



Name:

Date:

Ready for a little Tech Challenge fun?  
Let's build a release trigger for our timer!

### Design Problem

Create a mechanical timer, or a device that can indicate when a specific amount of time has passed.

**New Criteria:** Device needs to be activated by a trigger.



You have a new criteria! How will you know if you're successful?

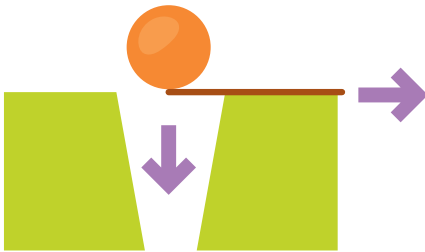
**Trigger:** A built-in mechanism that releases the stored energy in your device.

A trigger...

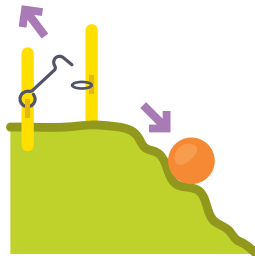
- Releases a device's stored energy (**potential energy**).
- Is the same no matter who starts it.

Some examples:

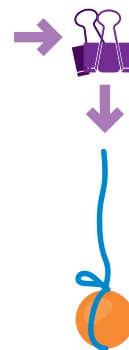
removing a stick



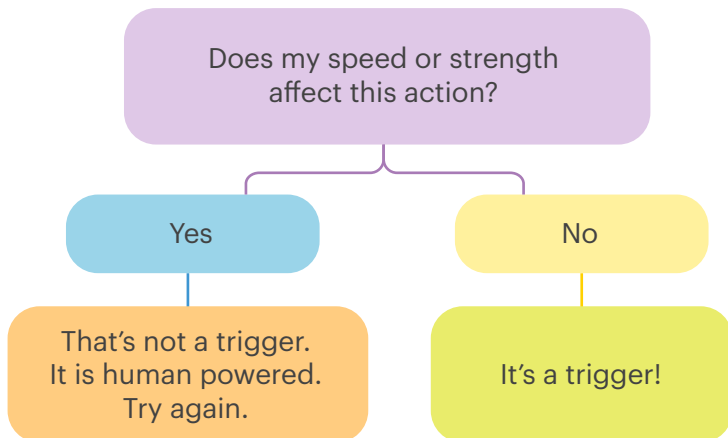
flipping a latch



opening a clip



Ask yourself:



How could you design a trigger that you release from a few feet away?



## Ready, Set, Build!

1. Reflect: Did you meet the previous criteria? Do you need to adjust anything before designing your trigger?
2. Create the trigger for your device.
3. Keep testing as you build!
  - Make observations on how your device performs. How does it meet the criteria?
  - Use these observations to iterate, or improve on, your next design!

**Device Sketches** Use the space provided to take notes, sketch, and reflect.  
See if you can include where energy is stored or transferred from one object to another.

## Test Results

# of seconds						
Observations						

While building I changed...	If I had more time I would change...
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