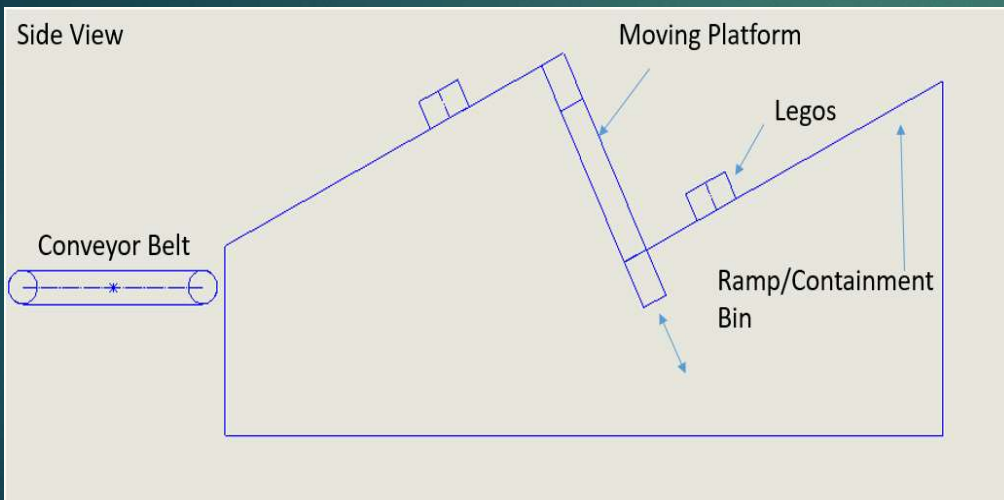


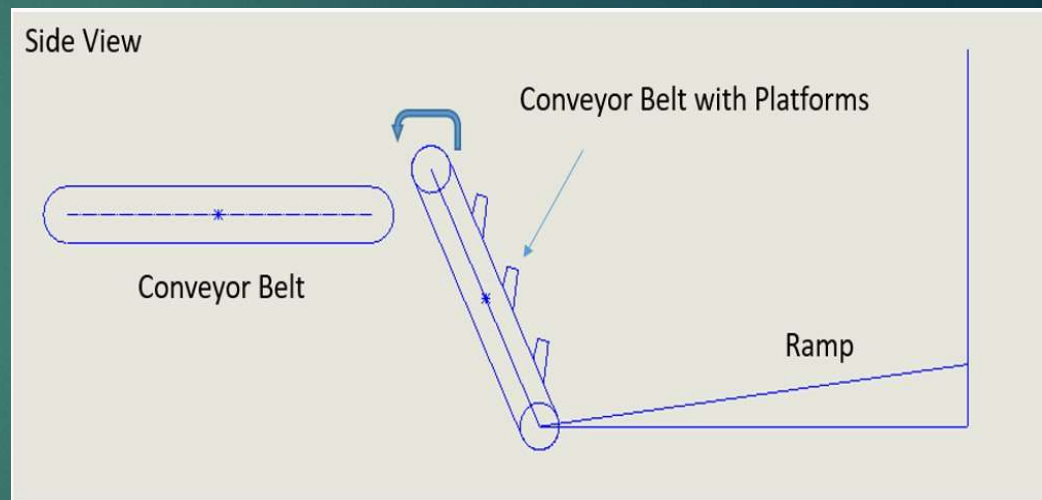
# Concept Generation – Inlet Designs



Lift Platform

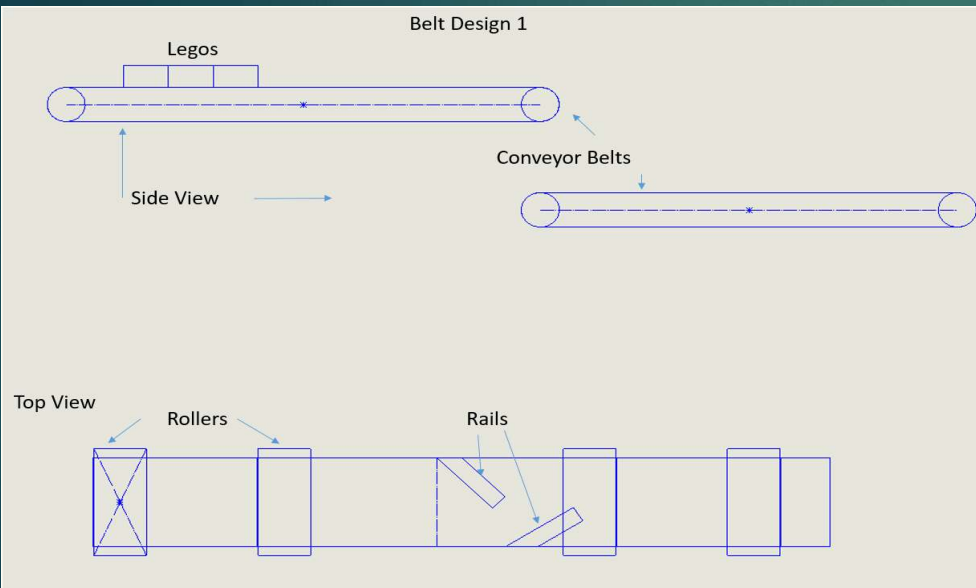


Conveyor Belt with Platforms

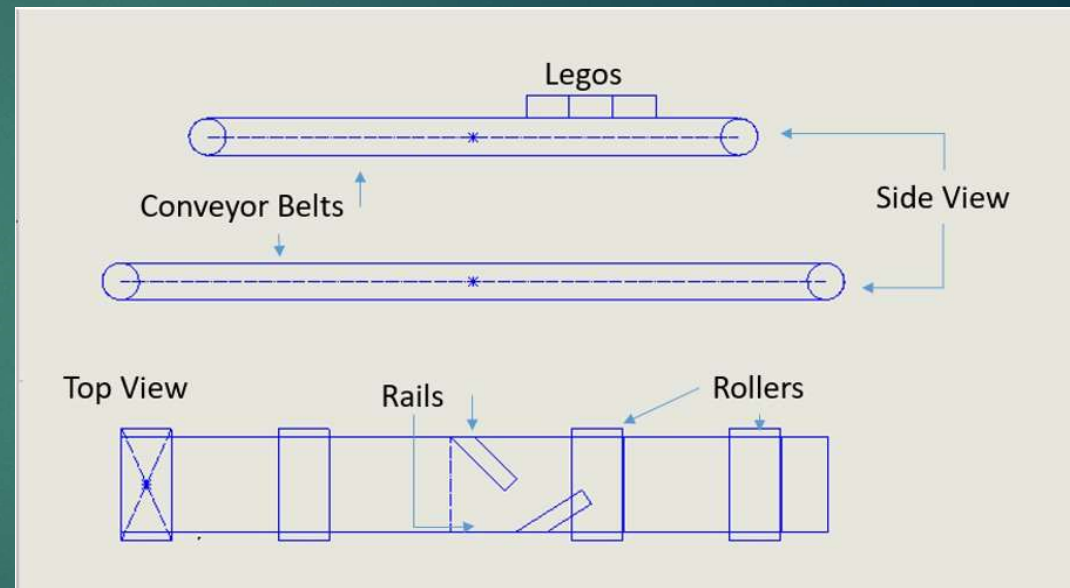


# Concept Generation – Belt Designs

## Simple Conveyor Belt System

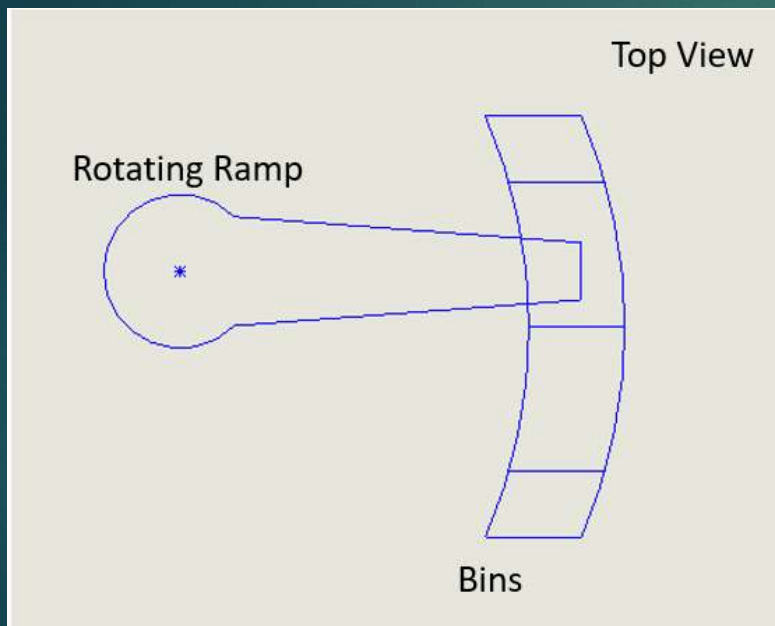


## Compact Conveyor Belt Design

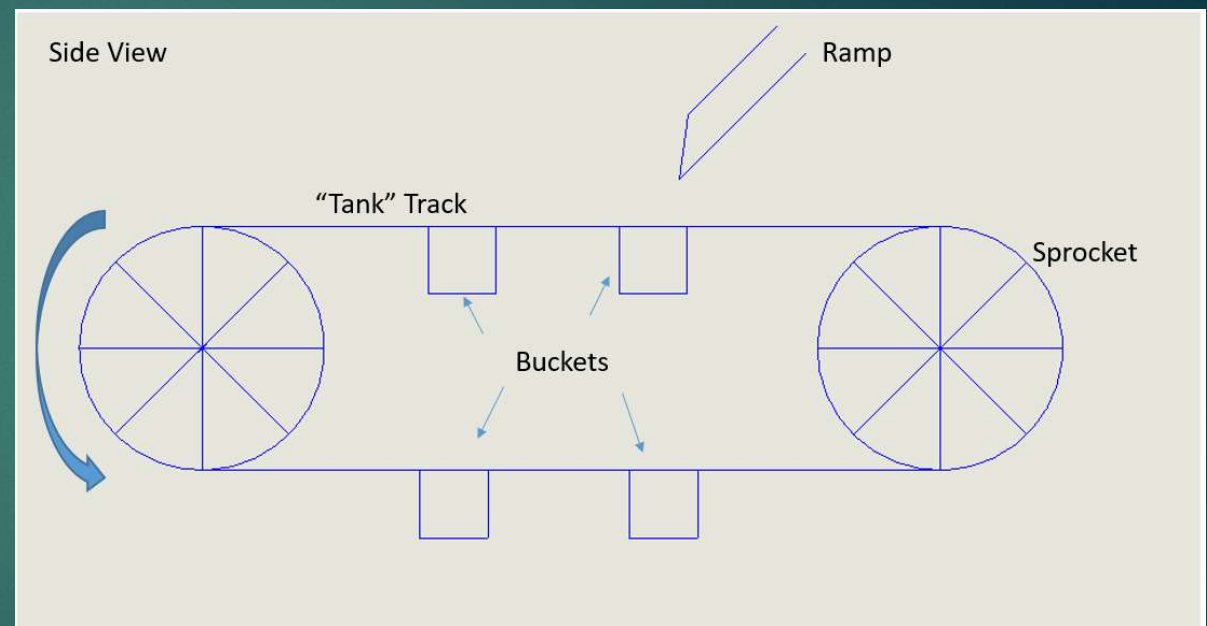


# Concept Generation – Bin Designs

Rotating Ramp W/ Stationary Bins



Horizontal Tank Track



# Decision Matrix

Inlets	Base Area	weight	Mass	weight	Large input Volume	weight	Durability	weight			outcome	
Lift platform	10	0.3	10	0.3		10	0.2	5	0.2		9	
conveyorbelt with platforms	10	0.3	8	0.3		10	0.2	10	0.2		9.4	
Belts	Base Area	weight	Mass	weight	Enclosed System to Prevent Pinch Points	weight	Cost	weight			outcome	
simple conveyor belt system	6	0.3	9.5	0.3		7	0.1	10	0.3		5.4	
compact conveyor belt system	10	0.3	10	0.3		10	0.1	5	0.3		7	
Bins	Base Area	weight	Mass	weight	Enclosed System to Prevent Pinch Points	weight	Cycle Time	weight	#Types	weight	outcome	
rotating ramp with stationary bins	1	0.3	10	0.3		2	0.1	3.3	0.05	2.6	0.15	4.1
horizontal tank track	10	0.3	6	0.3		10	0.1	10	0.05	10	0.15	7.8