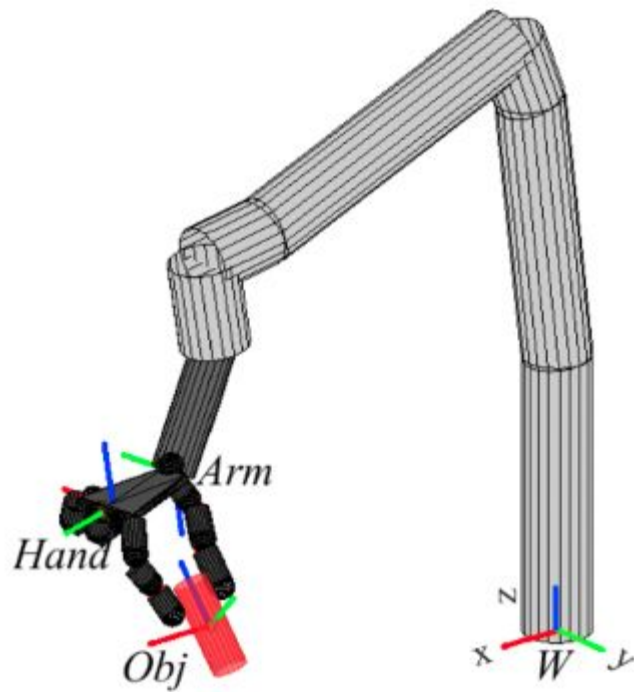# Giant Robotic ARM Of Death

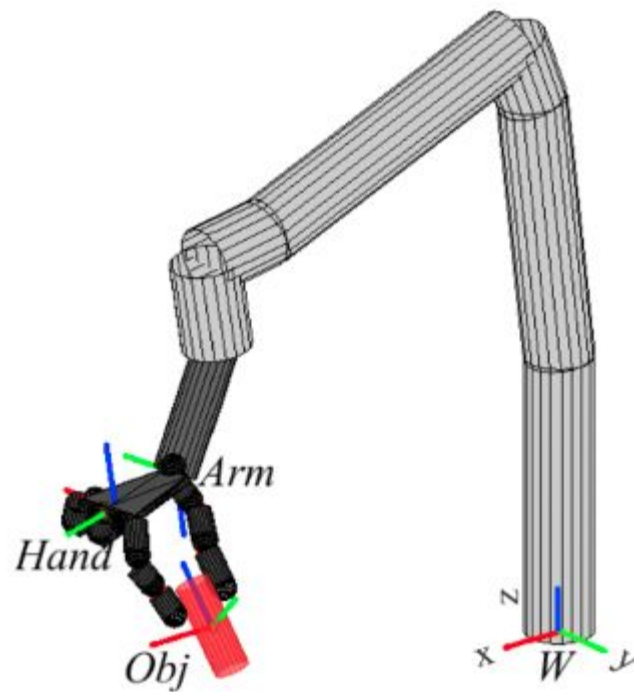**Agent:** controller of Giant Death Robotic Arm

Environment: robotic arm itself + its interaction with blocks

Giant Robotic ARM Of Death

Purpose:

- ~~grab and smash people~~
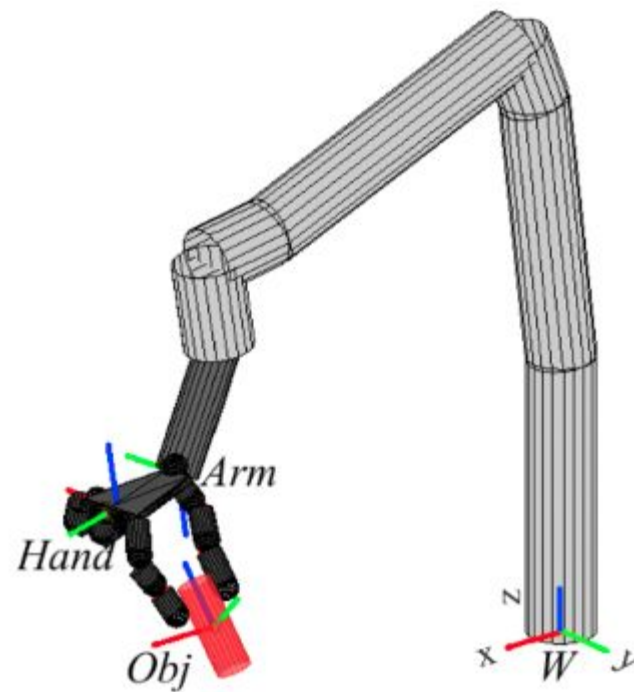- take and lift objects

