

# Classic A-frame

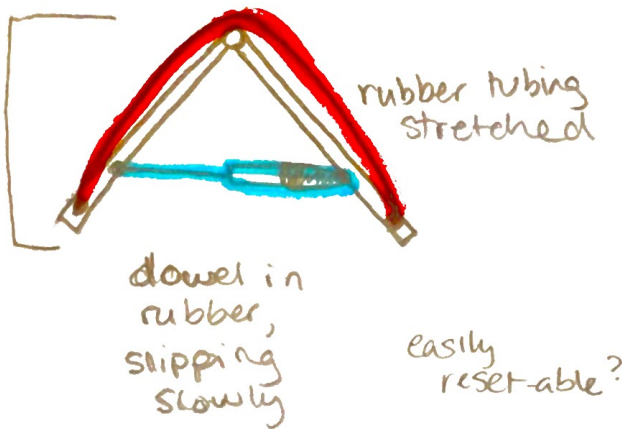
①



- connect R1s & R2s w/ rubber tubing.
- 2 pieces = 2x as much jump?
- adjust length for stretchiness

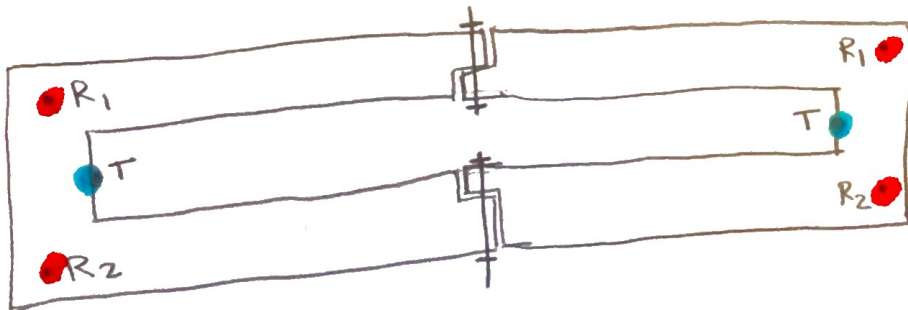
(add weight/length to one side for spin?)

What is optimum 'tallness'? tall or flat?



- inspired by click beetle:
- ① arches back, storing energy
  - ② slips peg and folds forwards head into tail lifting eg

## variation 2 - flat w/ slot



this makes almost flat possible

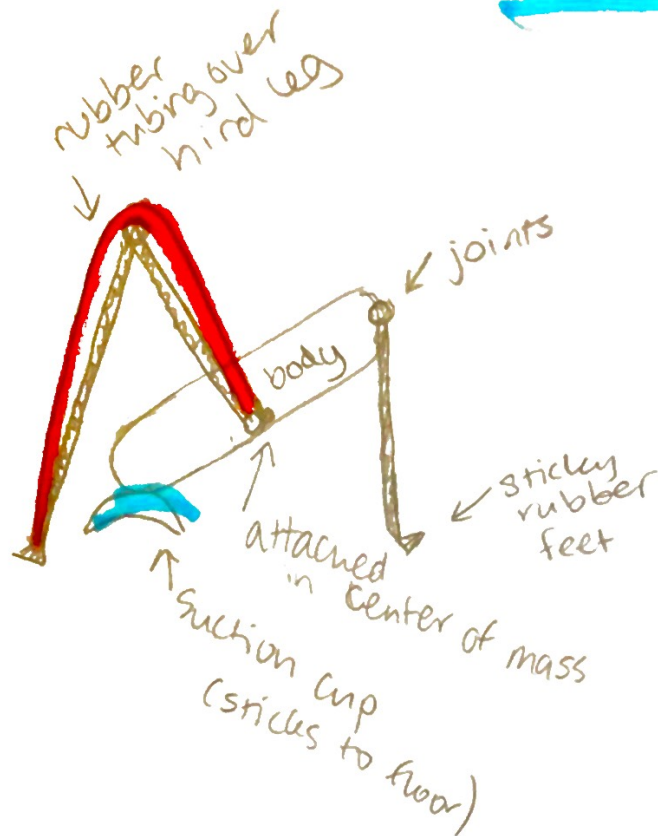
## UNIQUE

this design contains two long pieces of rubber tubing storing a lot of energy and starts in an "A" shaped configuration

