

JUDO-BOTS HEAVY WEIGHT CHALLENGE



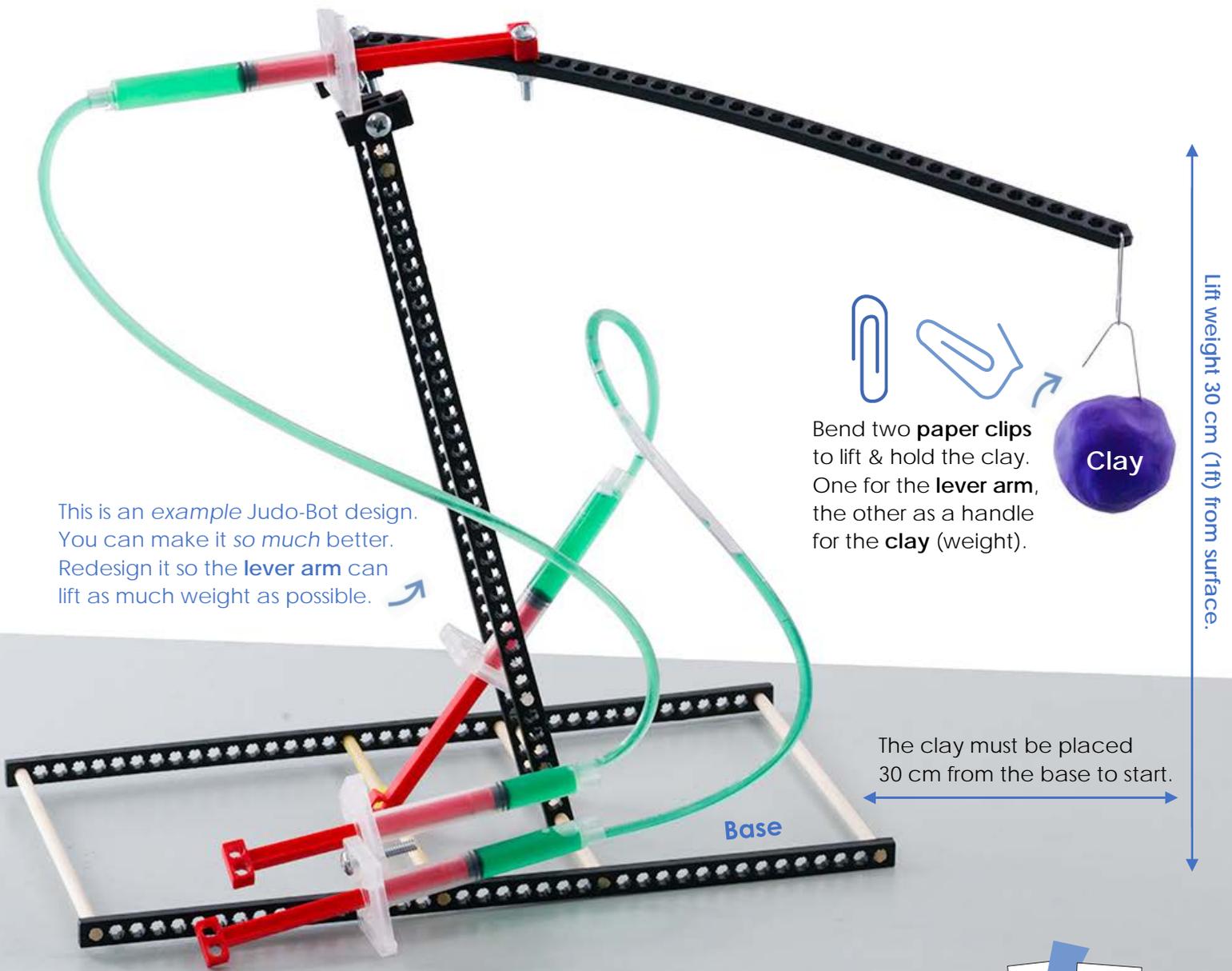
The Challenge: Redesign your Judo-Bot to lift the most weight, as high as possible, without the frame tipping over.

Difficulty: Hard

Challenge Supplies

Judo-Bot, paper clips, 100-500 grams of clay, ruler

Time Limit: Two-minutes

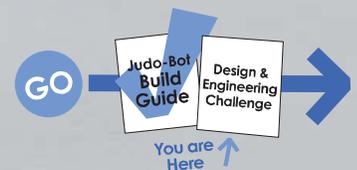


This is an *example* Judo-Bot design. You can make it *so much better*. Redesign it so the **lever arm** can lift as much weight as possible.

