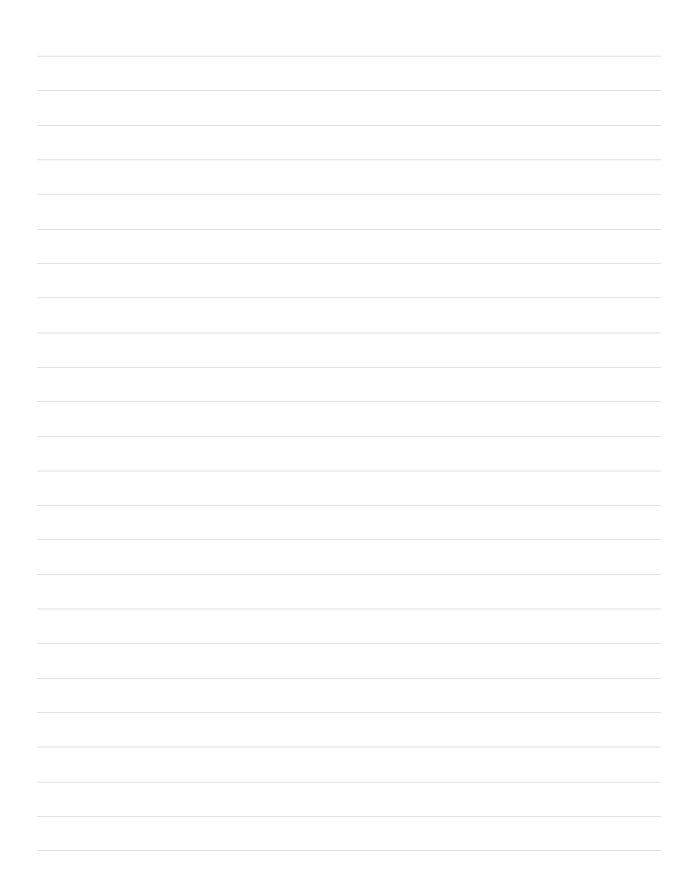
Identify the need
- The situation: Our autonomax was ineffective
- The situation: Our autonomax was ineffective - Challenge statement: Create a program/thing that can track a robot's location and direct it on a 12 × 12 ft? FTC game field
Describe
Describe the need
- Can direct a robot to any arbitrary point - Existing approaches: Time, acceleranter, light
Constraints
- Must use FTC allowed parts/materials only
Requirements
- Must be fast enough to complete an autonomous routine within
30 seconds
- Can withstand the occasional violent blow
Characterize and Analyze the system one
- Produce a functional model - I didn't make so, how would
you obit?
Activate Power - Deactivate power
P i la
Receive coordinate input Stop
Translate into motor movements Go to Point
A Jane

Requirements The robot cannot stop for more thansec between a movement and must travel at speed z _ cn/s "Can withstand z N of force for z _ s Divide project into subjections - Hardware subsystem - Software subsystem Understand equipment available (Tetrix/Robotic) - Encoders - The stability - Robotic - Trigonometry Set up demos Generated Concepts - I drifted between generate, and embody ① Accelerometer and Compass ② Encoder and Compass ② Encoder and Compass ③ Encoder and Compass ③ Encoder and Compass	Requirements The robot cornot stop for more thansec between e movement and must travel at speed z _ cm/s - (an withstand z _ N of force for z _ s Divide project into subgesterns - Hardware subsystem - Sotware subsystem Undorstand equipment available (Tetrix/Robot) - Encoders - Ark stability - Robot - Trigonometry Set up demos Generate "Generated Concepts - I drifted between generate, and embody D Acceleroneter and Compass ② Encoder and Compass		Quantify constraints, requirements Constraints
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Concept	Selection - my	process was	try the fi	fist thing	that ca	ne up	
Concept Selection - my process was try the first thing that came up How would you do it knowing some strategies? Example Pugh chart:							
1-5 rating × %							
	5=	Weight		2	(3)	14)	
Phycical Complexity	Not complex practically	107.		4	3	2	
Physical robustness	indestructable	10%	3	2	2	2	
Physical bulk	\(\frac{18^3 \text{in}^3}{8^3}	5%	5	4	4	4	
Software Compexity	Easily understandable	152		2	3	3	
Reliability	100% reliability	25%			3	_3	
Salities all confreqs	Goes above and beyon	/ 25%			4	5	
Total	.	100%	•			l	



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