


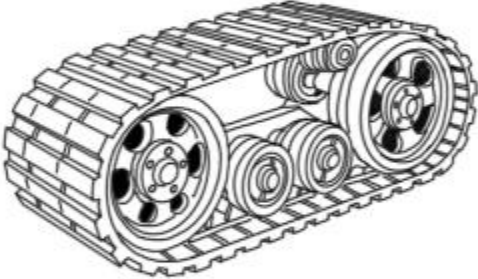
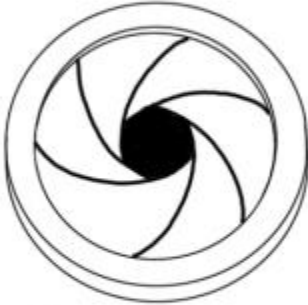
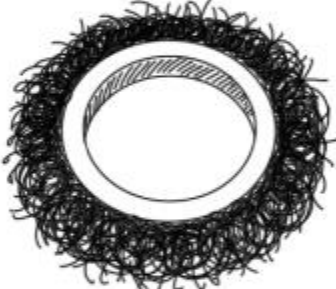
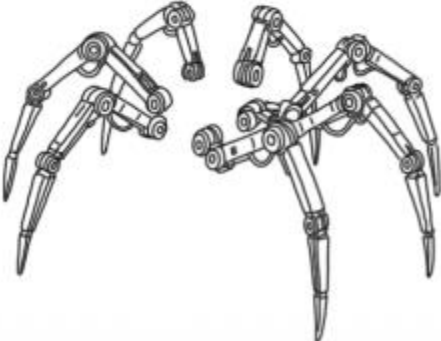

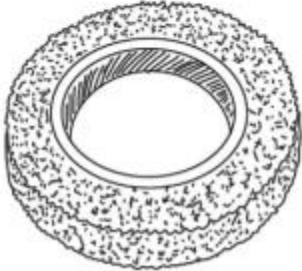
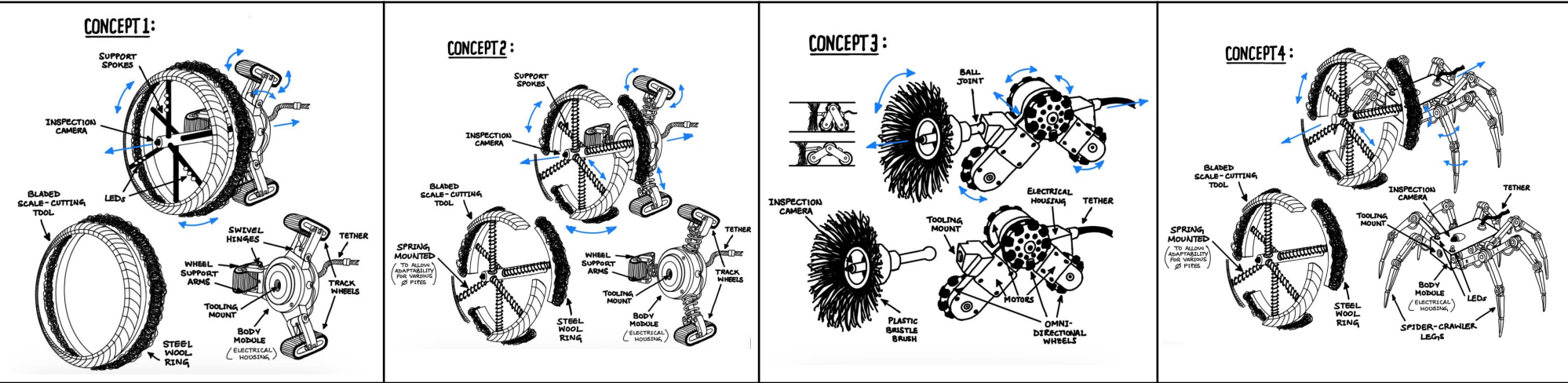


OPTION	MOVEMENT	SIZING	CLEANING
①	 <p>OMNI-DIRECTIONAL WHEELS</p>	 <p>GEAR-LINKAGE MECHANISM</p>	 <p>PLASTIC BRISTLES</p>
②	 <p>TRACK WHEELS</p>	 <p>SHUTTER MECHANISM</p>	 <p>STEEL WOOL</p>
③	 <p>SPIDER LEGS</p>	 <p>SPRING LOADED</p>	 <p>SANDING ATTACHMENT</p>

Criteria



Track Wheels + Gear-Linkage + Steel Wood

Track wheels are capable of threading rough terrain within the pipe, driven and connected using gear/linkages to adapt to various diameter pipes, and equipped with a steel wool rotatory tool for scrubbing debris.

