

CASE 04 · SPACE SCIENCE KIT

THE LANDER

ASSEMBLY GUIDE · Techtelligence- Elecbreaks

30 STEPS

DESIGN BRIEF

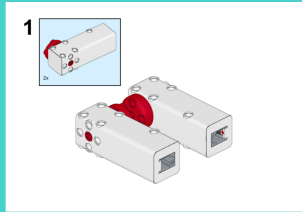
OBJECTIVE

Build a precision lunar lander module with deployable landing legs and payload bay. This compact 30-step build introduces students to structural engineering and soft-landing mechanics used in real space missions.

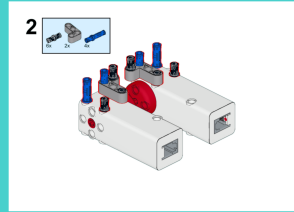
DESIGN PRINCIPLES

- | | |
|---------------------------------|---|
| 01. Structural Integrity | Robust modular frame construction ensures stability throughout the entire assembly and operation. |
| 02. Step-by-Step Build | Sequential instruction design guides students from individual components to a complete working model. |
| 03. STEM Integration | Hands-on mechanics reinforce space science, engineering, and robotics concepts at every stage. |
| 04. Scalable Design | Standardised connectors allow for reconfiguration and adaptation of the final model. |

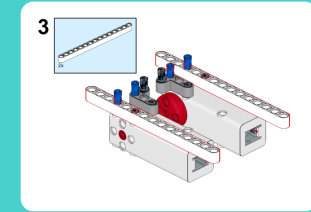
PROGRESS: 20% COMPLETE (6 of 30 steps)



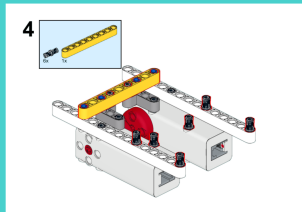
STEP 1



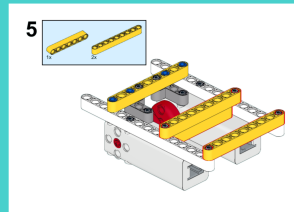
STEP 2



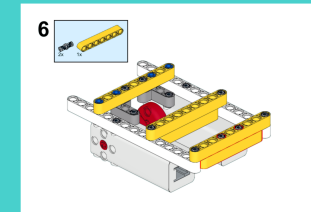
STEP 3



STEP 4

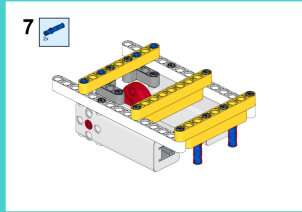


STEP 5

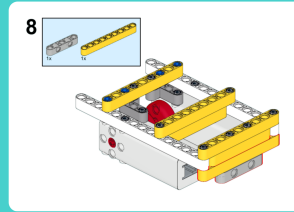


STEP 6

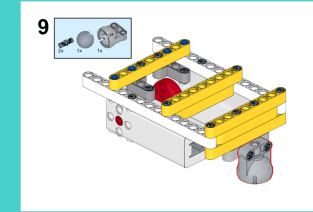
PROGRESS: 40% COMPLETE (12 of 30 steps)



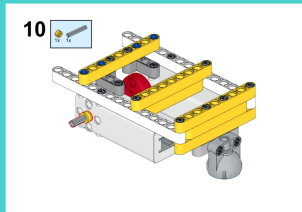
STEP 7



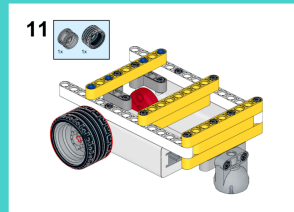
STEP 8



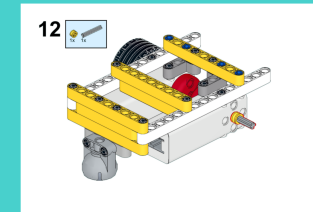
STEP 9



STEP 10

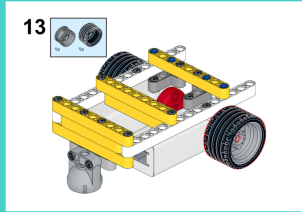


STEP 11

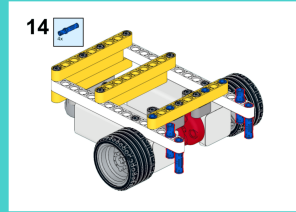


STEP 12

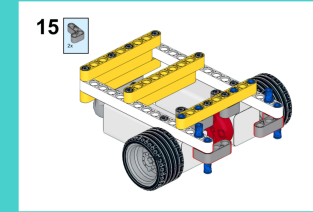
PROGRESS: 60% COMPLETE (18 of 30 steps)



