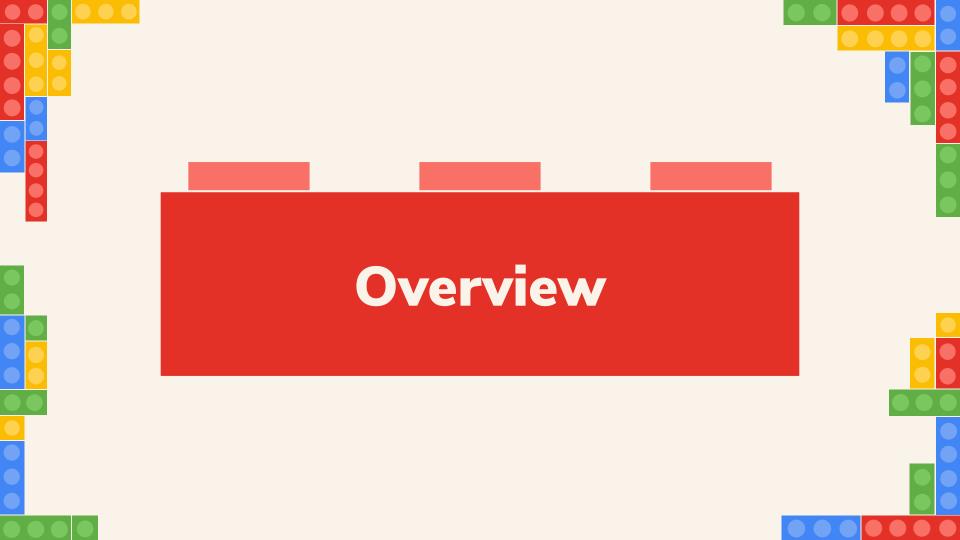


CHAN, Hiu Yau (Hilda)
CHOI, You Jin
HO, Wing Tung (Sammi)
KIM, Tae Eun (Chiara)
LAI, Kam Wai (Kelly)
WONG, Hang Ho (Henry)



#### **Overview**

The purpose of the board game is to educate children on nutrition, specific diseases prevalent in Sri Lanka, hygiene and water issues, and smoking/drug/alcohol abuse problems.

The children will be assessed with a follow program (e.g. including assessments, challenges, and questionnaire) to see if the board game has helped in changing their behaviours in real life.

#### **Aim**

I-KANDO is a board game targeting children of ages of 11-13 in TEA Plantation Estate (Kandy), where the people in the community lack understanding of health. By 28th May 2021, we will design a board game that will educate the children on nutrition, alcohol/drug/smoking abuse, and hygiene problems. We aim to change their behaviours and test their knowledge through a 7-week challenge, which will be assessed by the TEA leaders.

#### **Users**

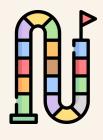


**Target Users**: children aged 11-13



Number of Users: Each team consists of 2-3 people (min. 2 teams, max. 4 teams)

#### **Length of the Program**



Board game- around 1 hour



Follow-up (7-week challenge)- 7 weeks

#### Improvement on Health & Well-Being



Increase solid knowledge through game



Increase **practical knowledge** through experiments and the 7-week challenge



**Teamwork** 

# **Meet the Needs of the Community**

#### Problems we want to tackle:

- Lack nutrition knowledge
- Disease
- Water and hygiene
- Drug and alcohol
- → quiz cards having all categories

#### Instructions

- 1. Each team consists of 2-3 people.
- 2. Each team puts their token on the place that says "START". The number represents the "nutrition level" of the player, meaning "50" would be the healthiest.
- 3. Roll the dice, and move the token forward the number of spaces shown on the dice.
- 4. If the token lands on the ladder, either move up or down.
- 5. If landed on the "Quiz" cards, "Action" cards, or "Truth or Dare" cards, do accordingly.
  - Quiz Card- If the token land on the specific icon, solve the question. If the answer is wrong, the player has to move one space backward.
  - Action Card- The player moves according to the instructions stated on the card.
  - Truth or Dare- If the player chooses "truth," the team needs to answer a hard question. If the player chooses "dare," the team needs to do a small experiment.
- 6. The player wins if he or she reaches "50" first.