Giant Robotic ARM Of Death

Two ~~(three)~~ stages:

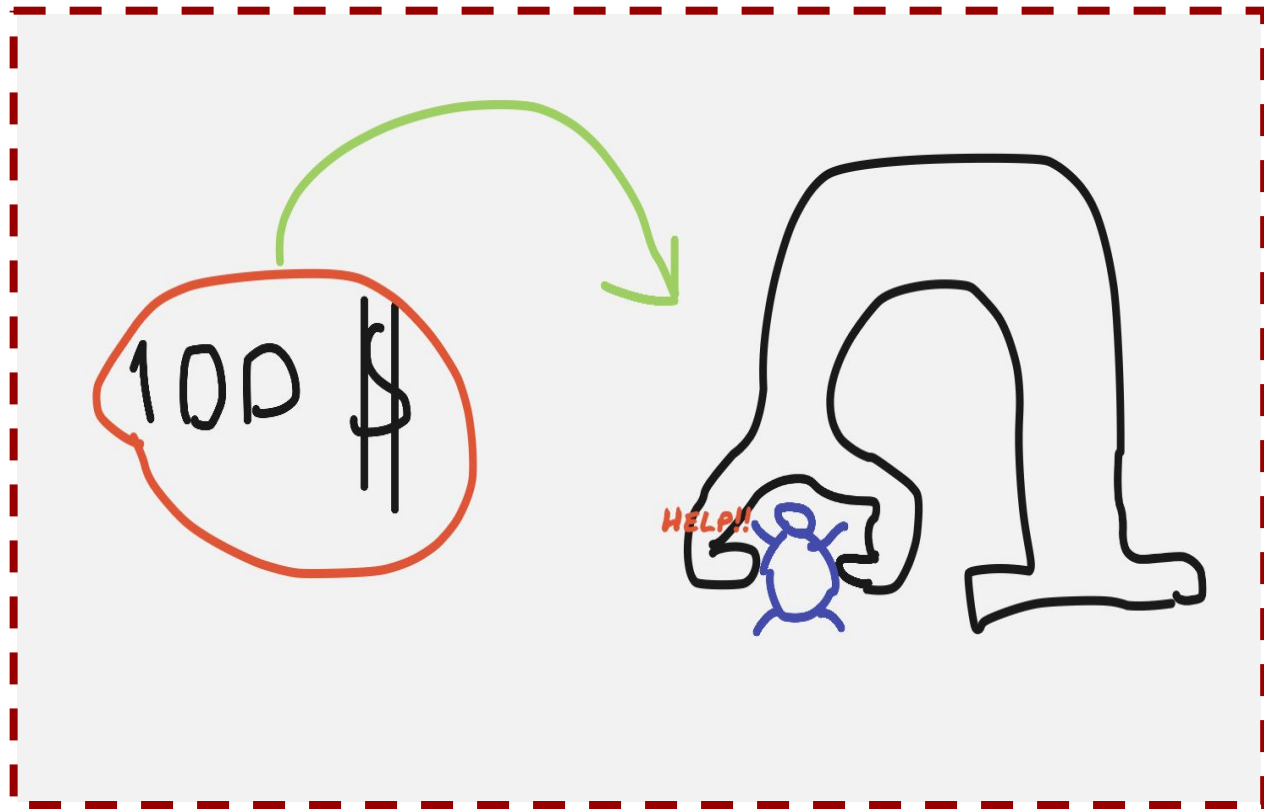1. grasp object
2. lift object
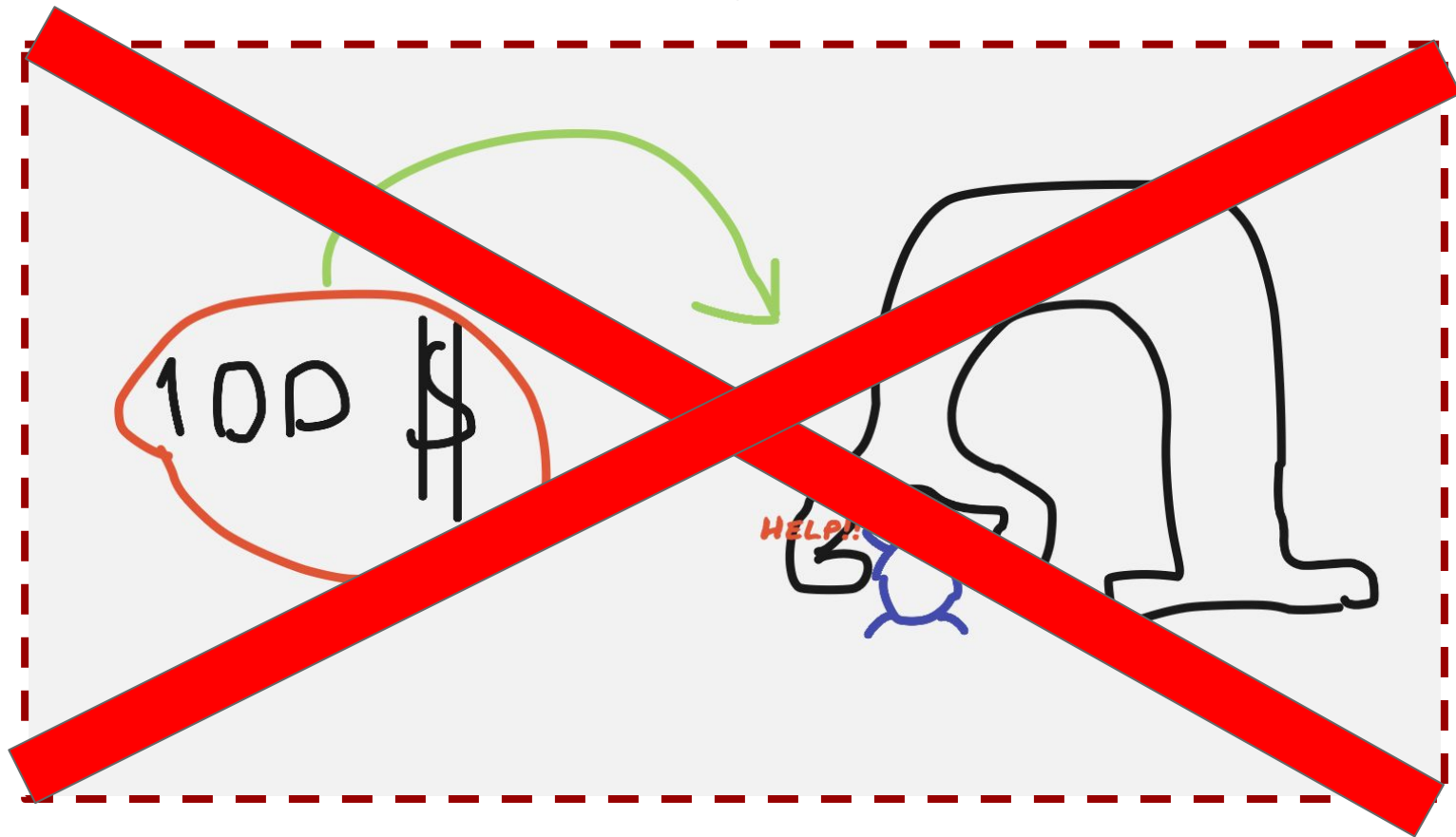3. ~~smash object~~