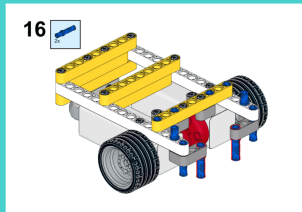
STEP 13



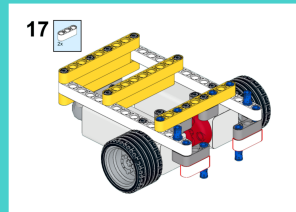
STEP 14



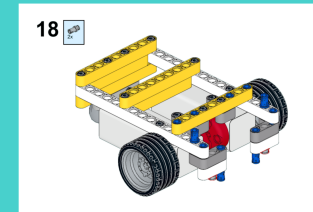
STEP 15



STEP 16

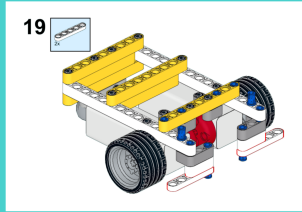


STEP 17

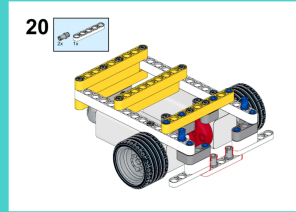


STEP 18

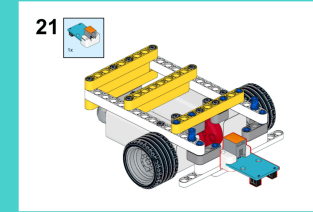
PROGRESS: 80% COMPLETE (24 of 30 steps)



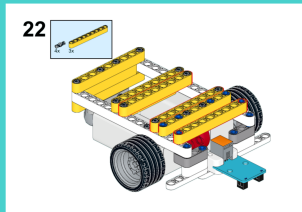
STEP 19



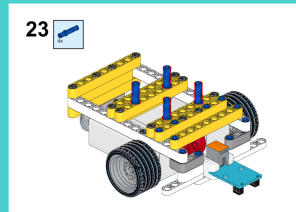
STEP 20



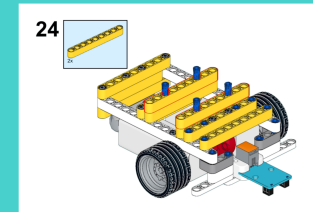
STEP 21



STEP 22

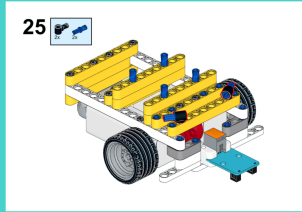


STEP 23

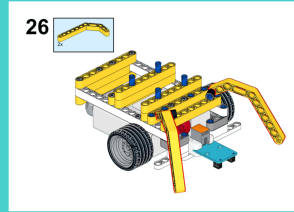


STEP 24

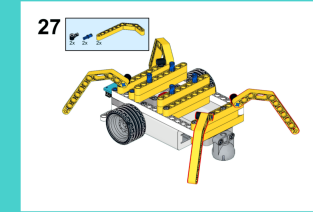
PROGRESS: 100% COMPLETE (30 of 30 steps)



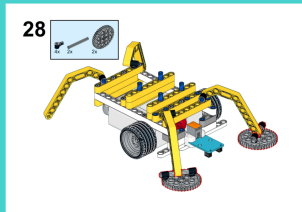
STEP 25



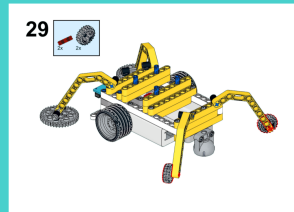
STEP 26



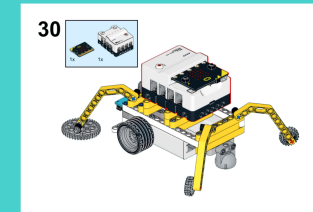
STEP 27



STEP 28



STEP 29



STEP 30