# **Experiment ("Dare")**

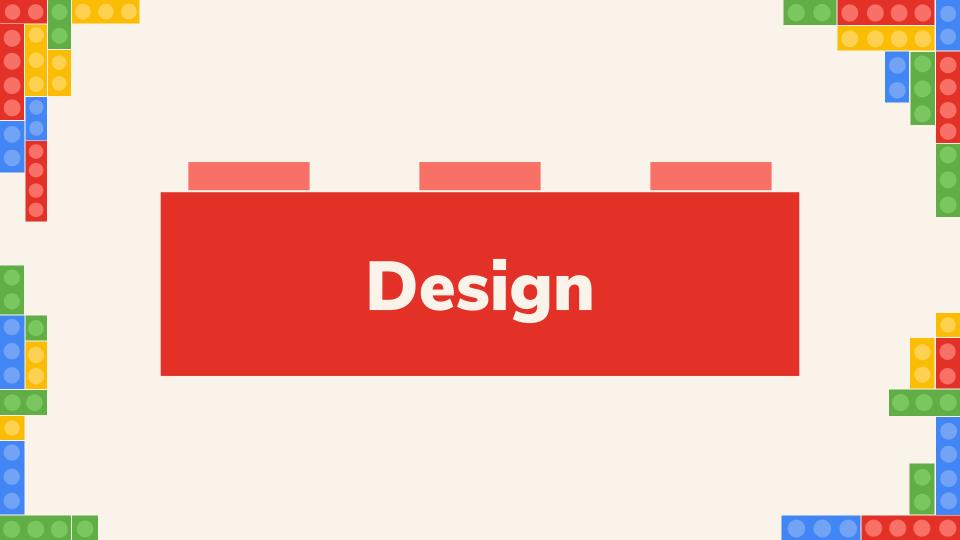
Three intentions are included in providing the "dare" part

- 1. Provide players solutions to deal with the real life situation/case
- 2. Encourage players to take actions after having reasons to make changes

# **Experiment ("Dare")**

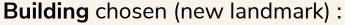
e.g. A 12 year old girl is suffering from anemic symptoms (anemia: when the blood lacks health red blood cells). She usually eats roti (carbohydrates) only for all of her meals on a daily basis. She feels tired and and dizzy, but she doesn't know why. Why is she showing these symptom? How can she be treated to feel better?

A: balanced diet and lacks vitamins, iron (e.g. eggs)



#### **Customized to Local Culture**





- Sri Lanka Colombo Tower
- 3D elements relating to the themes

#### **Art Nouveau Style**

Often used to express natural elements and sensuality

#### **Customized to Local Culture**

#### Game



#### **Questions**:

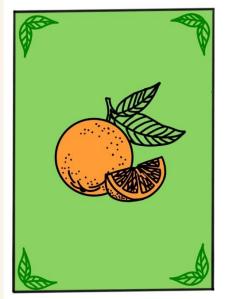
 Designed for children within the age groups based on their issues

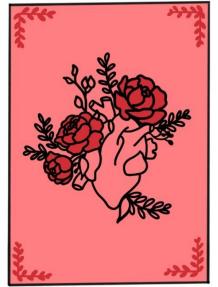


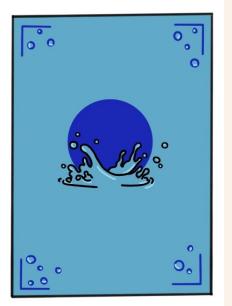
#### Game:

Special features (e.g. Action cards with experiments and switching position)

