








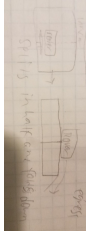

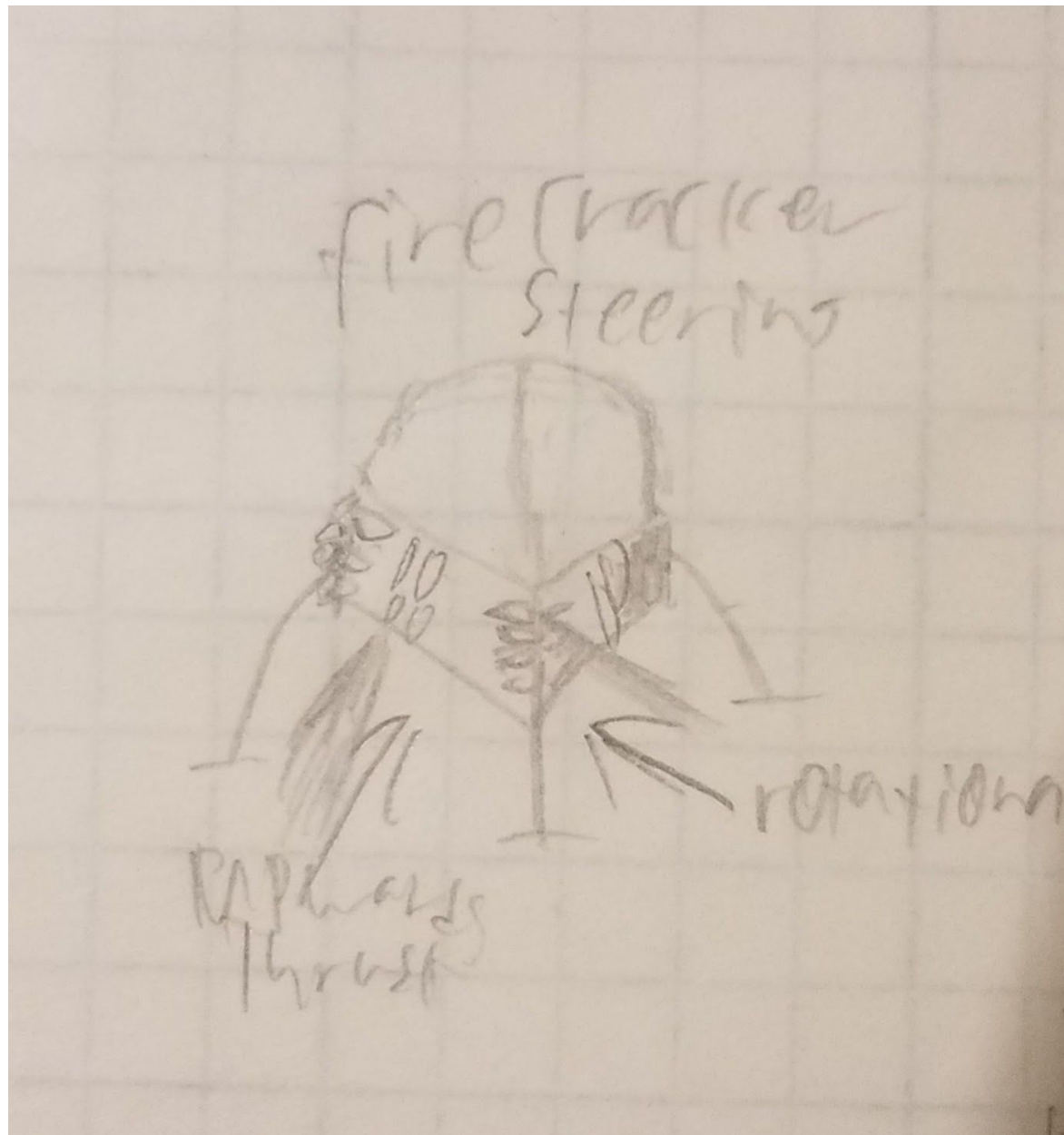


Function	Idea 1	Idea 2	Idea 3	Idea 4	Idea 5	Idea 6	Idea 7	Idea 8	Idea 9	Idea 10
<b>Provide Maneuvring Apparatus for controlling descent and other navigation functions</b>	Inertial actuators (reaction wheels)	Ion or Hall thrusters	Small RCS thrusters	Many tiny solid rocket motors that act like RCS but ridiculously - firecracker steering 	Thrust vectored small liquid propellant motor(s) 	No guidance, just drop it and hope it doesn't bounce	NERVA thruster for some reason 	Wire guided descent from the orbiter - wires shot out of orbiter 	If Psyche is ferromagnetic, use electromagnets to guide it down 	The orbiter (nearly) touches down and deposits the lander at most a few feet above the surface.
<b>Payload release apparatus (on surface)</b>	Open up like a flower kinda like the old mars landers 	Skycrane to drop rover or payload 	Little spring powered tube that the payload shoots out of	It crumbles or shatters on landing and the payload falls out - Humpty Dumpty method	A little door with a ramp for the rover to crawl down 	It drops the payload as it lands but not like the skycrane, it just lands and then the payload	The payload is held in by electromagnets. After landing, the rover is released	The lander splits in half, releasing the rover	The lander gently lowers the rover to the surface on a suspended platform	The lander is the rover! Now it has to move on the surface somehow!

