The wolf deals 15 damage, but you gain 10kg of food.
- Acromantula – A vicious beast of what you call a spider will cover your bird's eye view of Altera and will bite you. You lose health overtime, 15 health total.
- Bandits – Alteran Bandits starts to shoot at your jeep. Each bullet they shoot will deal 1 damage, but they shoot a total of 15 times.
- Normal – Nothing special happens. Nothing bad, but nothing good.

On the Subject of Charging the Battery

Quick, how do you calculate the resistance of a lithium car battery?.

- Here is the list of possible equations and how to solve them. (Examples are in parenthesis.)
- One-Step – Simple equations that uses one of the four basic operators to solve. (Example: 3x = 6. Divide Both sides by 3. x = 2)
- Two-Step – Simple equations that uses two of the four basic operators to solve. (Example: 3x + 8 = 20. Subtract both sides by 8. 3x = 12. Divide both sides by 3. x = 2)
- nth Power – Equations that uses nth root to solve. (Example: x to the 3rd power = 64. Take the 3rd root of both sides. x = 4)
- nth Root – Equations that uses nth power to solve. (Example: x to the 3rd root = 4. Take the 3rd power of both sides. x = 64)
- Exponential – Equations that uses log of the coefficient to solve. (Example: 3 to the x power = 81. Make this a logarithmic equation. log of 81 base 3 = x. Take the log(81) and divide by the log(3). x = 4)
- Logarithmic – Equations that deals with logarithms. (Example: log of 64 base 8 = x. Take the log(64) and divide by the log(8). x = 2)