# **Card Categories**





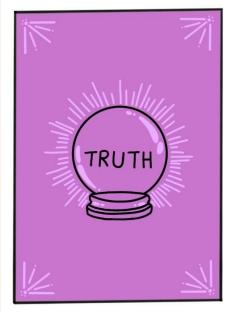


nutrition

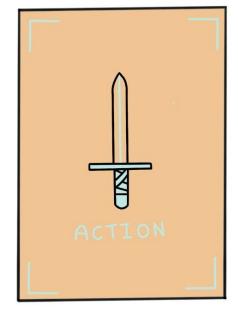
diseases

water a hygiene

# **Card Categories**







truth

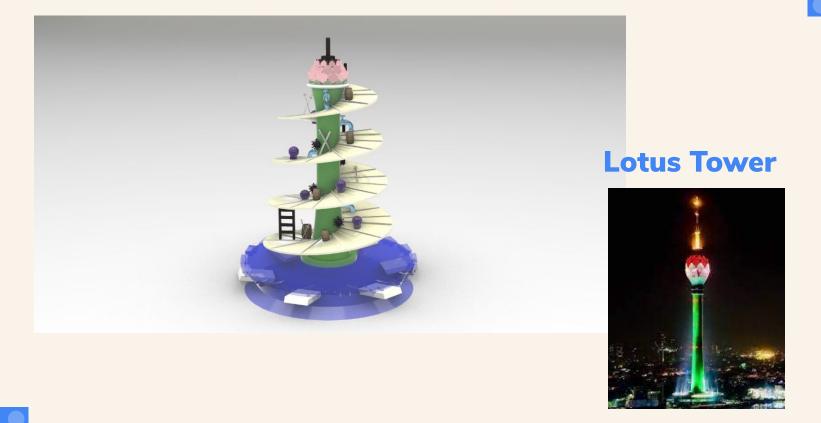
drug & alcohol

action

# **Card Categories**



#### **3D Model**



# **Engagement of** the TEA Leaders

**Interviews** 



**Suggestions** 



Common Issues in Sri Lanka



Academic Background (Knowledge levels on those issues)



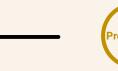
**Translation** 

Technology Background (Internet Accessibility)











**Interviews** 

**Suggestions** 

**In-depth Information** 

**Translation** 



Decide Target Group (Age 11-13)



Decide the Target Problems (Nutrition, Hygienes, Alcohol & Drugs)



Acknowledge the resources from TEA Leaders (Translation service)









**Interviews** 

**Suggestions** 

**In-depth Information** 

**Translation** 



Difficulty Level of I-KANDO (Refer to the syllabus)



Recommended Experiment Ideas (Water Filter, Making Soaps...)



Detailed Information about our target pain points (Nutrition, Hygienes and Alcohol & Drugs)