MAKE REWARD STAGED

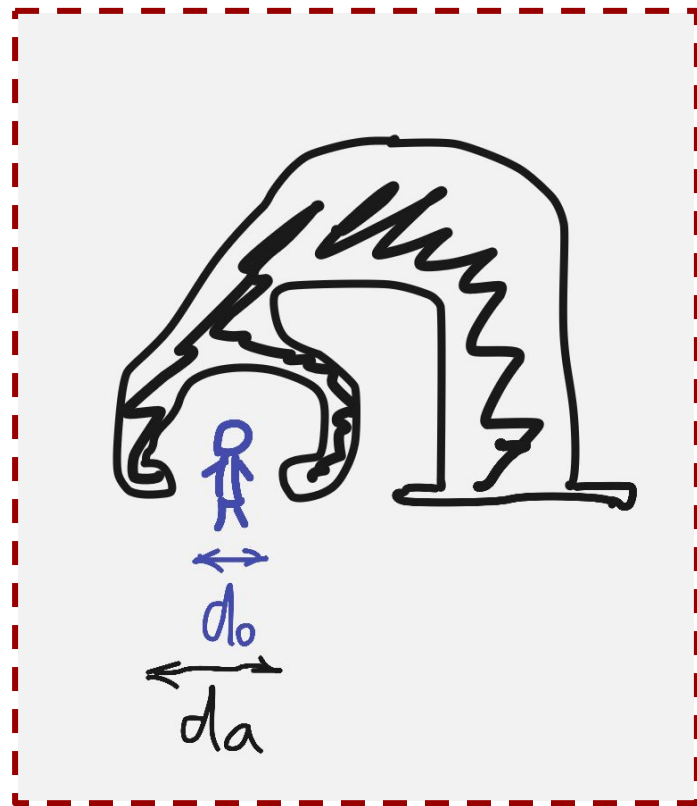# Reward for Giant Robotic ARM Of Death - Grabbing
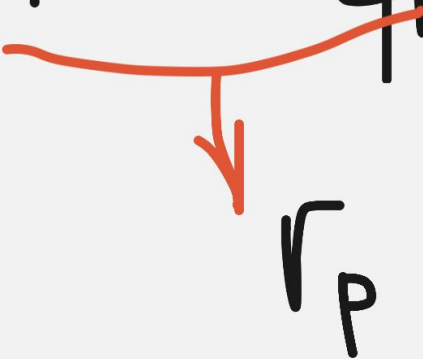
Is it a good reward?

Reward for Giant Robotic ARM Of Death - Grabbing

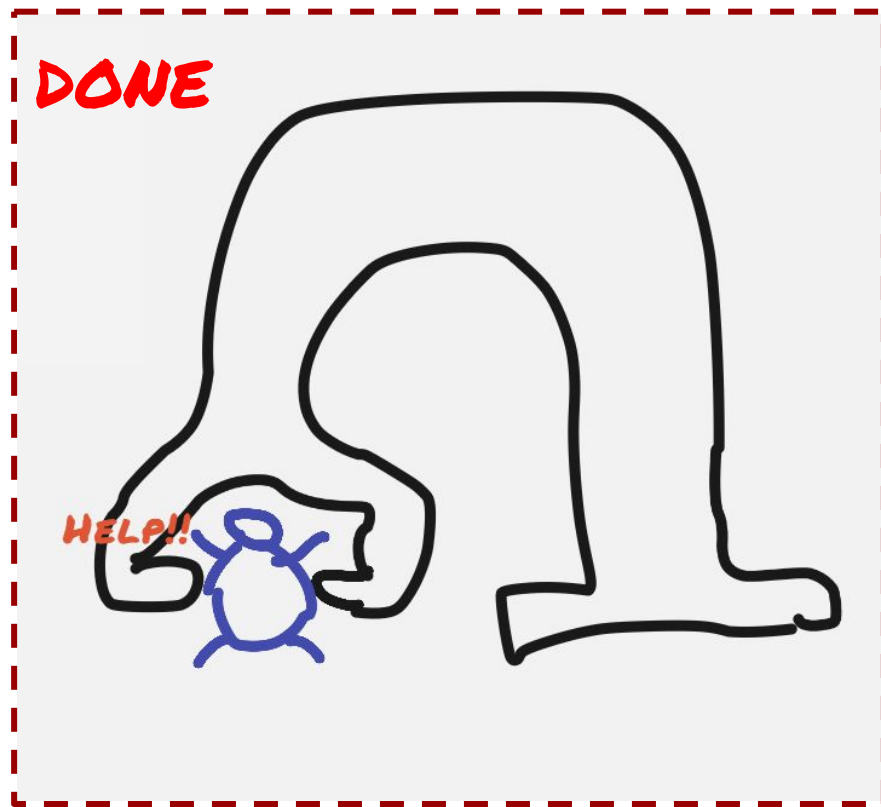# Reward for Giant Robotic ARM Of Death - Grabbing