						falls out				
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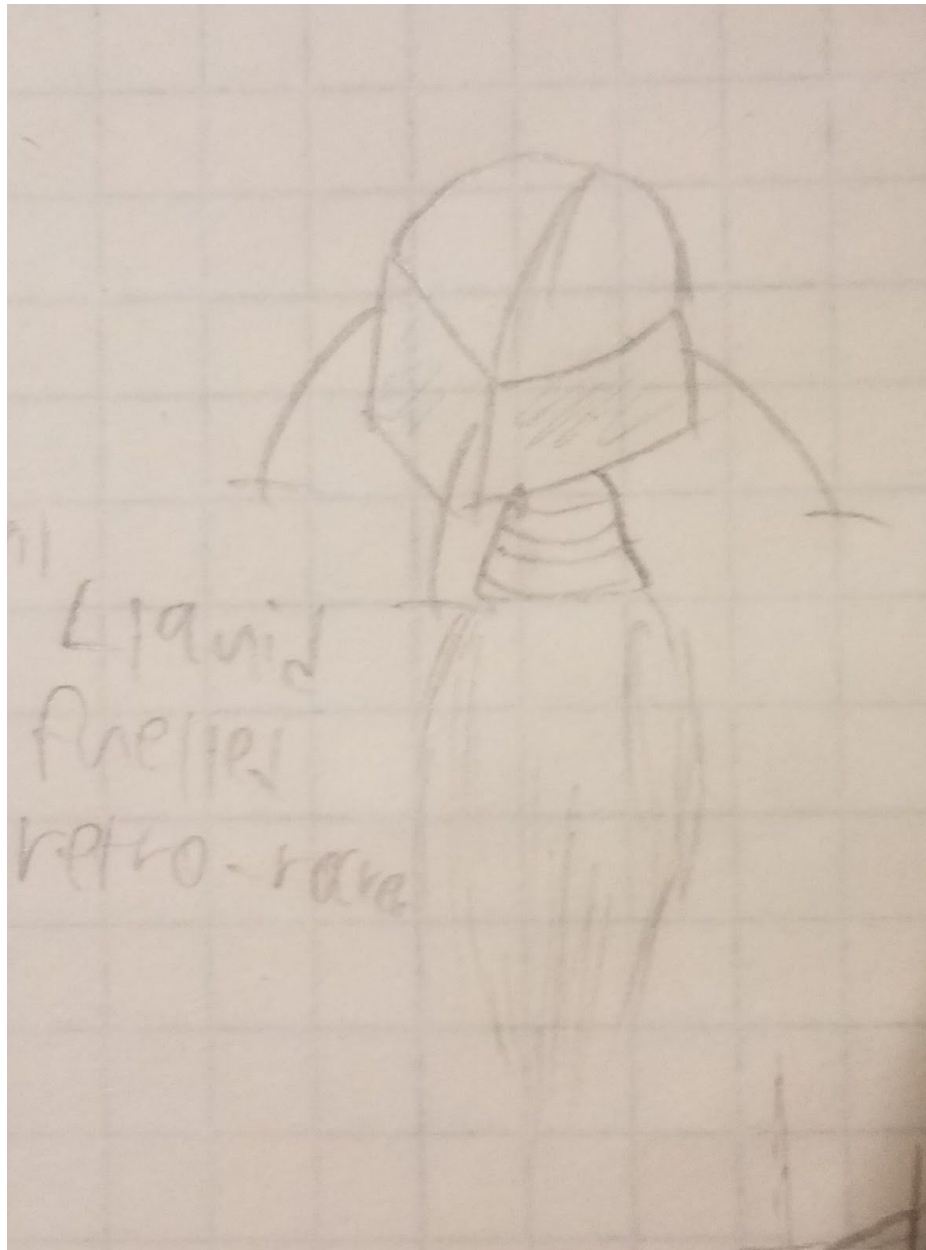
1. **Provide Maneuvering Apparatus for controlling descent and other navigation functions**

- 1.1. Inertial actuators (reaction wheels)
- 1.2. Ion or Hall thrusters
- 1.3. Small RCS thrusters
- 1.4. Many tiny solid rocket motors that act like RCS but ridiculously - firecracker steering



1.4.1.