Translate I-KANDO instructions and quizzes to Tamil



Plan A

Through International Logistics Company Plan B

Reached Local 3D printing company



**Received I-KANDO** 

**Understood I-KANDO** 

I-KANDO Briefing with TEA Leaders **Supervised the children** 



**Detailed Instructions**Booklet in I-KENDO



**Demonstration Video** QR Code in I-KENDO



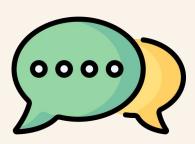
**Received I-KANDO** 

**Understood I-KANDO** 

I-KANDO Briefing with TEA Leaders

Supervised the children

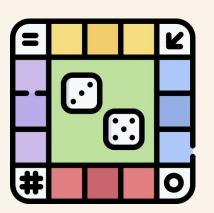




Online Chat through Whatsapp



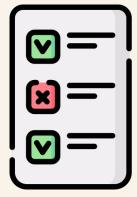
**Received I-KANDO** 



**Guide children** to play I-KANDO correctly

**Understood I-KANDO** 

I-KANDO Briefing with TEA Leaders



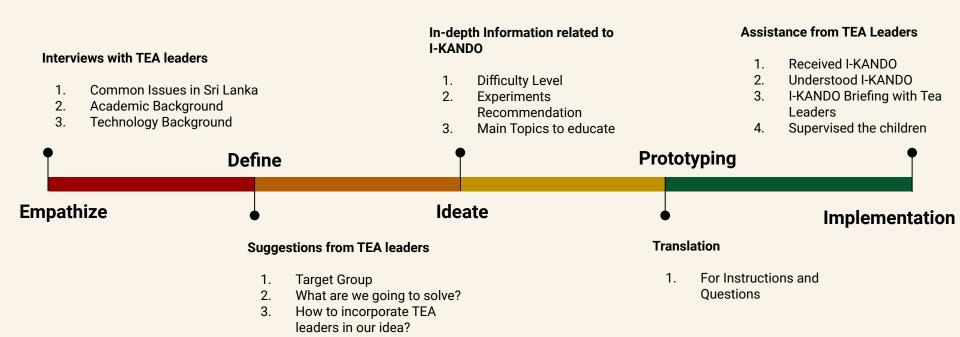
**Check Answers** for the Question part in I-KANDO

**Supervised the children** 



Supervise children on their experiments

#### **Roadmap with TEA Leaders**







#### **Location of TEA Head Office in Sri Lanka:**

98/4 Galkanda Rd.

Anniwatte Kandy, 20000

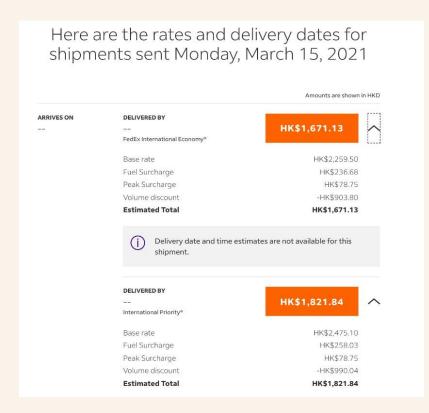
Central Province, Sri Lanka

## **Some Delivery Services Solutions**

- International Logistics Company (ex: FedEx, DHL)
- 2. Local 3D Printing Service
- 3. Use Connections

# International Logistics Company

#### **FedEx Estimated Time and Cost**



#### FedEx

- Estimated time:
  - 2 days for FedEx International Priority (March 17)
  - 10 days for FedEx International Economy (March 25)
- Cost:
  - 1671.13 HKD (considering maximum 10.5kg)

## FedEx Size and Weight

- Maximum weight international: 68kg per piece
- Maximum length: 120cm
- Maximum 2nd longest side: 70cm
- Maximum length + girth (L+2xW+2xH): 266cm

Service	Parcel Weight	Actual Weight	Dimensions	Divisor	Volumetric Weight	Chargeable Weight
FedEx International Priority®	10kg	10kg	50 x 30 x 20cm	5000	5kg	10kg
FedEx.	10kg	10kg	50 x 60 x 40cm	5000	24kg	24kg

#### FedEx Sri Lanka Import Prohibitions

Acids

Batteries, Haz

**Bearer Documents** 

Bio Products, Haz

Books: hardback/paperback non-comm

Chemicals, Haz and Non-Haz

Communications equipment

Compact discs

Corrosives

Cosmetics, Haz

Cotton seeds

Dangerous Goods as defined by IATA (Intl. Air Transport

Association)

Drugs/Narcotic Substances

Drugs, Prescription and Non-Prescription

Films: entertainment

Firearms

Flammables

Gambling devices

Gases

Ice, Dry

Ice. Wet

Infectious Substances

Liquids, Haz

Magnetized Materials

Military equipment

Obscene Literature (material ridiculing any religious belief)