but makes the structure weaker

# Cricket hopper

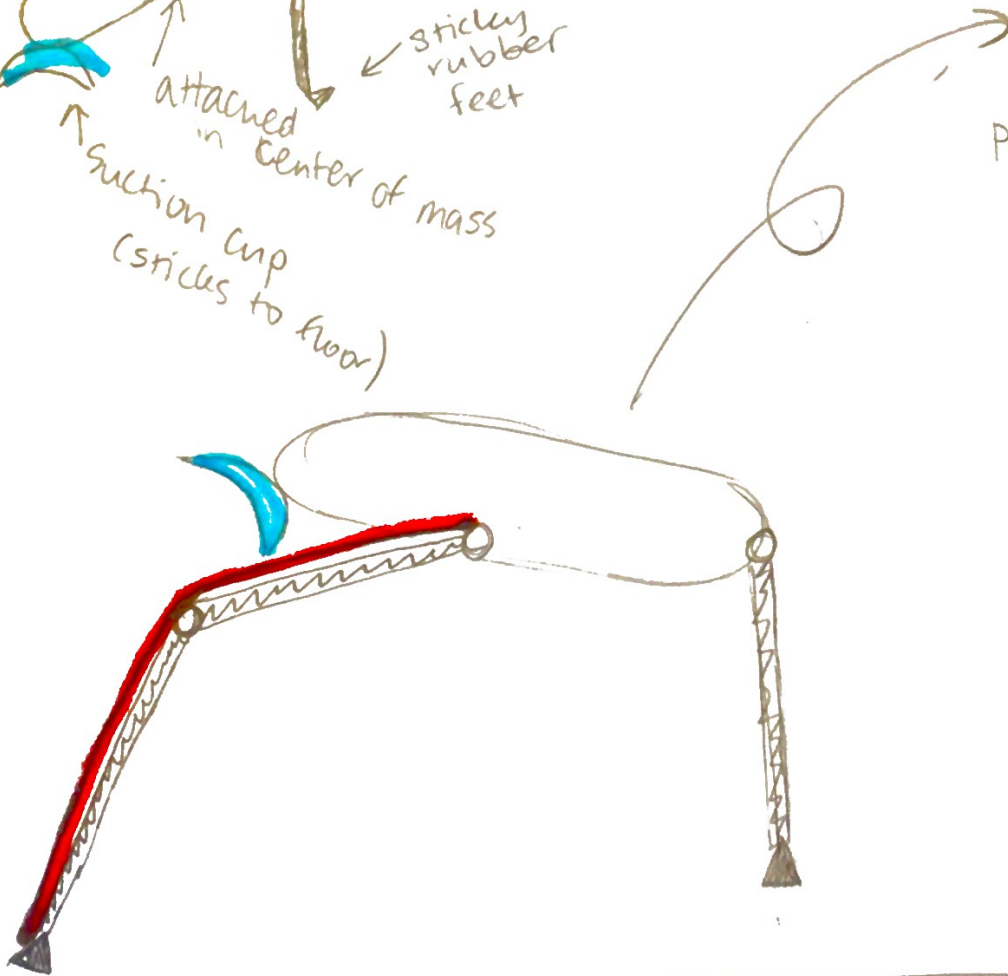
(2)



## UNIQUE

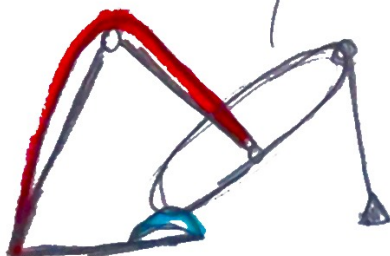
uses back leg extension to launch body, triggered by suction cup release