1.5. Thrust vectored small liquid propellant motor(s)

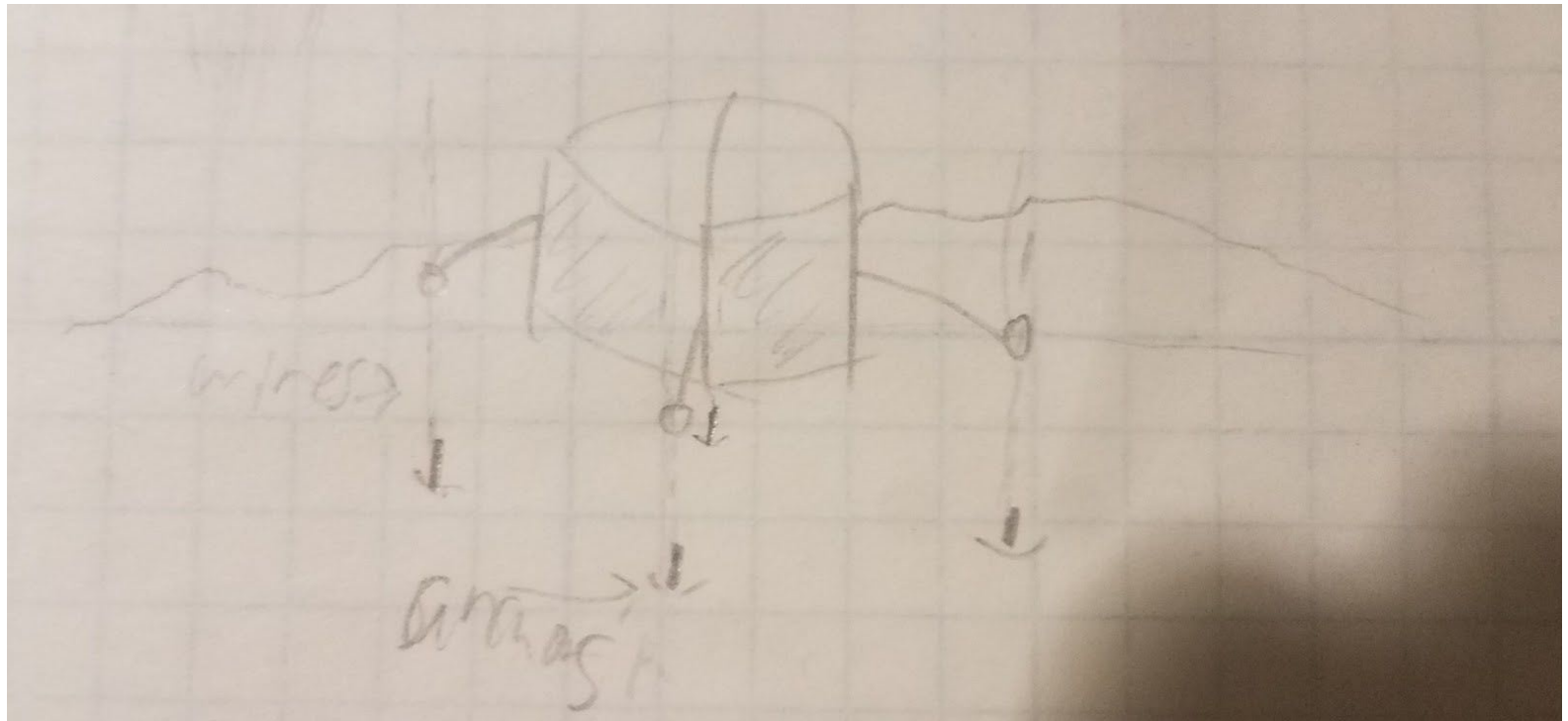


1.5.1.

- 1.6. No guidance, just drop it and hope it doesn't bounce
- 1.7. NERVA thruster for some reason