Oxidizers

Paints, Haz

**Passports** 

Perfume, Haz

Personal Effects

Phones/modems

Plant products

Plants

Poisons

Radar equipment

Radio equipment

Radioactives

Seeds

Ship spares

Tapes, video cassettes

Telecommunications equipment

Toiletries, Haz

Toys

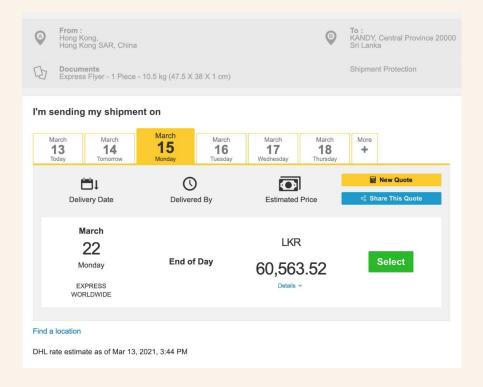
#### **FedEx Documentations**

#### Fill in the **Electronic Trade Documents (ETD)**:

- From and To
- Package and Shipment Details (Ship date, number of packages, weight, etc.)
- Billing Details
- Pick-up / Drop-off



#### DHL



#### DHL

- Estimated time:
  - o 7 days (March 22)
- Cost:
  - 60563.52 LKR, or 2393.58 HKD

#### **DHL Size and Weight**

- Maximum dimensions per item: 120 x 120 x 150 cm high
- Maximum recommended weight for parcels: 70 kg (but flexible)

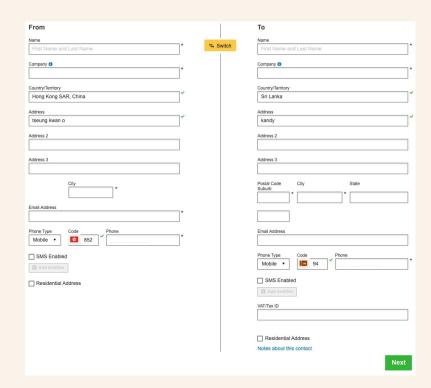
Service	Parcel Weight	Actual Weight	Dimensions	Divisor	Volumetric Weight	Chargeable Weight
DHL Express Worldwide	10kg	10kg	50 x 30 x 20cm	5000	6kg	10kg
DHL Express Worldwide	10kg	10kg	50 x 60 x 40cm	5000	24kg	24kg

#### **DHL Sri Lanka Import Prohibitions**

- Live animals
- Hunting (Animal) trophies, animal parts such as ivory and sharks fin, animal remains, or Animal-by-Products and derived products not intended for human consumption, prohibited for movement by the CITES Convention and/or local law.
- Human remains or ashes
- Bullion (of any precious metal)
- Cash (current legal tender)
- Loose precious and semi-precious stones
- Complete firearms, ammunition, explosives / explosive devices
- Illegal goods, such as counterfeit goods and narcotics

#### **DHL Documentations**

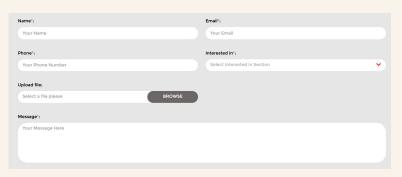
- Finish the parcel details online
  - Shipper's and Receiver's information
  - A full description of the shipment contents
  - Shipment details (number of packages in the shipment, total weight of the shipment and dimensions)
  - Payment for services as well as destination duties and taxes
  - If the shipment is dutiable (non-document), the value of the goods and associated codes



# **Local Printing** Service

#### **Local 3D Printing Service**





## 3D Tech Prototyping Company (Pvt) Ltd.

- Address: No. 444/1, Galle Road, Ratmalana, Sri Lanka
- Time: Around 4-hour ride from TEA plantation
- Cost: Not specified
- Order: through submission in "SHOP"

