


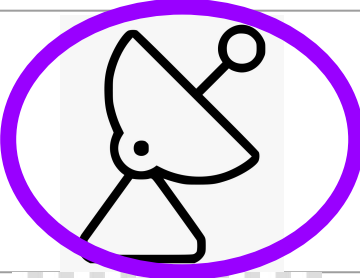

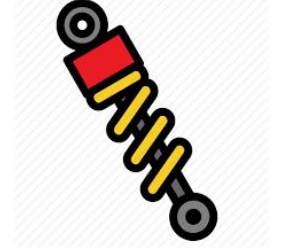






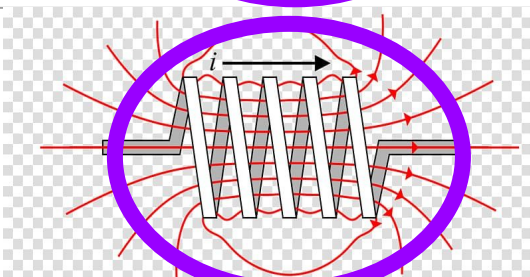


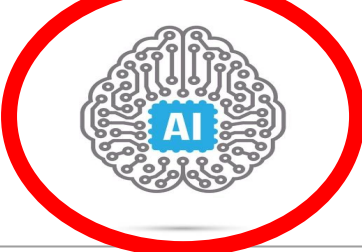
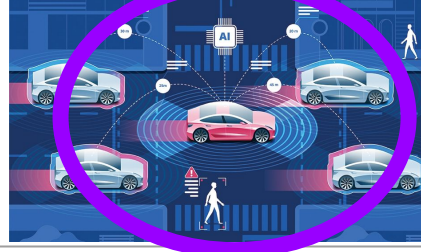
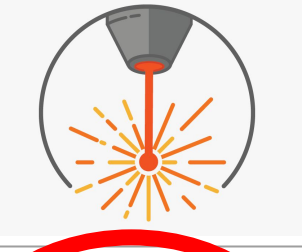
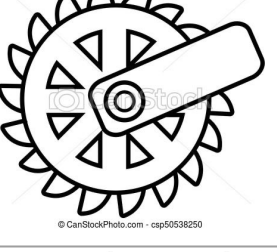









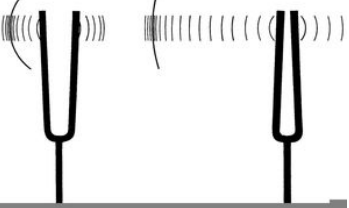

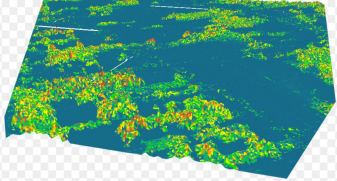


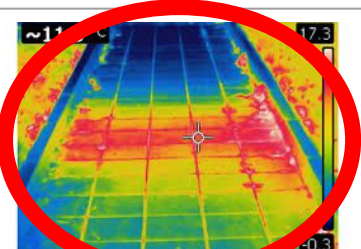
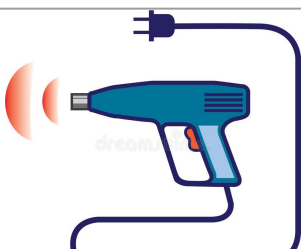
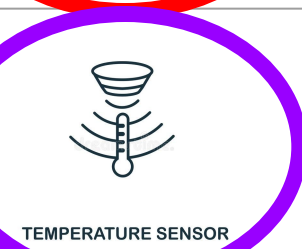
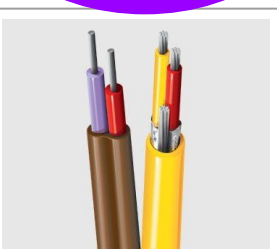
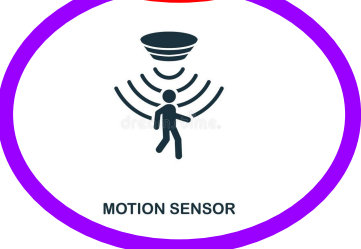
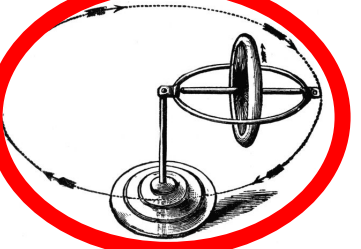
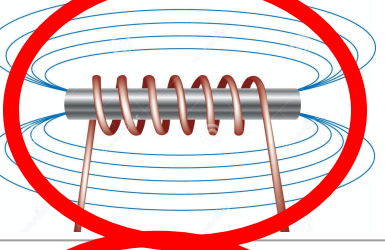
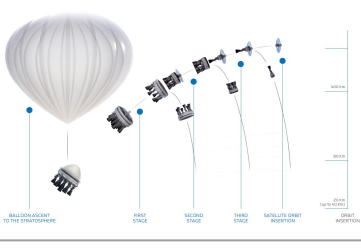
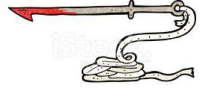
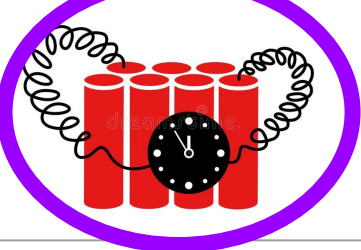




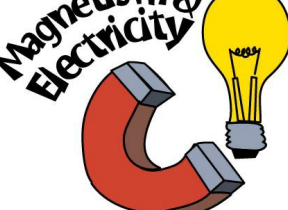



<div>Solutions</div> <div>Sub Functions</div>	1	2	3	4	5	6	7	8
Communicate with Earth								
Protect Payload from Impact								
Protect Payload from Electrical Charges								
Avoid Collisions								
Sever Mechanical / Electrical Connections								
Detect Safe Landing Site (Texture & Gradient)								
Detect Surface Temperature								
Measure Position and Velocity								
Landing Equipment								
Releasing Payload								

Purple Method: X-BAND communication is used by current NASA missions, Use electrostatic magnets to hold payload in place as this method can be tested and validated,, Electromagnetic protection field, LiDAR sensors used in many modern cars for safety purposes, High temperature can help in melting mechanical connections,, LiDAR sensors, Drop Temperature Sensors and communicate results back to spacecraft, Motion Sensors are frequently used in modern electronics and are reliable, Small explosives to open up landing equipment, Ramp to release payload as used in many prior space missions.

Red Method: RF communication has been used previously and is one of the best method, Metal Shield is strong and durable, Faraday Cage for protection against electrical charges as the physics is validated, Artificial Intelligence tested by many car manufacturers and can be very fast, Pin Joint to detach mechanical connections, Satellite Imagery Analysis has previously been used and is reliable, Thermal Imaging with advanced equipment available in market, Gyroscope measurements reliable and required for other mission components so will already be in spacecraft, Electromagnets for landing equipment, Skycrane method used for Mars mission showed success