probably spins in summer-sault



## variations

- in case back foot slips, add foot/base plate or hooks



holds butt to back foot

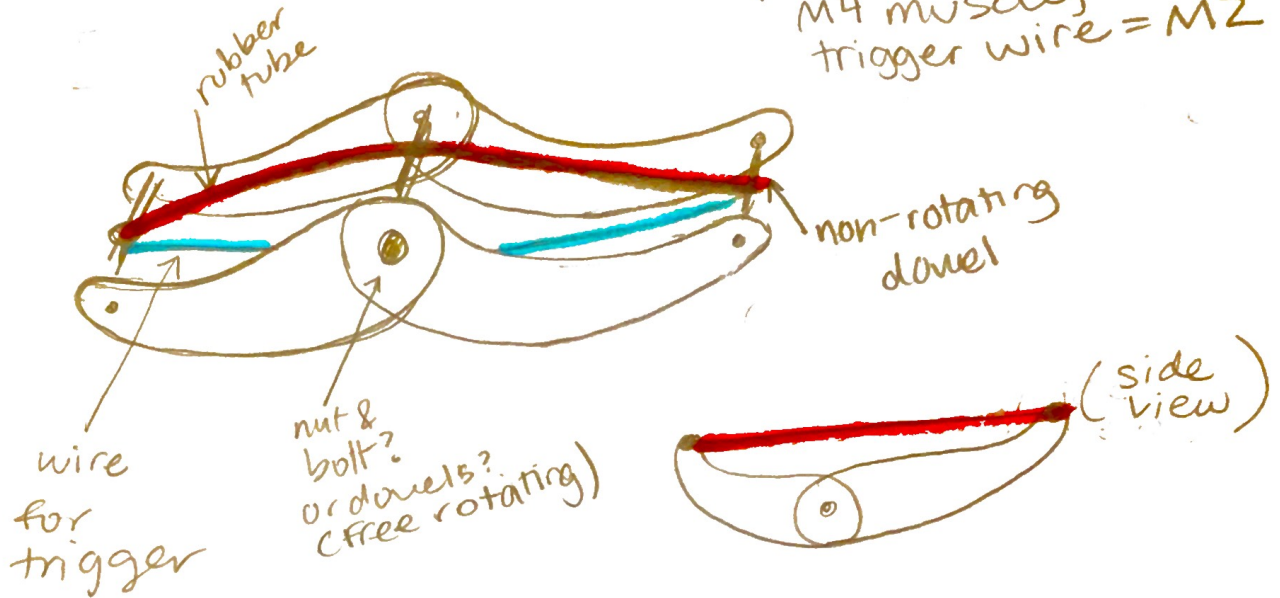
# jackknife

(3)

- sturdier
- better geometry

## UNIQUE

click-beetle shaped  
Frame with middle  
pivot. rubber tube =  
M4 muscle,  
trigger wire = M2



## Triggers

would be  
beneficial  
to weight  
the ends  
heavier  
than  
middle?



spring  
wire  
trigger?

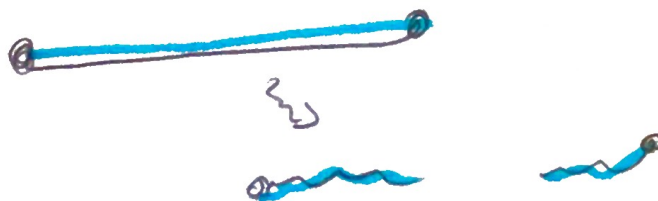
re-bend  
each  
time



string → dowel → shoved into  
rubber tube  
pulls to release



burn fishing line  
using rocket igniter  
+ capacitor?