#### **Local 3D Printing Service**



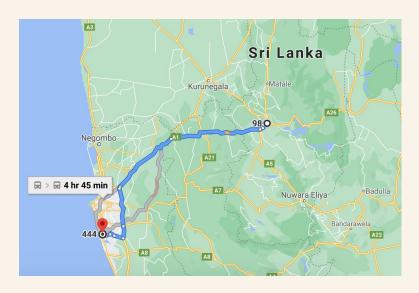


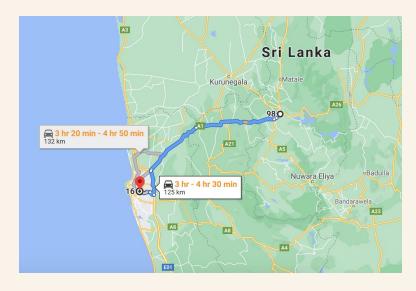
#### Makerlabs

- Address: 16, 14A Maligawa Rd, Sri Jayawardenepura Kotte 10100, Sri Lanka
- Time: Around 4-hour ride from TEA
   Plantation
- Cost: Normally Rs 30 per gram (but depends on the complexity and the materials of use)
- Order: make and account and order through online quotation form

#### **Local 3D Printing Service**

Ask the TEA leaders whether they could pick up the design





3D Tech Makerlabs

# Behavioral Changes

#### The elements included in our game

**Education: (To change their mindsets - long term effect)** 

- The questions we designed are specific to the situations they are facing
- The question bank includes 4 main categories



**Nutrition** 



**Specific Diseases** 



Smoking/ Drug/ Alcohol Abuse



Hygiene

#### 7-Week Challenge-Behavioral Change

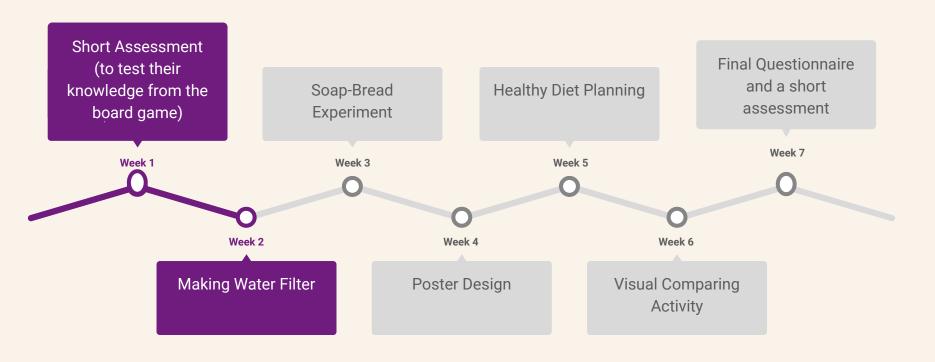
A study published in European Journal of Social Psychology in 2009 stated that it takes about **two months** on average to form a habit.

We would require the participants to take photos everyday to demonstrate that they have used the products made by themselves for 7 weeks. (For particular experiments such as the water filter and the diet planning part)

A **stamp or sticker** will be provided by the leaders if participants have shown the demonstration everyday (Finish one experiment will earn 5 stamps, use the products everyday will earn extra on stamps or sticker per day)

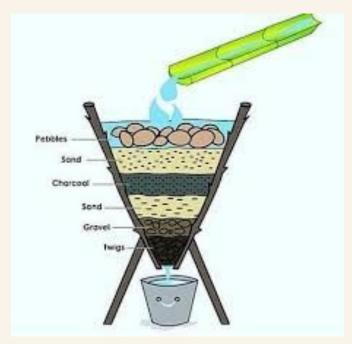
The participants who successfully use the products consecutively for 7 week will **earn a certificate** (for motivation)

#### 7-Week Challenge Example (to be modified)



#### 1. Making Water Filters

To promote drinking of clean water and importance of personal hygiene.



### 2. Soap-Bread Experiment

This experiment would show the visible difference and importance of using soap when washing hands.



#### 3. Poster Design

For the purpose of promoting and advocating about common disease knowledge to others in the community.