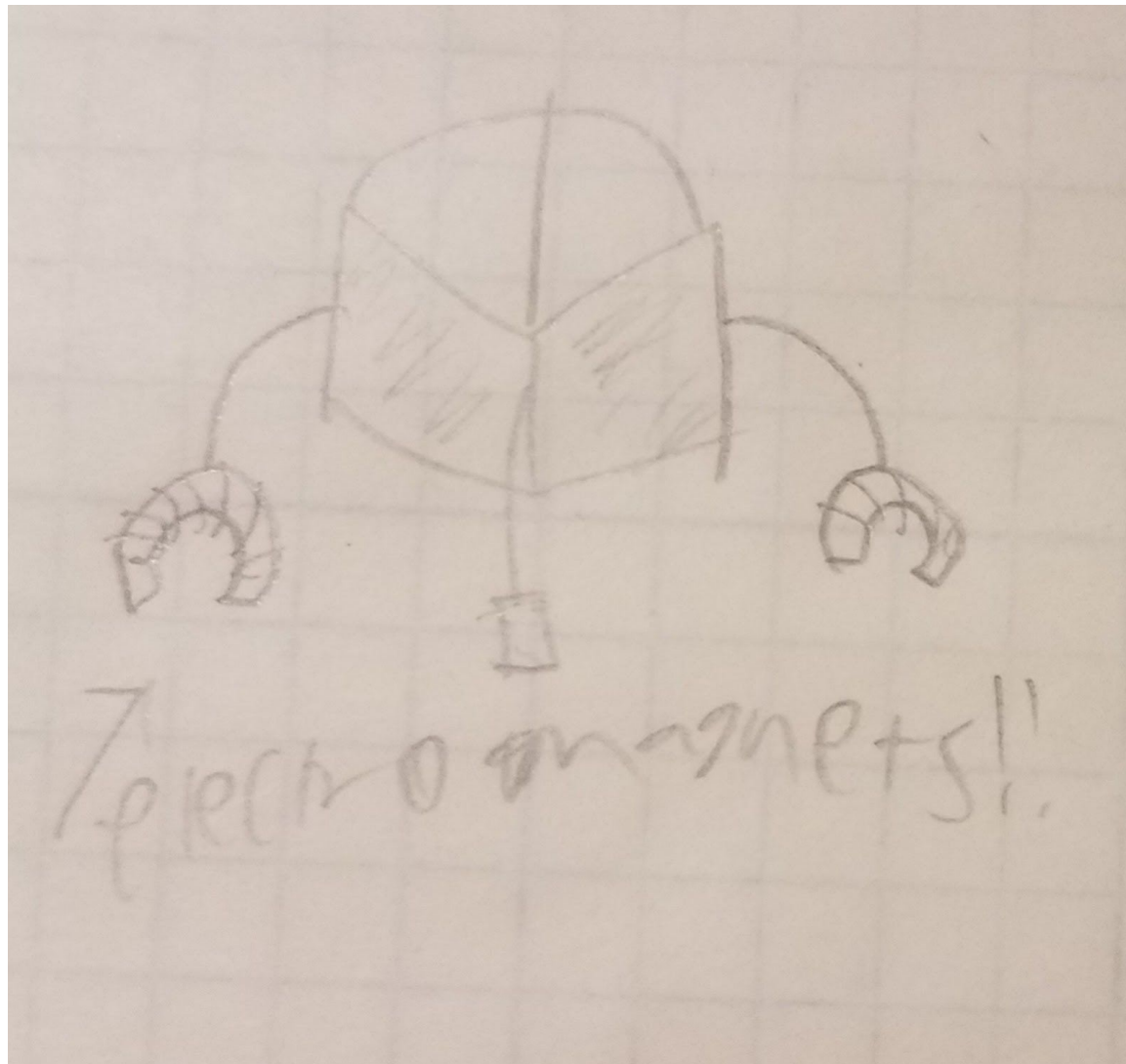


- 1.7.1.
- 1.8. Wire guided descent from the orbiter - wires shot out of orbiter



1.8.1.