Reward for Giant Robotic ARM Of Death – Grabbing

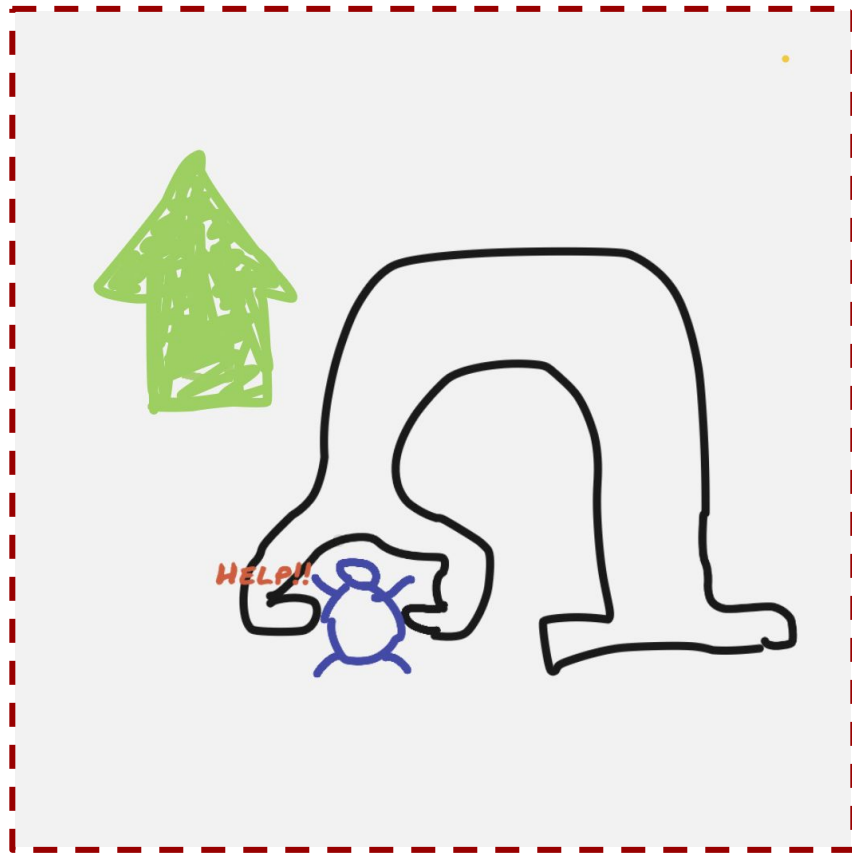$$R_1 = 100\$ \cdot \left(\frac{d_o}{d_a} \right)$$