Require players to design posters

Players can select any topics that they found interesting about common disease in Sri Lanka from the game.

Posters will be sticked in the community center and other places in the area (if possible).

#### 4. Healthy Diet Planning

To learn how to eat healthy with the budget given.

Children will be given a budget (e.g. daily earning of a TEA plucker) to plan a healthy balanced meal.

Children may have to go to the markets to compare and decide the ingredients, which would also allow them to learn about the current market prices.



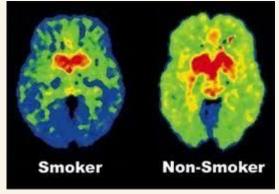
### 5. Visual Comparing Activity

This activity's purpose is to show the consequences of when one abuses drugs, alcohol, and/or smoking.

Most of the times, it is hard to understand the extent of damage that they cause because they cause internal damages.

Images/videos of lungs, brain scans, etc. will be shown and asked to identify the reason why one looks unhealthy and what this impact means.





### Follow-up of Follow-up: Questionnaire

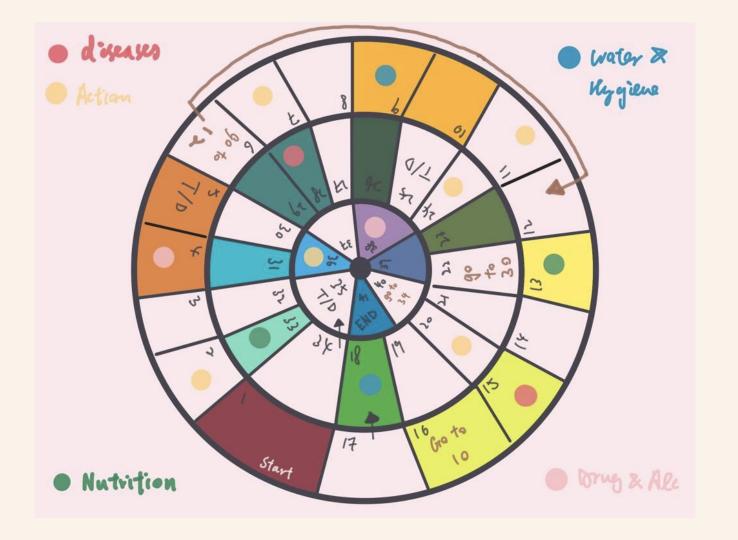
Answering a survey in the last week of 7-week challenge

Purpose: Keep track on the effectiveness of our game, and find out the parts that we can further improve

The questions may include:

- 1. The effectiveness of our game to improve their health states
- 2. The sense of satisfaction brought by our game (For future improvement/users feedback)
- 3. A short assessment before and after the program (To test whether they absorb the knowledge we want to inform them)









#### **Sources**

3D Tech. (2021). Retrieved March 13, 2021, from http://www.3dtech.lk/

DHL express. (2020). Retrieved March 13, 2021, from https://www.transglobalexpress.co.uk/services/dhl-express/

FedEx express®. (2020). Retrieved March 13, 2021, from https://www.transglobalexpress.co.uk/services/fedex/

MakerLabs Sri Lanka. (n.d.). Retrieved March 13, 2021, from https://www.makerlabs.lk/

New customer CENTER. (2021). Retrieved March 13, 2021, from https://www.fedex.com/en-hk/new-customer/how-to-submit-electronic-documents.html

Sri Lanka prohibited and restricted items. (2021). Retrieved March 13, 2021, from https://crossborder.fedex.com/us/assets/prohibited-restricted/sri-lanka/index.shtml

The T.E.A. Project. (2019). Retrieved March 13, 2021, from https://www.theteaproject.org/

What Documents Do I Need? (2021). Retrieved March 13, 2021, from https://mydhl.express.dhl/bn/en/help-and-support/shipping-advice/what-documents-do-i-need.html#/shipping\_labels