Bend two **paper clips** to lift & hold the clay. One for the **lever arm**, the other as a handle for the **clay** (weight).

The clay must be placed 30 cm from the base to start.

Optional: Make the challenge more difficult by requiring the bot's base stay in one place.



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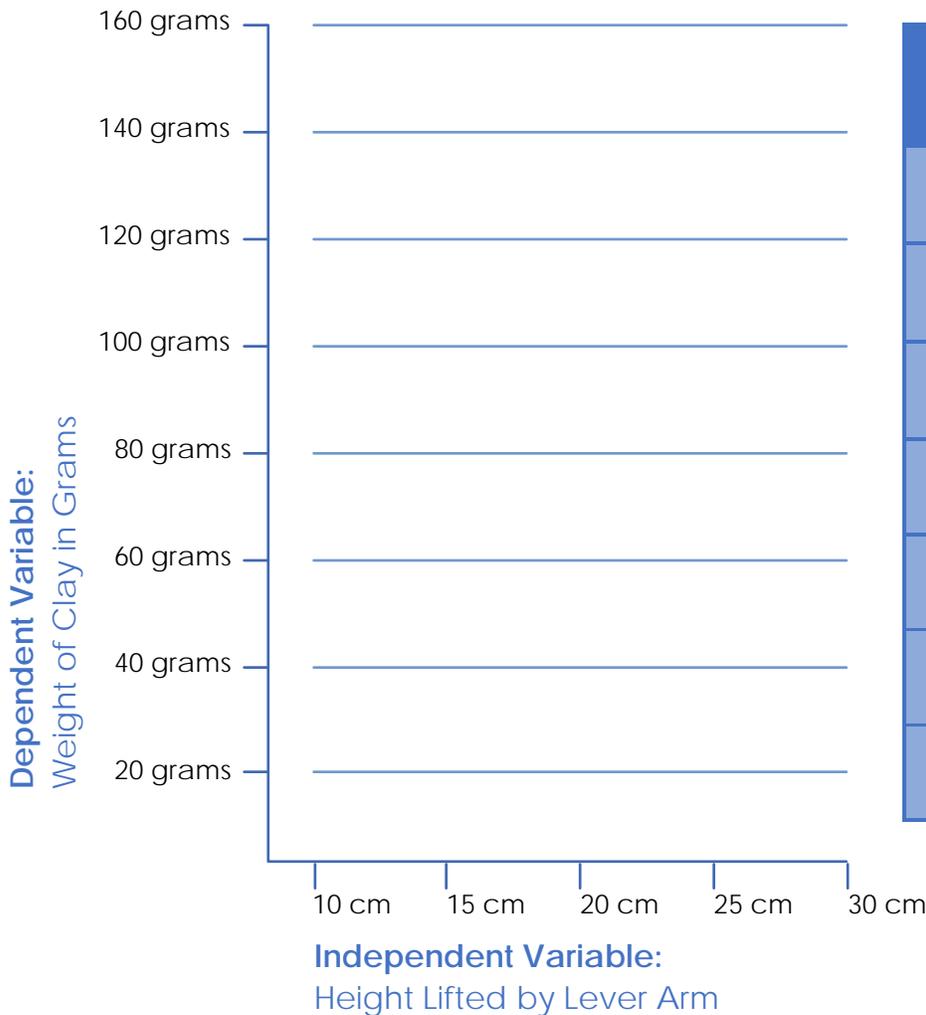
Constraints: (rules and limits for your design)

- Only **hydraulic power** may be used to move and control the Judo-Bot.
 - Hydraulic lines may not be pushed or pulled to move the bot – just **pistons**.
- The **base** may not be anchored (taped, screwed, bolted) to the challenge surface.
- The End Effector must be one paper clip, bent however you choose.
- Additional materials should be brought in for Judo-Bot designs, if they are:
 - TeacherGeek Components
 - Found & Recycling Bin Materials
 - Teacher Approved
 - Non-Hazardous (no sharp edges, harmful chemicals, etc.)
- You will have _____ to complete the design challenge.

Fill in how much time you have



The time from building and re-designing your Judo-Bot to the start of the competition.



	Weight Lifted (Grams)	Height Lifted (Cm)
Design #1		
Design #2		
Design #3		
Design #4		
Design #5		
Design #6		
Design #7		