1.9. If Psyche is ferromagnetic, use electromagnets to guide it down



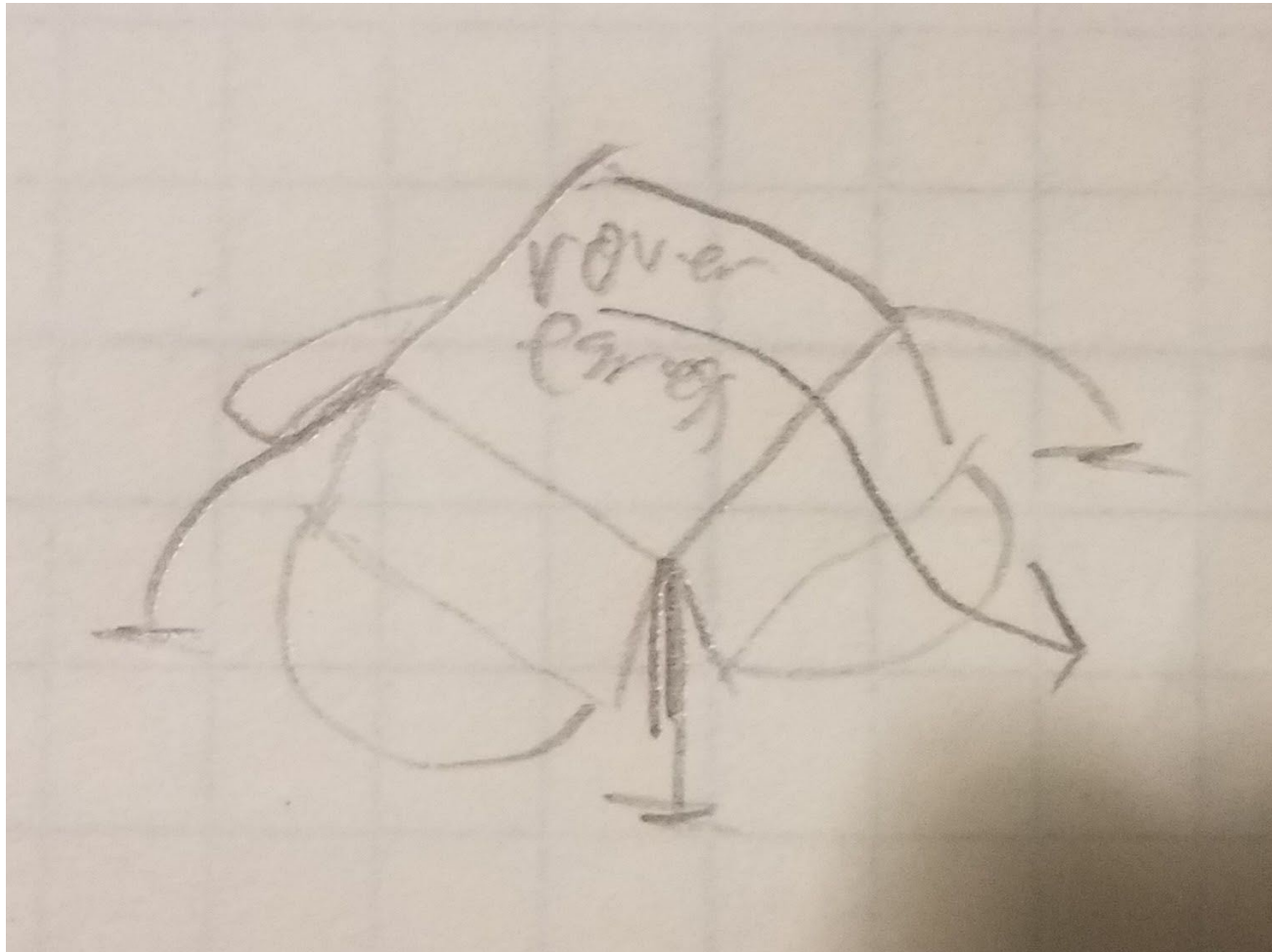
1.9.1.

1.10. The orbiter (nearly) touches down and deposits the lander at most a few feet above the surface.

2. **Payload release apparatus (on surface)**

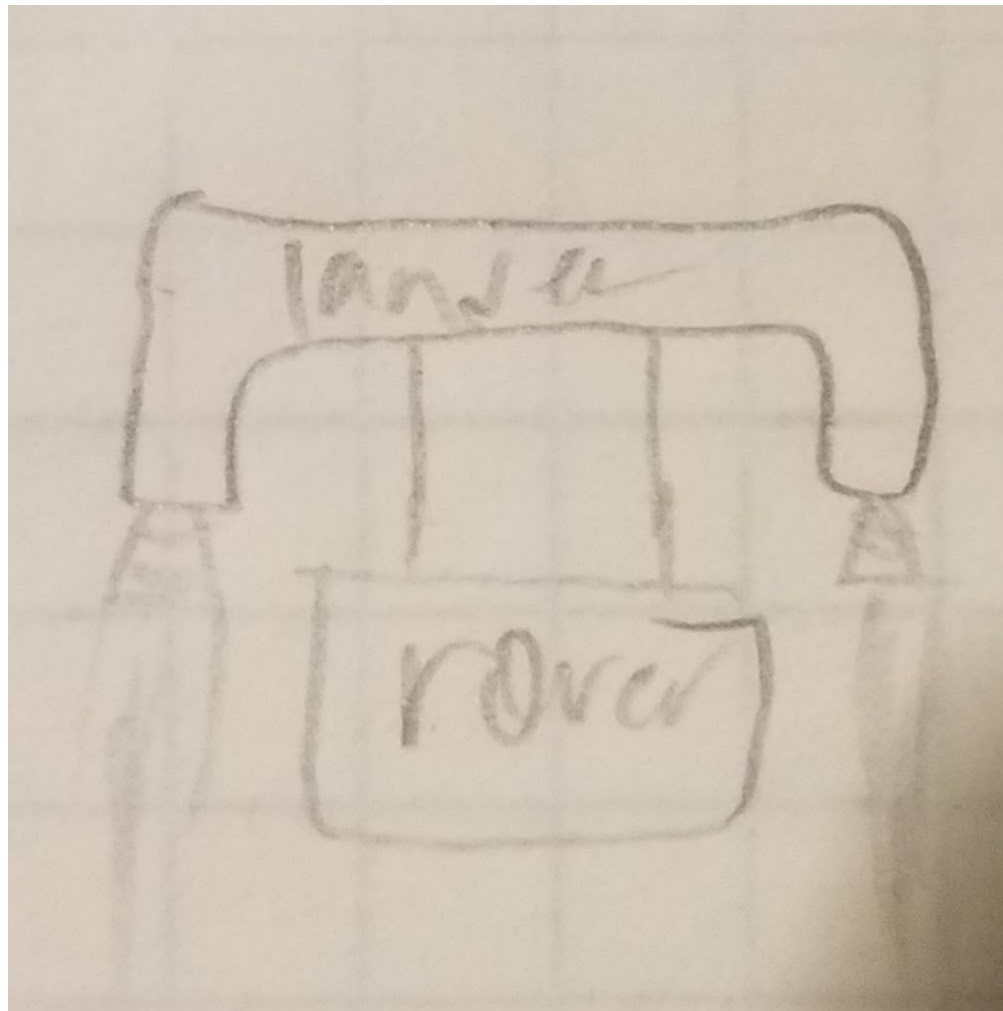
2.1. Open up like a flower kinda like the old mars landers





