Building Dreams in Talented Adolescents and Fostering Collaboration for Space Silk Road

# **Belt and Road Teenager**

# **Space Maker Camp**

(2021)



"一带一路"青少年创客营与教师研讨活动 Belt and Road Teenager Maker Camp & Teacher Workshop

# **Title: Engineering Notes Regarding:**

# apollo XI CubeSat

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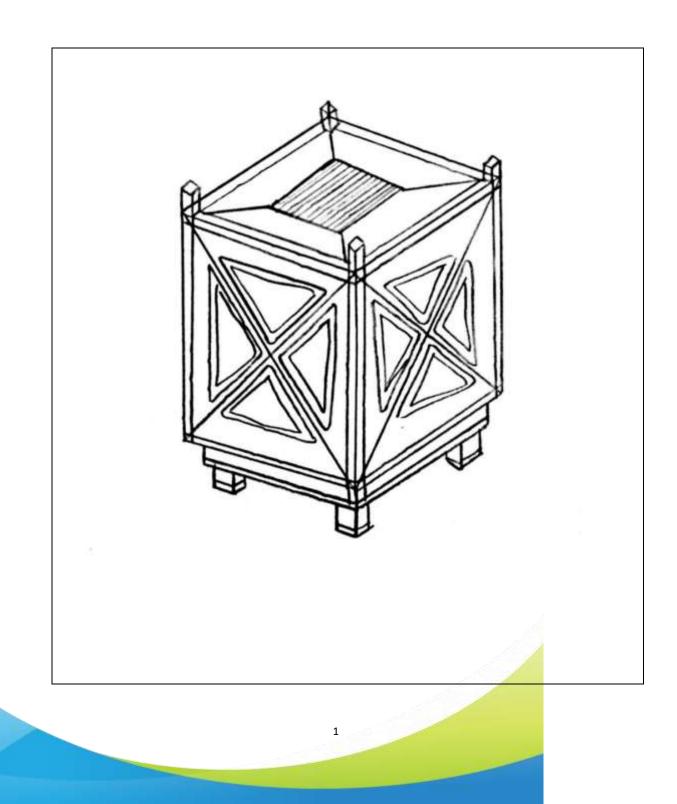




### **1.** Functional Description

*To clearly describe the application scenarios and functions of the CubeSat designed.* 

## 2. Design Drawing





# 3. Structural Design



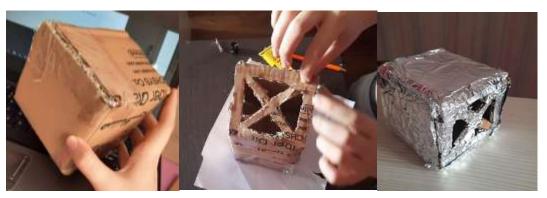




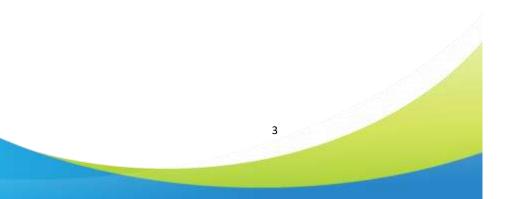
### 4. Materials Used

SN	Item	QTY	Use
1	cardboards	۳∙×20 cm Board	CubeSat skeleton
2	aluminum foil	۳۰×20 foil	Wall covering
3	MDF board	۳∙×20 cm Board	Increase the strength of the walls
4	solar panels	$18{ imes}5$ cm	CubeSat energy production
5	glue	1 Tube	Paste the material

### 5. Building Processes



- 1. Making the initial skeleton with MDF board and covering it with cardboard to increase strength.
- 2. Make holes for indoor tools and solar panels.
- 3. Cover the walls with aluminum foil.





#### 6. Key Technologies

First, we had to gain information about our project in general. We started with researching about satellites. We understood their structure, orbit pattern and etc.

Then we moved on to CubeSats and searched about them.

Then it was time to build our sample. First, we designed the structure on paper. Creating special spaces for everything.

Our cube is built from cardboards and MDF board and has special holes in them for solar panels.

We covered our cardboard cube with aluminum foil.

### 7. Summary

Our project was about CubeSats which a lot of people don't even know about. We had to use everyday material to create and protect environment.

We are very happy to have this opportunity and thankful for all the experience we gained.