Track Wheels + Spring-Loaded + Steel Wood

Track wheels are capable of threading rough terrain within the pipe, connected using springs to adapt to various diameter pipes, and equipped with a steel wool rotatory tool for scrubbing debris.

Omni-Directional Wheels + Gear-Linkage Mechanism + Plastic Bristles

Omni wheels allow the robot to be more mobile and navigate bends more efficiently, driven and connected using gear/linkages to adapt to various diameter pipes, and equipped with a plastic bristle rotatory tool for scrubbing debris without risk of damaging the pipe lining.

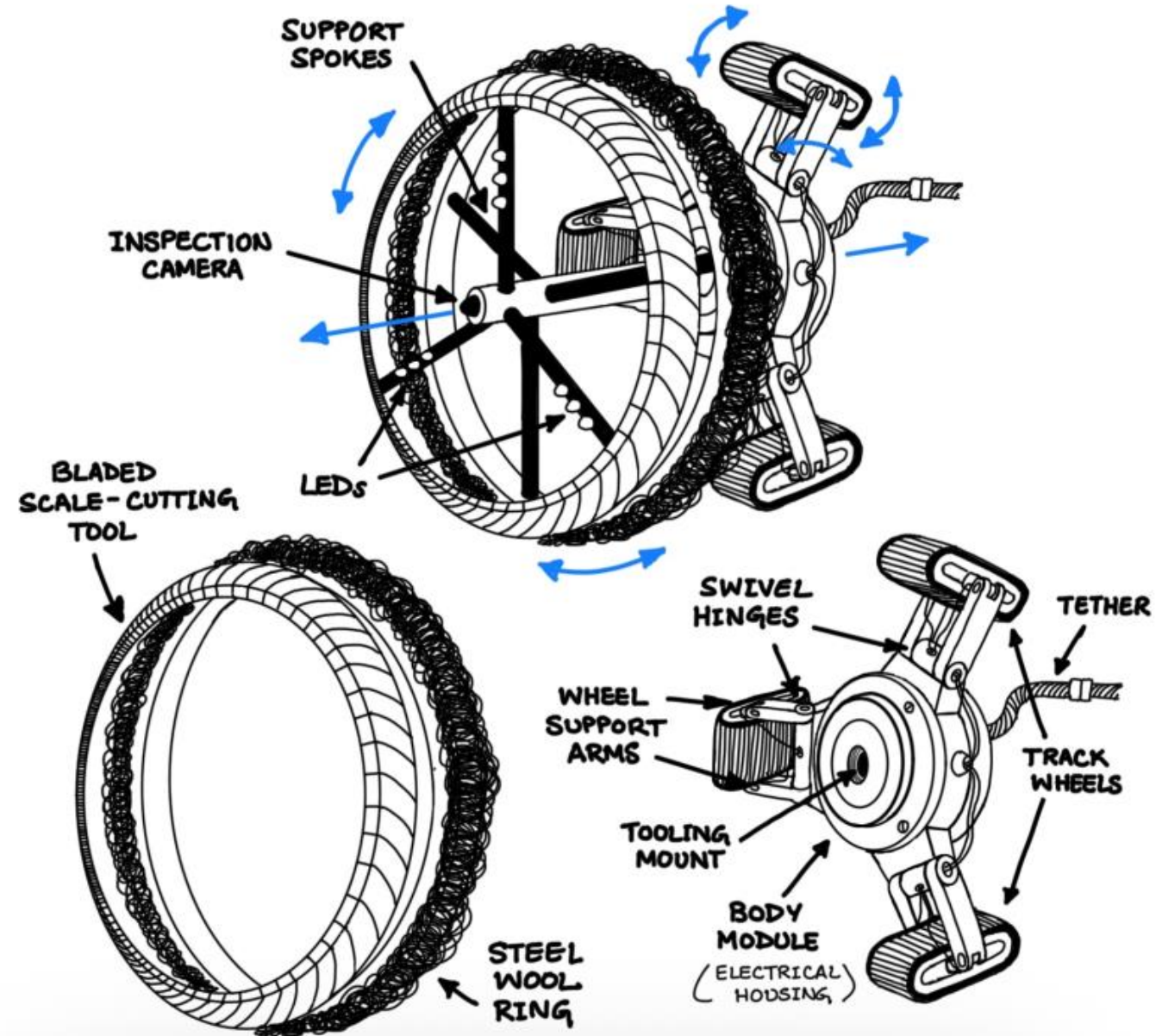
Spider Legs + Gear-Linkage + Steel Wood

Spider legs are capable of threading rough terrain while maintaining agility within the pipe, connected using gear/linkages to adapt to various diameter pipes, and equipped with a steel wool rotatory tool for scrubbing debris.

Description

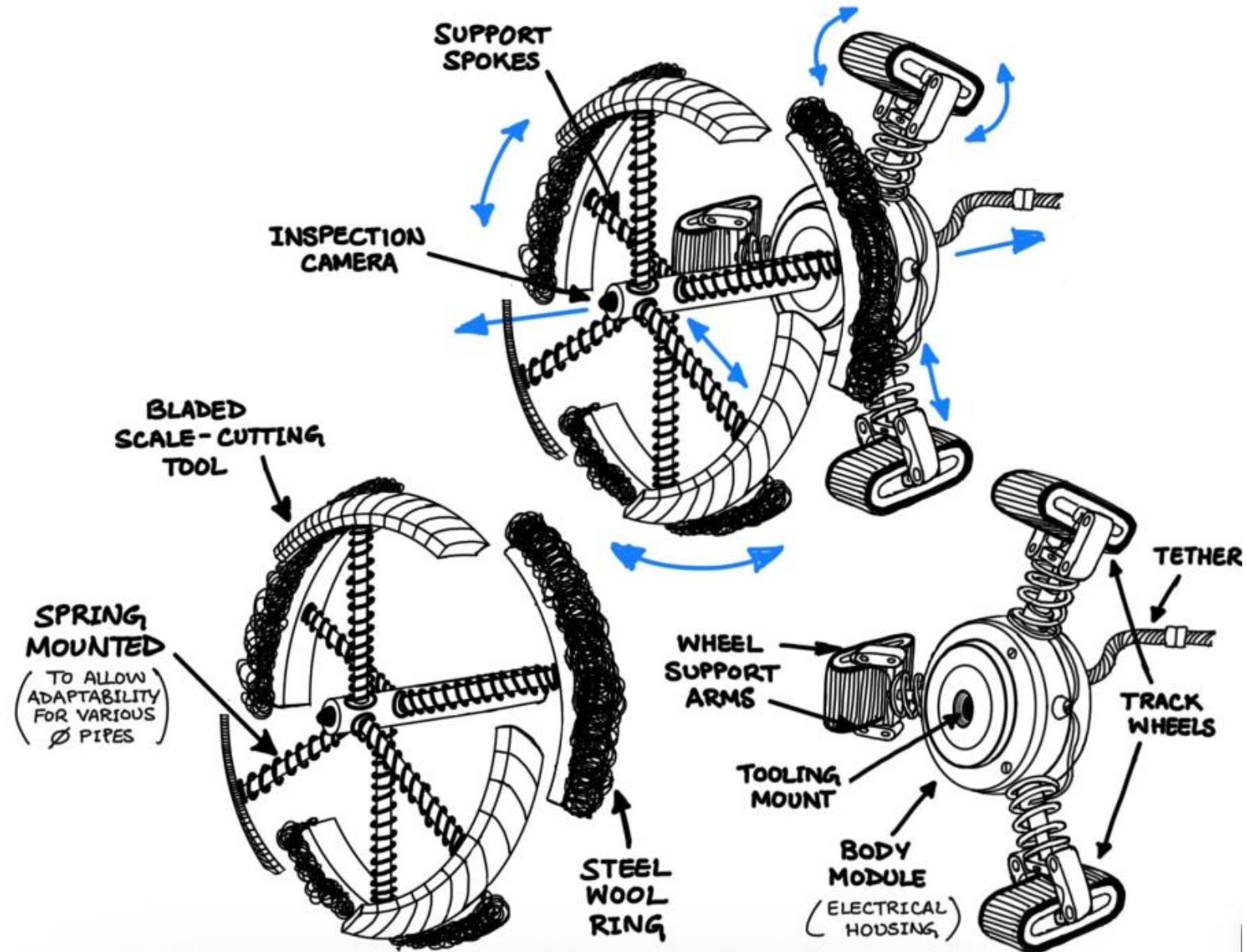
Track Wheels + Gear-Linkage + Steel Wood