2.1.1.

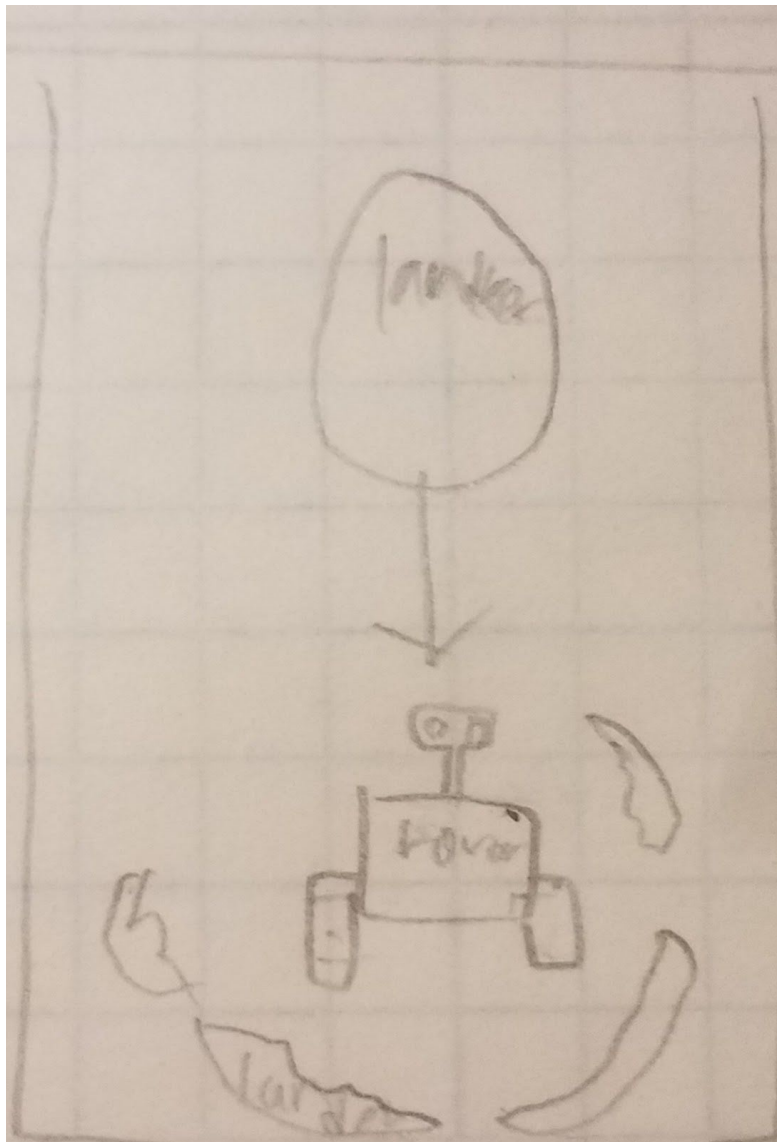
2.2. Skycrane to drop rover or payload



2.2.1.

