

CASE 3 · SPACE SCIENCE KIT

LUNAR LANDING ROVER

ASSEMBLY GUIDE · Techtelligence- Elecbreaks

66 STEPS

DESIGN BRIEF

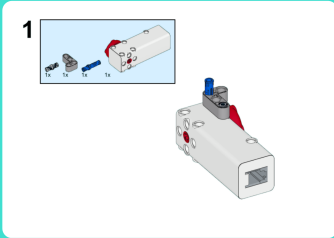
OBJECTIVE

Construct a fully functional Lunar Landing Rover using modular block-based components. Students explore lunar surface operations through systematic assembly of a motorised rover with articulated suspension and navigation systems.

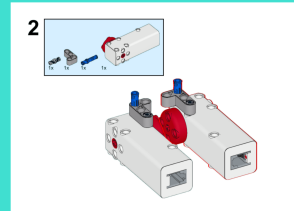
DESIGN PRINCIPLES

- 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.

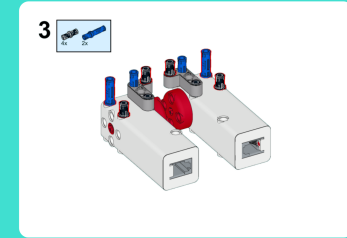
PROGRESS: 9% COMPLETE (6 of 66 steps)



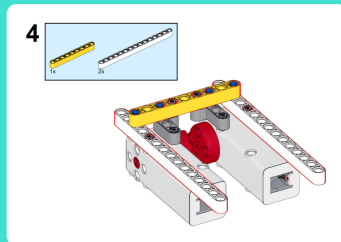
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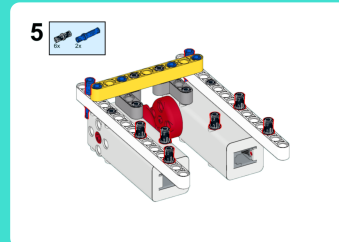
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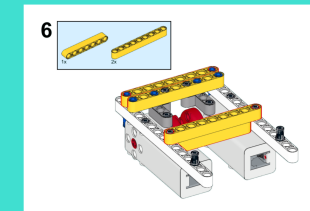
STEP 3



STEP 4

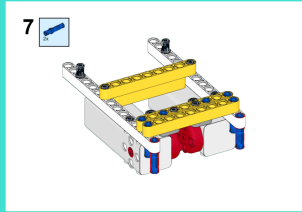


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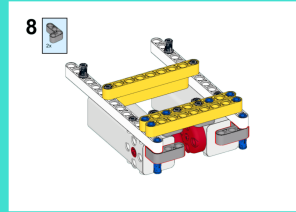


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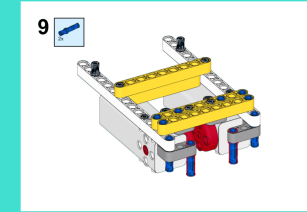
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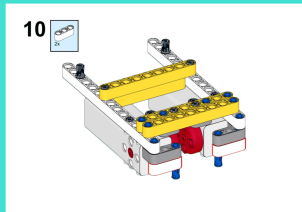
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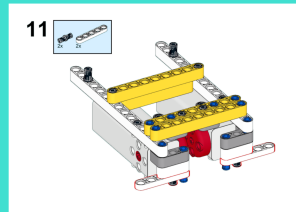
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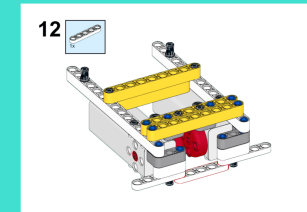
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STEP 10

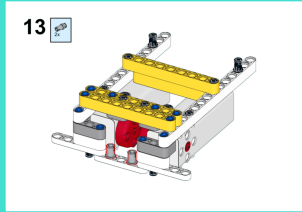


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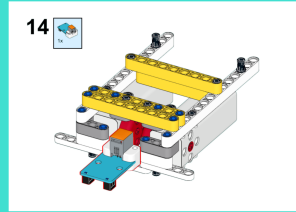


