## 0.1 Morphology chart

Summarizing the considerations in a morphology chart can selecting the options to continue with.

Functions	1	2	3	4	5
Navigation	Lines on the	GPS location	Preprogrammed	Sensor fusion	Bluetooth
$\mathbf{system}$	floor	+ pallet	map	(IMU + GPS)	RTLS
		detection			
Micro	Arduino nano	STM32xx	RaspberryPi	E-ESP32	Option 5
${ m controller}\ /$					
processor					
Pallet	LoadCells	Hall Effect	buttons	Ultrasonic	photoelectric
${f recognition}$					
Coding	Option 1	Option 2	Option 3	Option 4	Option 5
$\operatorname{standard}$					
Mast Stage	Simplex	Duplex	Triplex	Quadriplex	-
Lift solution	Linear	L.A +	Threaded Rod	String&Bearing	Rack&Pineon
	Actuator	RollerChain	+ linear		
			bearings		
Lifting	End stops	Encoder	Stepper	LoadCell	-
$\mathbf{sensing}$	Top&Down		Motors		
Motors	Stepper on	DC-Motors	-	1	-
	Mast	Movement			
Sensors Fork	LoadCell	-	-	-	-
Sensors	Ultrasonic	Infrared	LiDAR	Optical	-
$\mathbf{Body}$	Distance	Sensors		Sensors	
	HC-SR04				
Body design	LCD	Tank tracks	Perry the	Googly Eyes	-
Elements			Forklift		

 $<sup>\ ^{*}</sup>$  Green cells indicates chosen option.