r_p

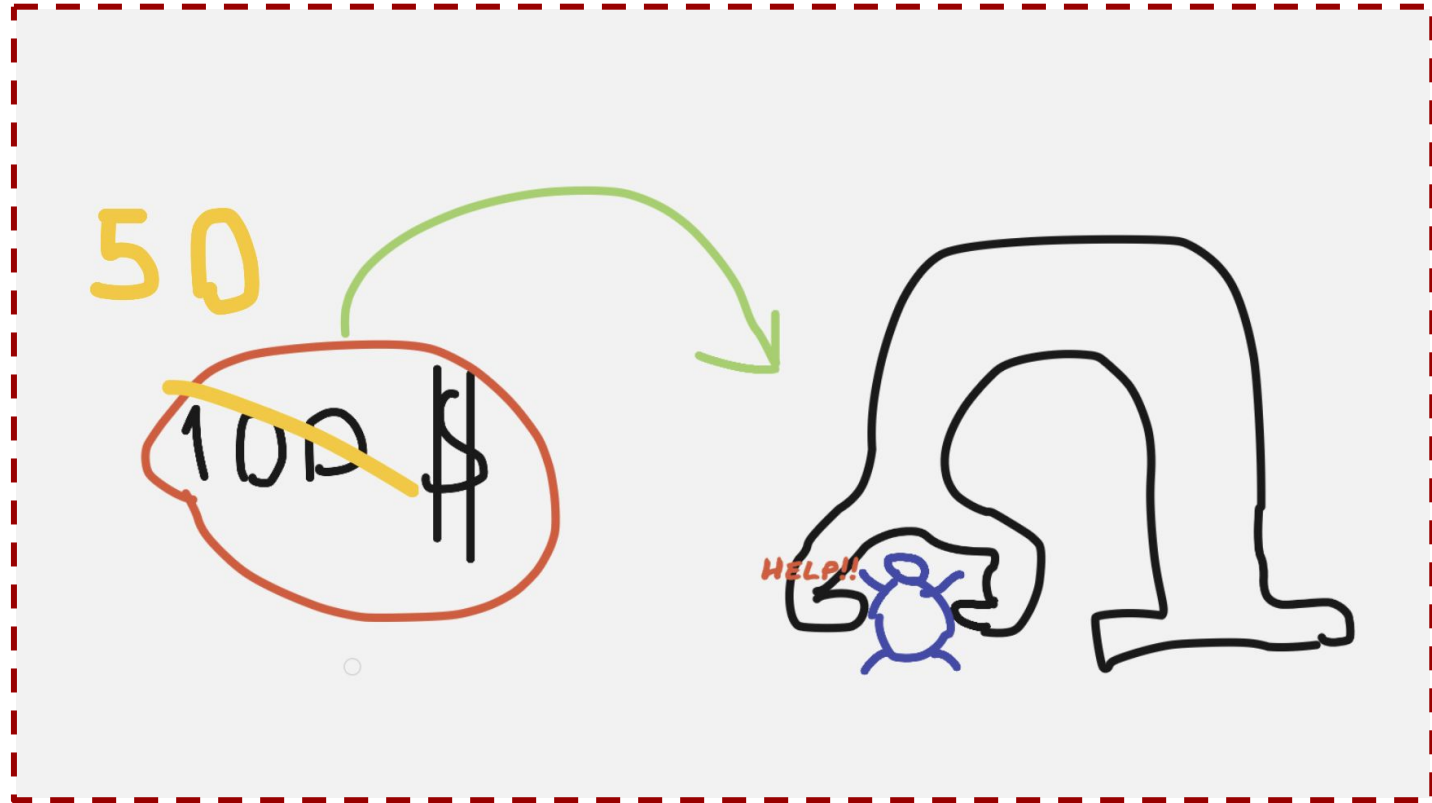# Reward for Giant Robotic ARM Of Death - Grabbing