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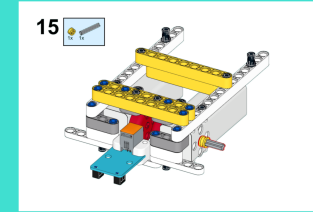
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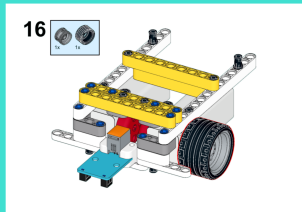
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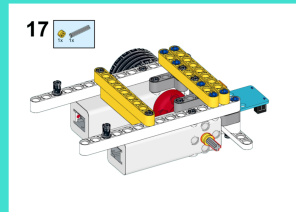
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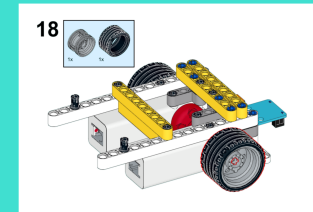
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STEP 16

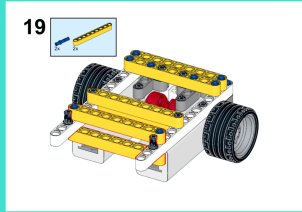


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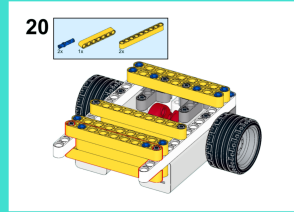


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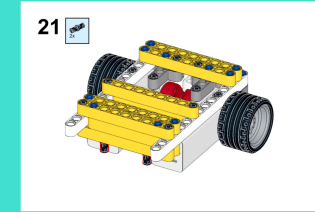
PROGRESS: 36% COMPLETE (24 of 66 steps)



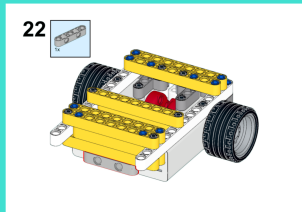
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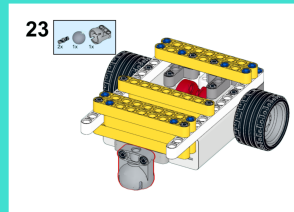
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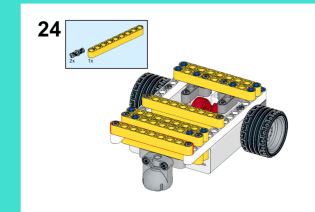
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STEP 22

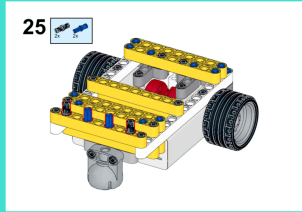


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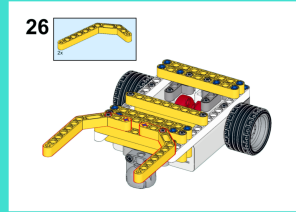


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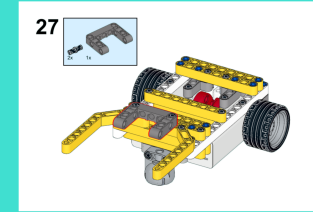
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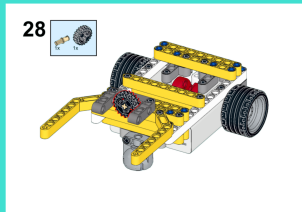
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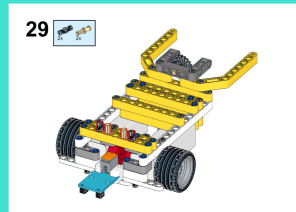
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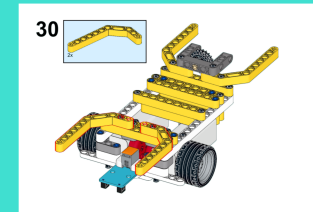
STEP 27