CONCEPT 1:



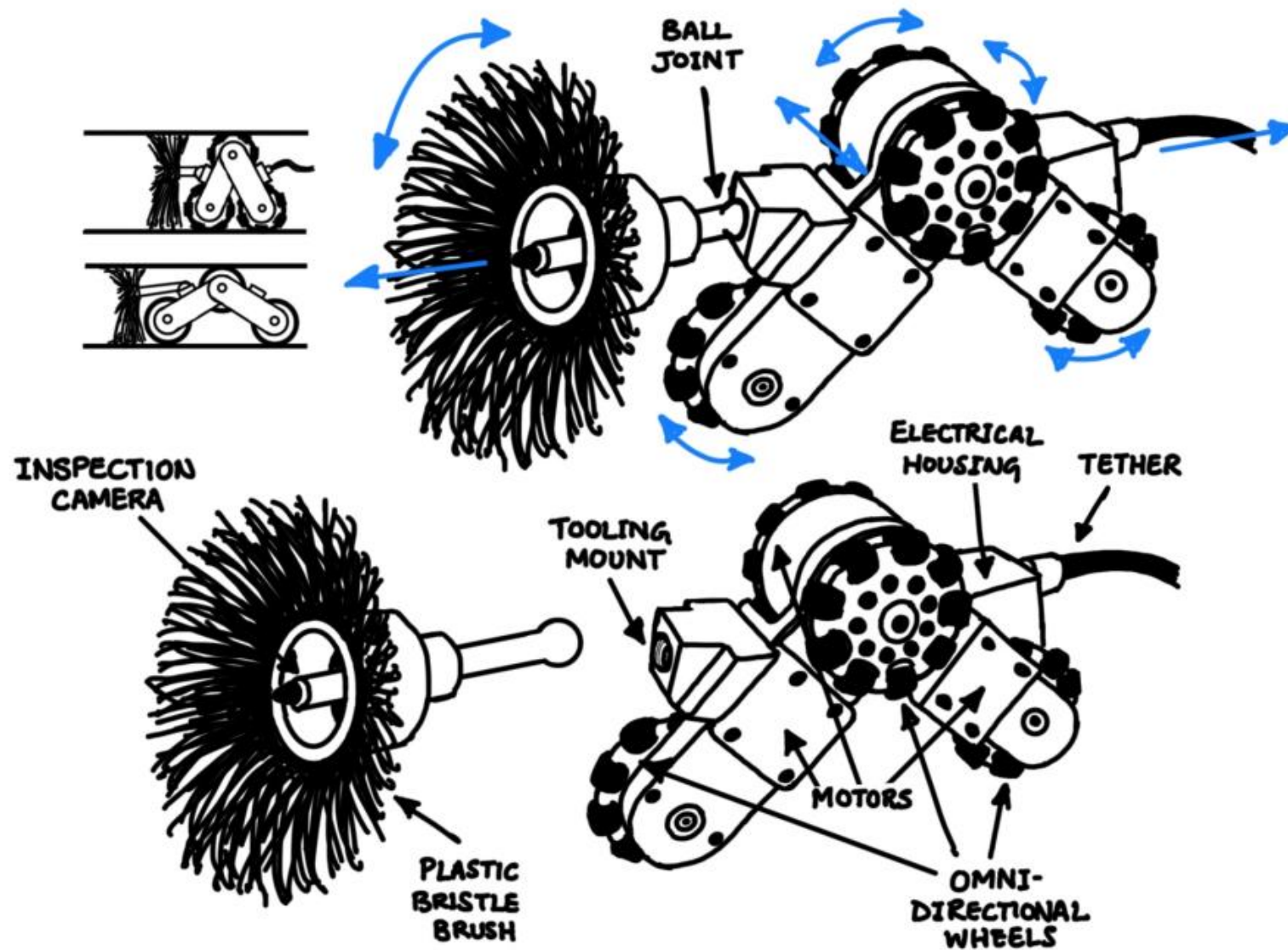
Track Wheels + Spring-Loaded + Steel Wool

CONCEPT 2 :