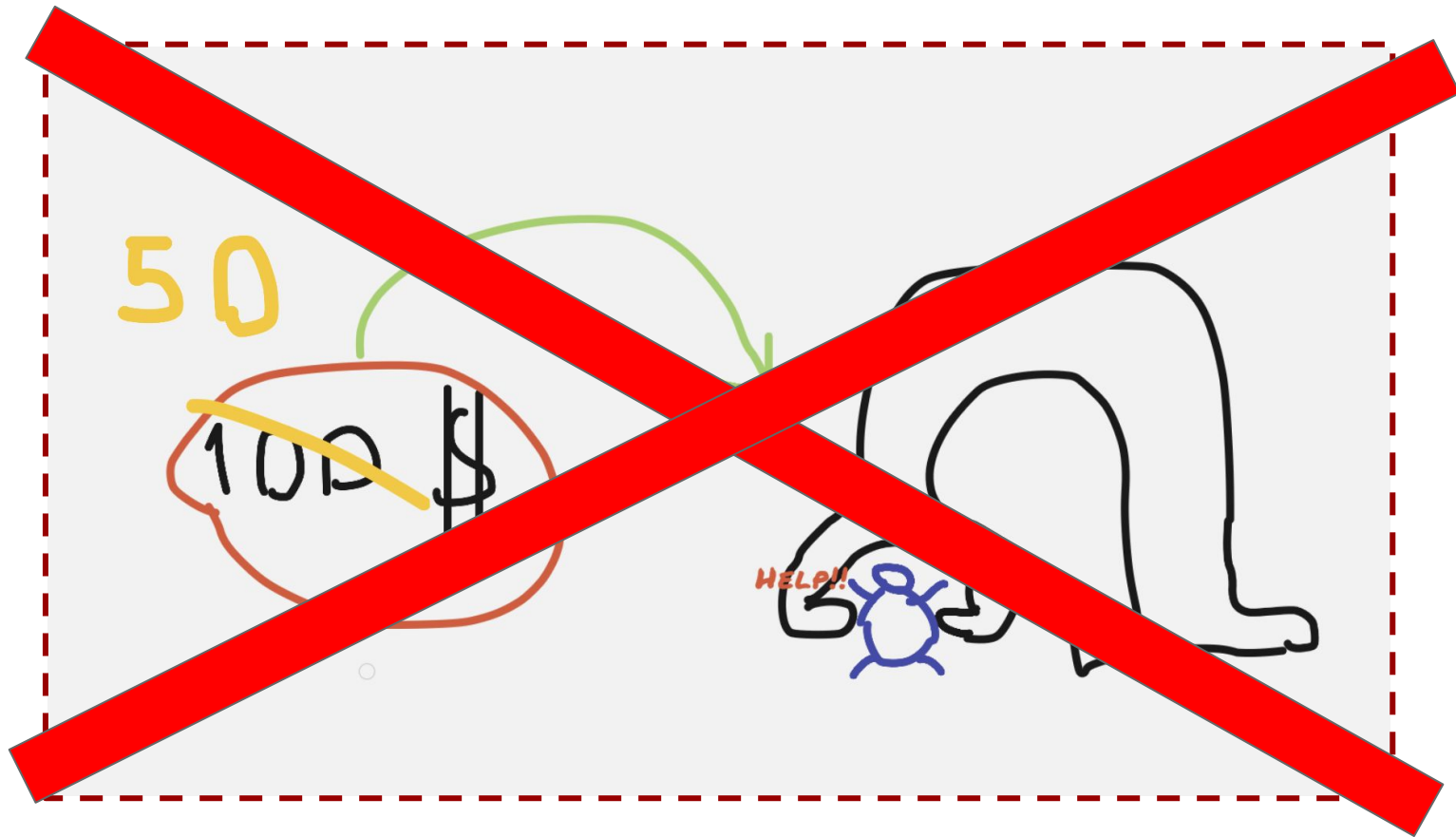# Reward for Giant Robotic ARM Of Death - Lifting