STEP 28

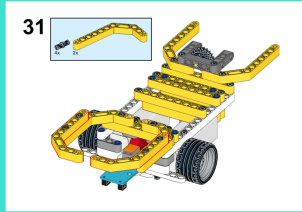


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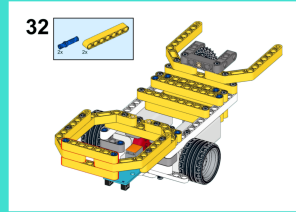


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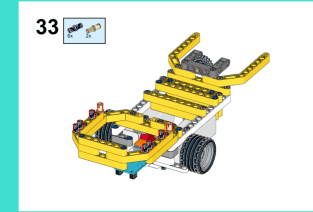
PROGRESS: 55% COMPLETE (36 of 66 steps)



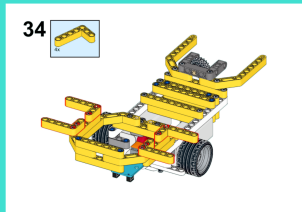
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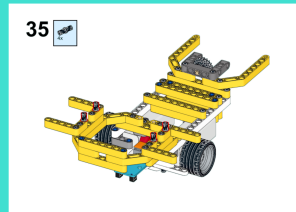
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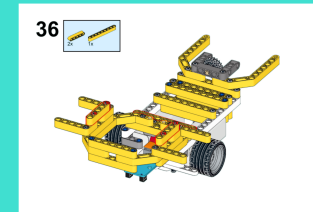
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STEP 34

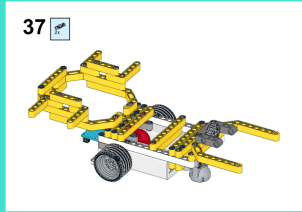


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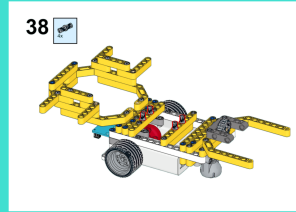


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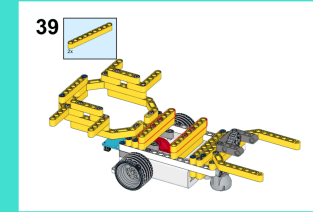
PROGRESS: 64% COMPLETE (42 of 66 steps)



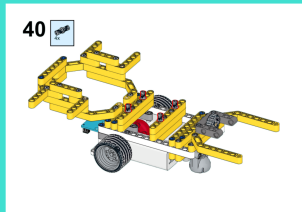
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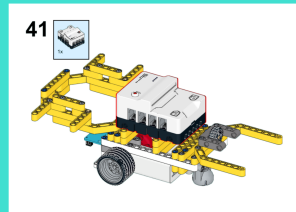
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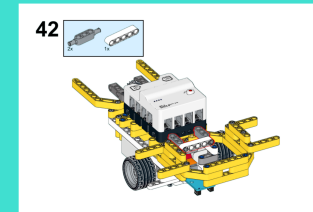
STEP 39



STEP 40

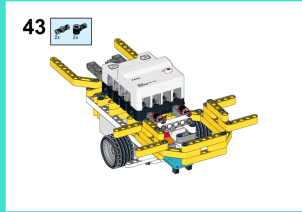


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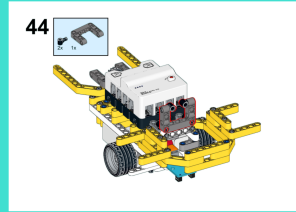


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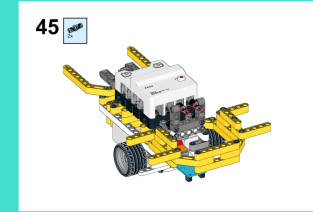
PROGRESS: 73% COMPLETE (48 of 66 steps)