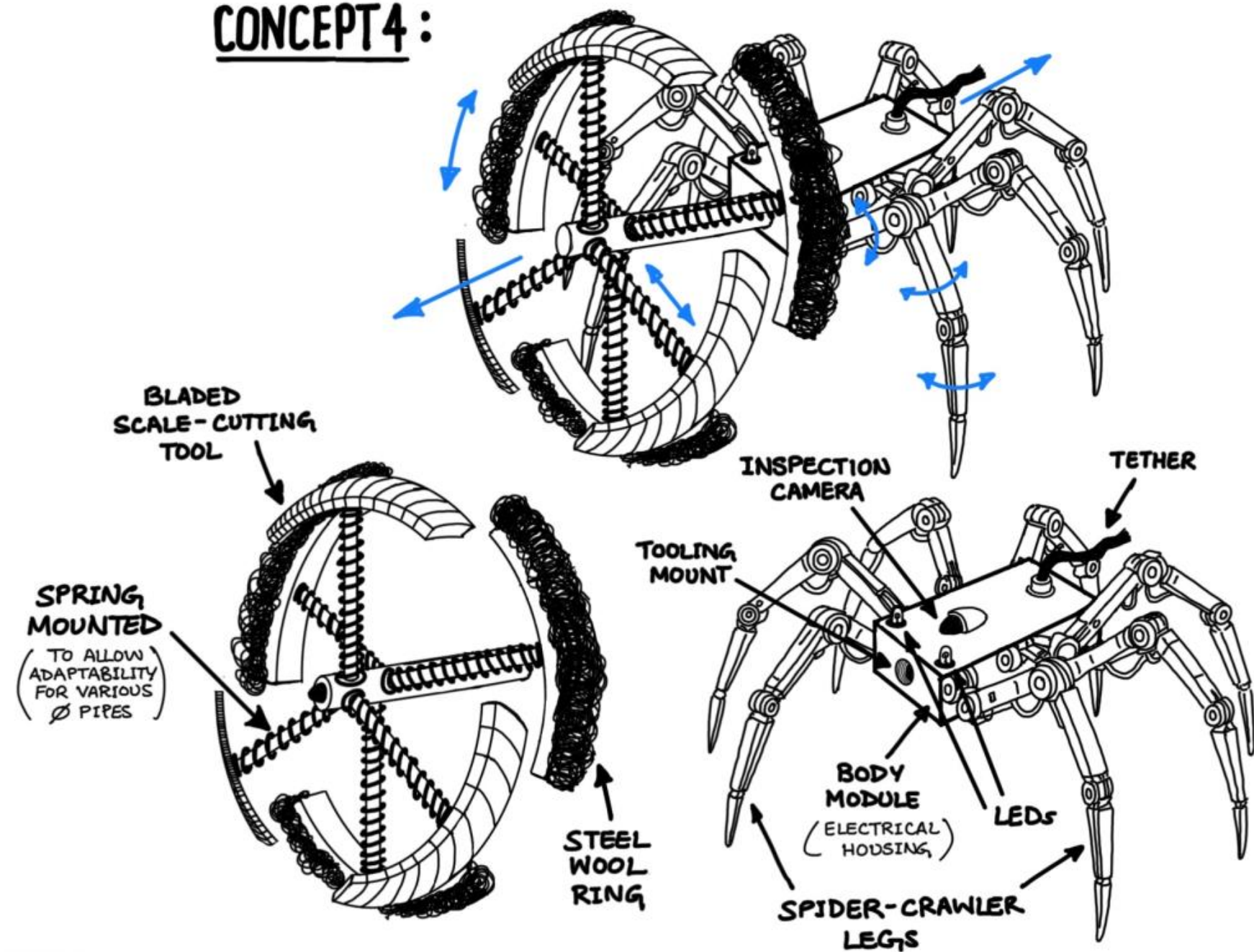
Omni-Directional Wheels + Gear-Linkage Mechanism + Plastic Bristles

CONCEPT 3 :



Spider Legs + Gear-Linkage + Steel Wood

CONCEPT 4 :



Criteria	C1	C2	C3	C4
Size	3	1	4	2
Complexity	2	4	3	1
Mobility	4	2	3	1
Cost	3	4	1	2
Waterproofing	3	2	4	1
Mass	1	3	2	4
Speed	2	1	4	3
Durability	4	3	2	1
Precision	4	3	1	2
TOTAL	26	23	24	17