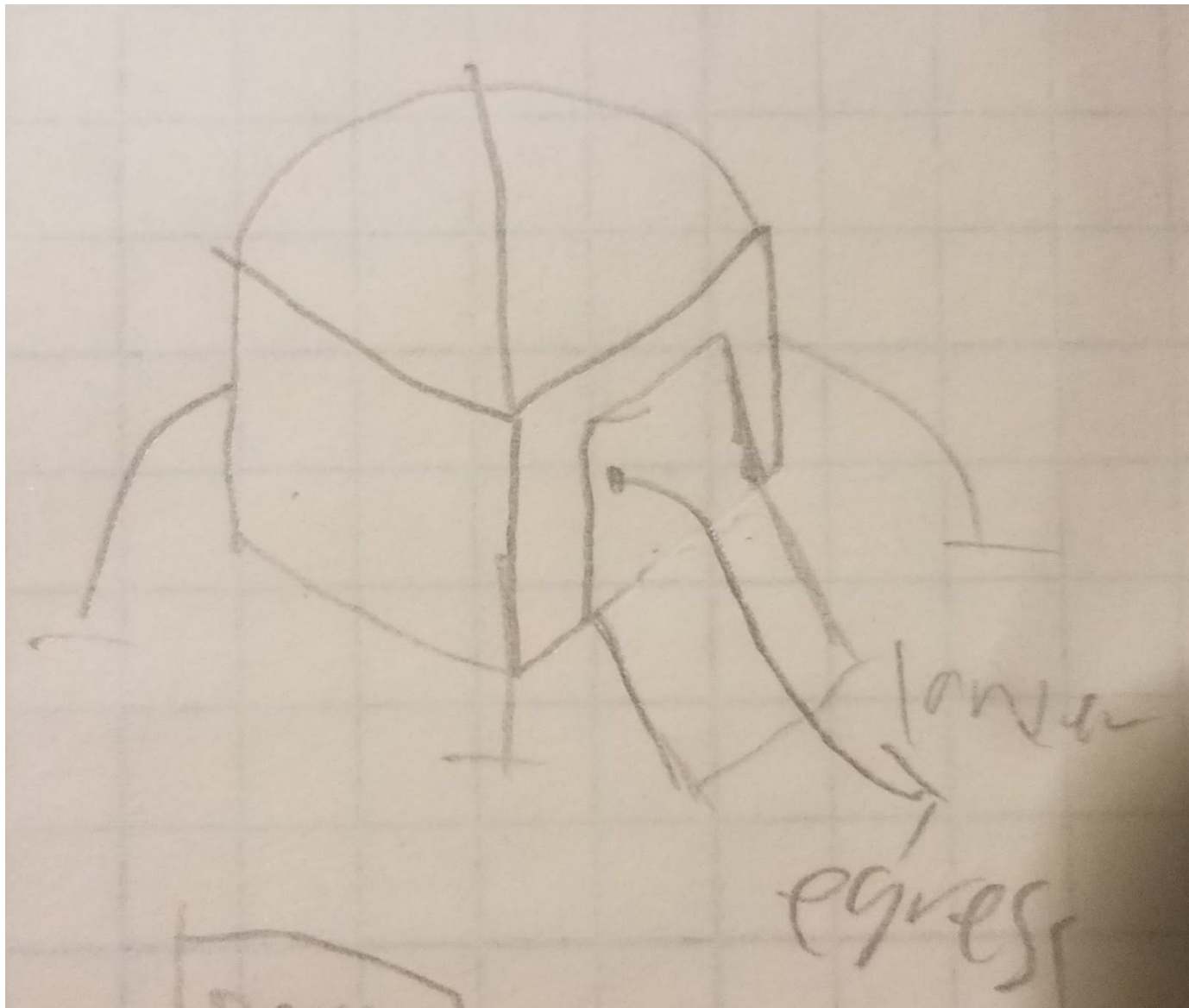
2.3. Little spring powered tube that the payload shoots out of

2.4. It crumbles or shatters on landing and the payload falls out - Humpty Dumpty method



2.4.1.

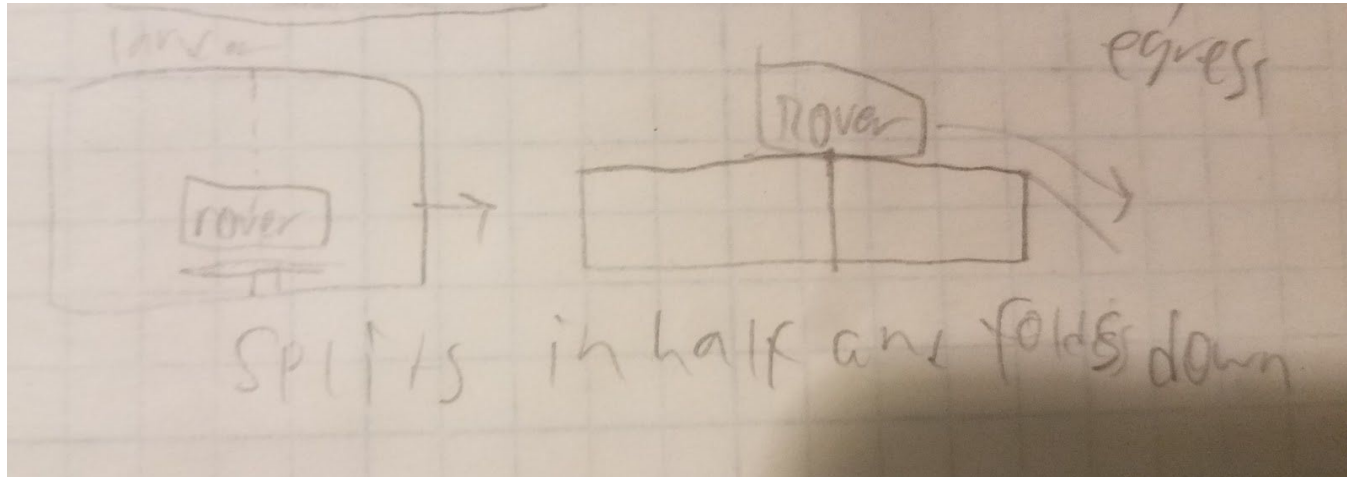
2.5. A little door with a ramp for the rover to crawl down