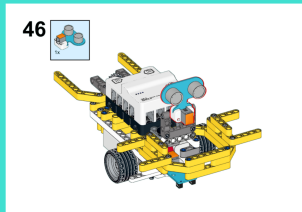
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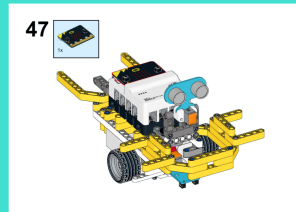
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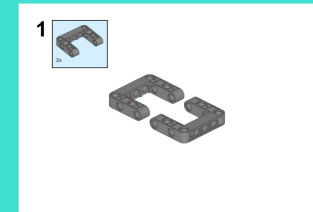
STEP 45



STEP 46

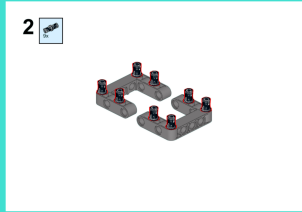


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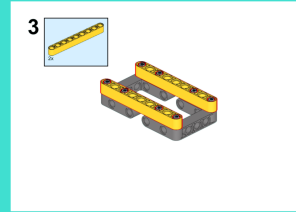


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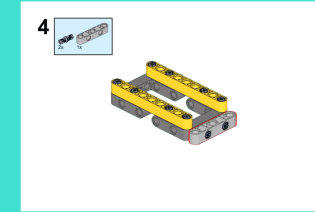
PROGRESS: 82% COMPLETE (54 of 66 steps)



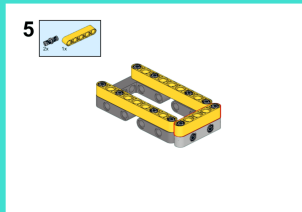
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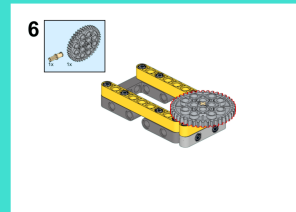
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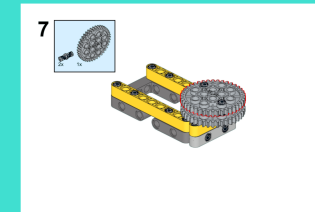
STEP 51



STEP 52

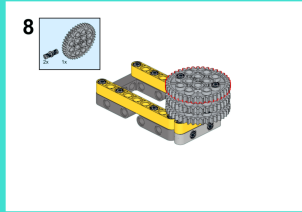


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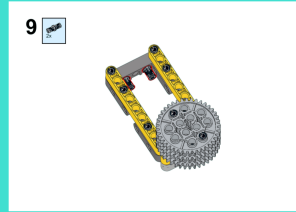


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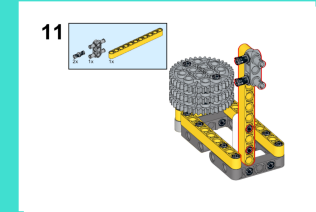
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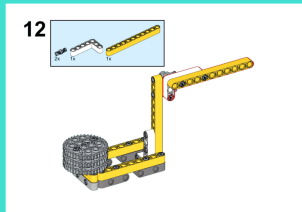
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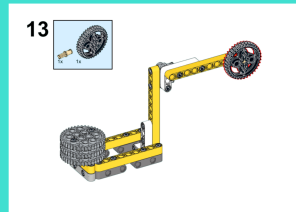
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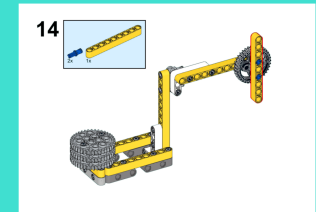
STEP 57



STEP 58

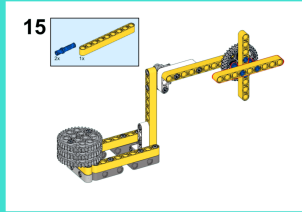


STEP 59



STEP 60

PROGRESS: 100% COMPLETE (66 of 66 steps)



STEP 61

STEP 62

STEP 63

STEP 64

STEP 65

STEP 66