What property of the reward should hold?

Reward for Giant Robotic ARM Of Death - Lifting

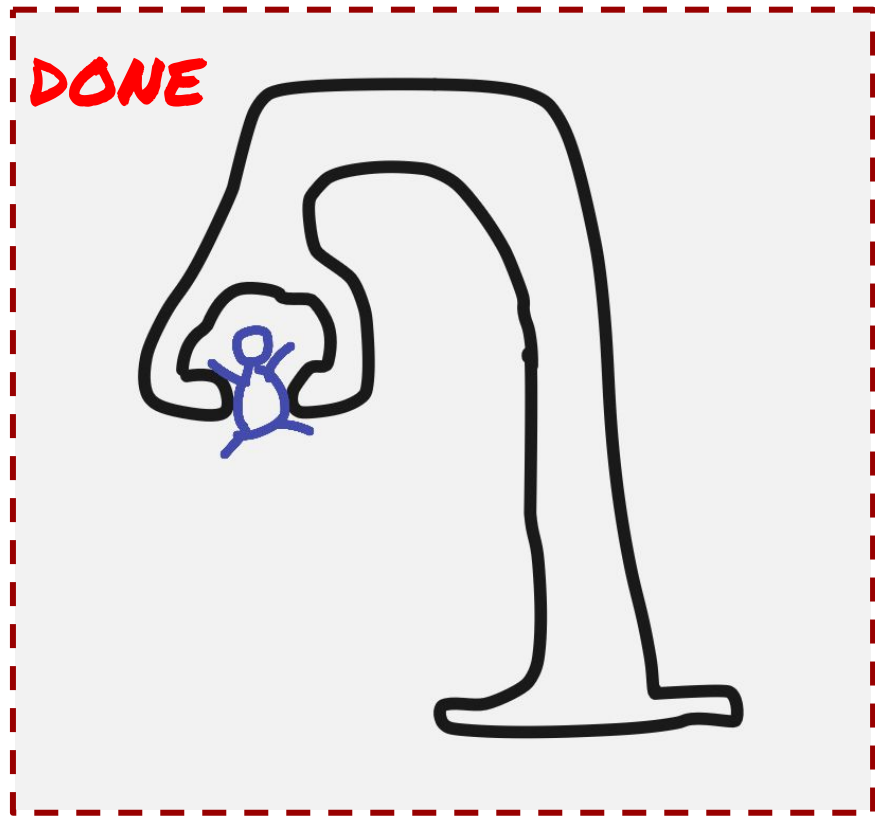# Reward for Giant Robotic ARM Of Death - Lifting