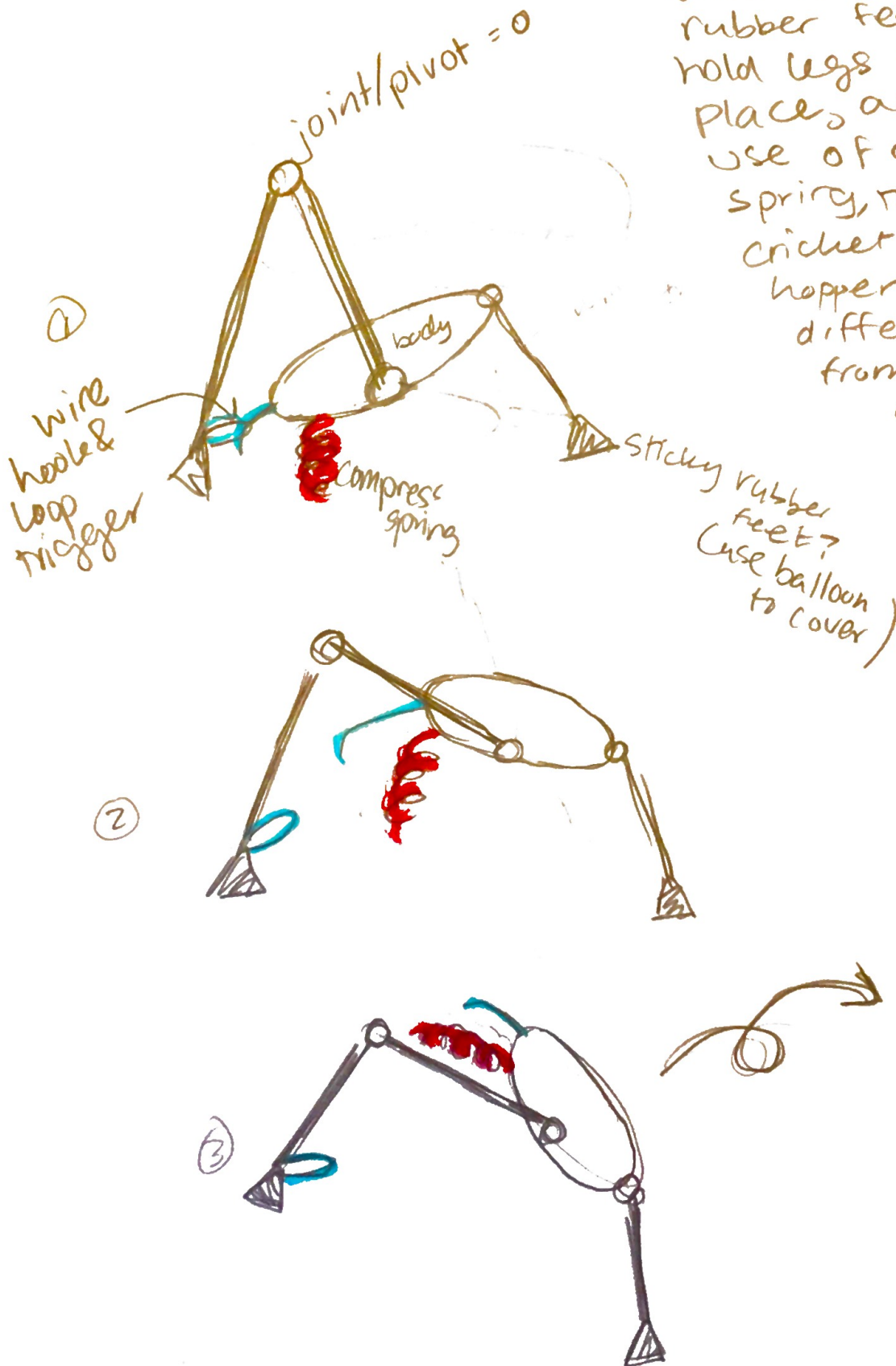


(4)

# Springy

## UNIQUE

with its sticky rubber feet to hold legs in place, and use of compression spring, this cricket-shaped hopper is very different from my other designs





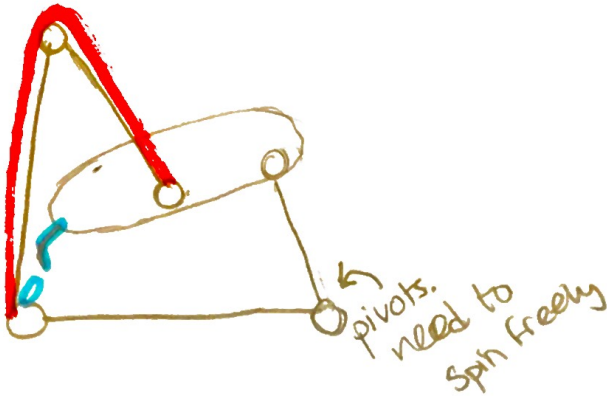
# 4-bar Link (cricket)

(5)

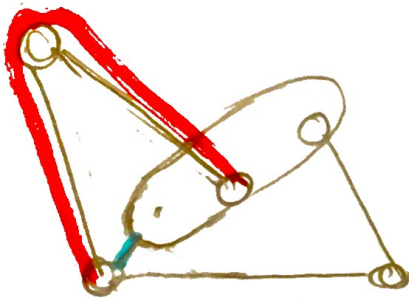
UNIQUE

connects front and back legs to create more stable frame to launch from surface

①

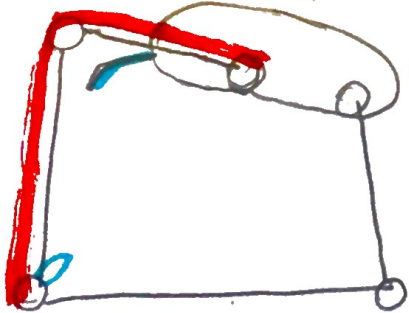


②



locks in down ward position using wire hook

③



need to keep legs light, body heavy?

