

ME 2110-F			
Yatong Bai, George Garcia, Audley Benson, Samuel Wolfson			
Function Tree Diagram			
Get higher scores than competitors in ME 2110 Big Project: Mission of Mars	Clear Surface of Radioactive Elements	Knock Elements Out of the Home Zone	Gain / Generate Energy
			Transmit Energy to Knock Elements Out
		Prevent Elements from Coming Back to the Home Zone	Direction Control
			Block Elements after Collision
	Collect Rock Samples for Study	Reach Out to the Samples	Gain / Generate Energy
			Transform Energy into Linear Motion
			Generate Signal for Next Step
		Move Samples Back	Start with Signal
			Direction Control
			Gain / Generate Energy
	Ridge Competition: Land Spacecraft in Marked Safe Zones	Identify Safe Zones	Identify Safe Zones
			Trigger Control Signal
		Move Spacecraft to Safe Zones	Hold Spacecraft
			Gain / Generate Energy
			Transform Energy into Linear Motion
			Direction Control
		Drop Spacecraft onto Save Zones	Respond to Control Signal
			Drop Spacecraft
		Remove Competitors' Spacecrafts from Safe Zones	Start with Signal
			Remove Competitors' Spacecrafts from Safe Zones
	Ridge Competition: Retrieve Astronauts	Identify Astronauts	Identify Astronauts
			Trigger Control Signal
		Reach Out to Astronauts	Gain / Generate Energy
			Transform Energy into Linear Motion
			Direction Control
			Stop with Signal
		Hold Astronauts	Start with Signal
			Hold Safely when Retrieving
		Retrieve Astronauts	Start with Signal
			Gain / Generate Energy
			Direction Control
			Transform Energy into Linear Motion
			Stop with Signal
	Place National Flag	Reach Out to the Mountain Range	Gain / Generate Energy
			Start with Signal
			Direction Control
			Stop with Signal
		Identify the Mountain Range	Identify the Cavity
			Trigger Control Signal
		Place the Flag	Start with Signal
			Place the Flag (Hold or Drop)