Reward for Death Robotic ARM - Lifting

$$R = r_p + r_e * \left(\frac{h_o}{h_t} \right)$$
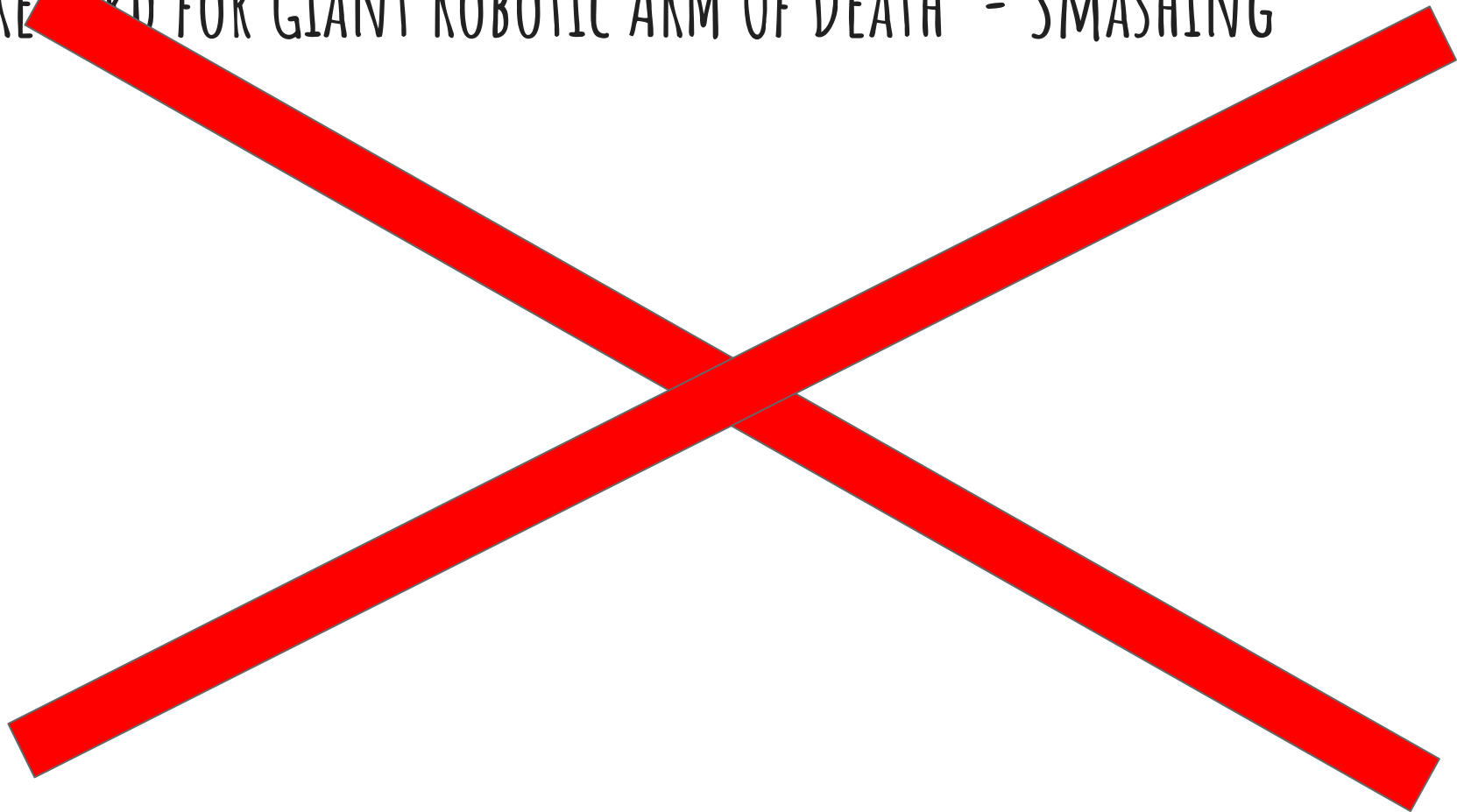
Reward for Giant Robotic ARM Of Death - Lifting

$$R = r_p + r_e * \left(\frac{h_o}{h_t}\right)^2$$

Reward for Giant Robotic ARM Of Death - Lifting

Reward for Giant Robotic ARM Of Death - Smashing

Reward for Giant Robotic ARM Of Death - Smashing

Conclusion

We can shape the reward in time and space