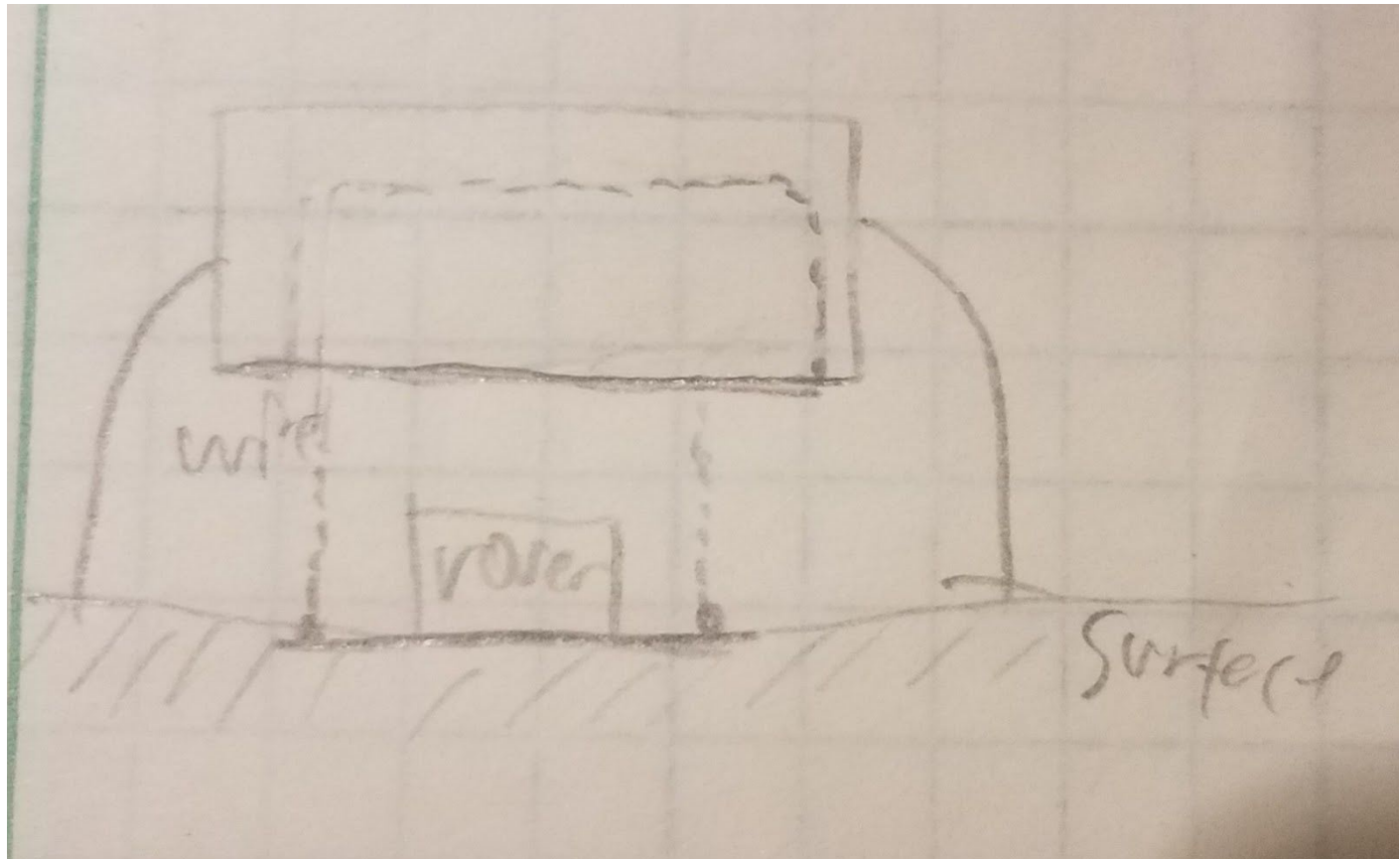
2.5.1.

2.6. It drops the payload as it lands but not like the skycrane, it just lands and then the payload falls out

- 2.7. The payload is held in by electromagnets. After landing, the rover is released
- 2.8. The lander splits in half, releasing the rover



- 2.8.1.
- 2.9. The lander gently lowers the rover to the surface on a suspended platform



2.9.1.

2.10. The lander is the rover! Now it has to move on the surface somehow!