Mechanics						
Base movement						
Base movement forward	4 wheels	2 long tracks	4 short tracks	1x 360° wheel and 2 short tracks at the back		
Precision	good	perfect	perfect	moderate		
Rotation of the base	4 wheels	2 long tracks	4 short tracks	1x 360° wheel and 2 tracks at the back		
Range of movement	rotation problematic	if used wiith two different motors we can obtain 360° rotation	if used wiith two different motors we can obtain 360° rotation	if used wiith two different motors we can obtain 360° rotation		
Independent movement of left and right axis	4 weels both axels	2 long tracks	4 short tracks	1x 360° weel and 2 tracks at the back	4 weels back axle	4 wheels feront axle
Position of axels used	front and back	left and right	left and right	2 axles left and right on tracks	back	front
Note:	Tracks are the best solutions as they can be rigidly connected and still provide excelent manuverablility .					
Powering & moving the robot						
Motor	Lego motor	step motor	DC brush motor	servo motor		
Ease of implementation to the build	easy	requires custom mount	requires custom mount	requires custom mount		
Crytiria (price [zł])	139zł	30zł	24zł	29zł		
Note:	Although the most expensive lego motors were provided to us so we can skip the cost of them. They are the bast solution as they excel in accuracy and are the easiest to integrate into the structural build of our robot.					
amchanical movement						
Terrain overtaking						
Base movement	4 wheels	2 long tracks	4 rigid tracks	1x 360° weel and 2 tracks at the back	4 tracks but 2 forward with capbility of elevating	
Weight	heavy	very heavy	very heavy	moderate	very heavy	
Complexity of built and programing	hard	easy	moderate	complex	hard	
Speed	fast	moderate	moderate	slow	moderate	
Efectivity in had terain	limited	effective	efective	not efective	very effective	
Note:	4 tracks but 2 forward with capbility of elevating is the best solution as it mot only allows our robot to conquer nerly any kond of terain but aslwo gives it the best mauverability with modetate speed.					
electronics						
Controling motors and sensors						
Micro controler	Arduino Uno	Arduino Mega	Raspberry Pi 4 B	Husarion core 2	fpga	NXT brick
Cost	92	160	200	500	62zł	150
Complexity of built and programing	modeare	moderate	hard	moderate	moderate	easy
Note:	The NXT is the easiest to easily integrate into the robot structure and is fairly simple to program as well.					
Distance estimation						
Sensor	two cameras	ultrasonic	radar	manual control over bluetooth		
Accuracy	fair	good	very good	excelent		
Easy of porgramming	hard	medium	fair	easy		
Note:	Bilding a robot fully out of lego parts with maual control is a best solution as it allows us to focus mainly on a functionality of a robot. Moreover manualy steraing a robot translate to the best presision.					
informatics						
Operating system	Ubuntu Desktop 20.04	Raspian Debian	Windows	Ios	NXT	
Cost	free	free	paid	need to buy mac	free if you already have a brick	
Availability of software	high	high	fair	low	moderate	
Programing language	python	C	C++			
Speed	moderate	very fast	fast			
Note:	Sticking to lego operationg system for NXT and windows for Robotc (C++ language) not only translates to resposivenes of a robot but also is the most efective for theoretical future modifications.					