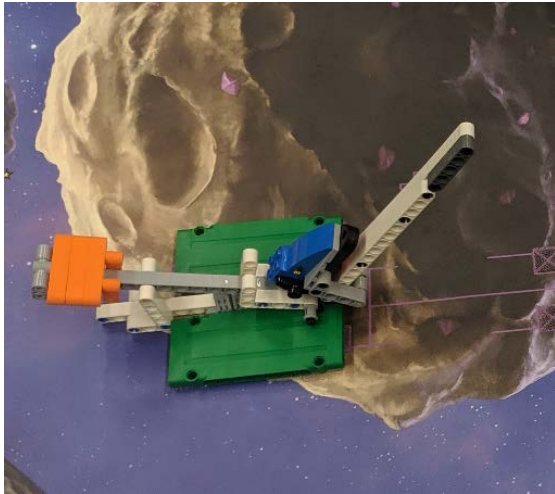

BEYOND ORBIT 2019 BONUS CHALLENGE

Asia Pacific Open Championship, Sydney, Australia

MISSION MODEL SETUP GUIDE



M1 ESCAPE VELOCITY



The launcher should be aligned such that the trajectory of the rocket follows the purple line on the field. The rocket should be resting on top of the white end of the launching bar.

M2 CRATER CROSSING



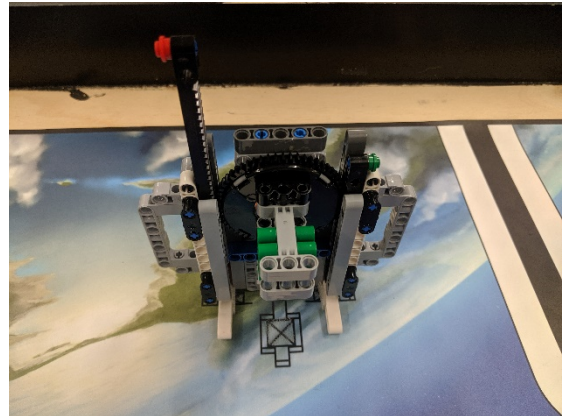
This model just needs to be in the right place with an upright axle on either outrigger.

M3 CONTROLLED DESCENT



The ramp should align to the corners of the solar panel with the feet facing forwards.

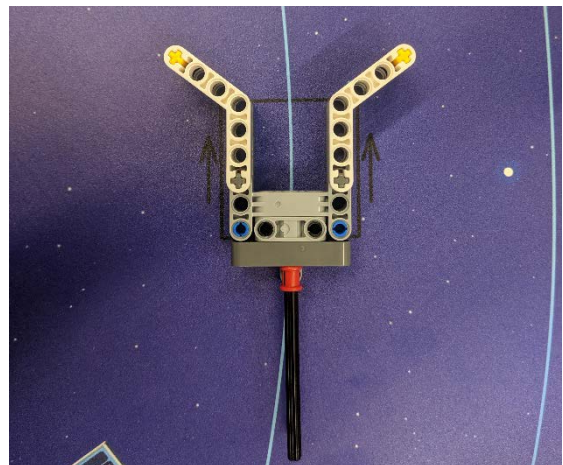
M4 TOOL USE



The red bar should be on the left of the model.

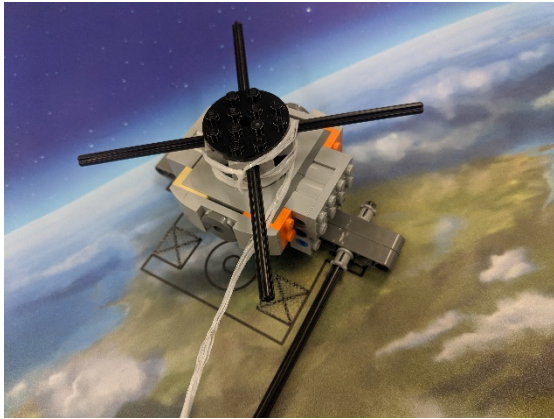
The grey side of the rod should be parallel with the ground and should rotate counter-clockwise 90 degrees easily.

When the green part of the rod is facing up, the green bar should be fully extended.



The tool should be centred in the old satellite box with the dark grey beam outside the box and white tines facing forwards.

M5 SPACEWALK RESCUE

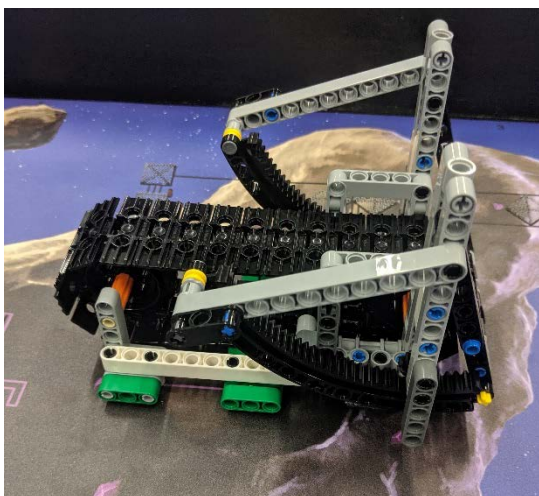


Tighten the string all the way (counterclockwise), then pull out Gerhard.



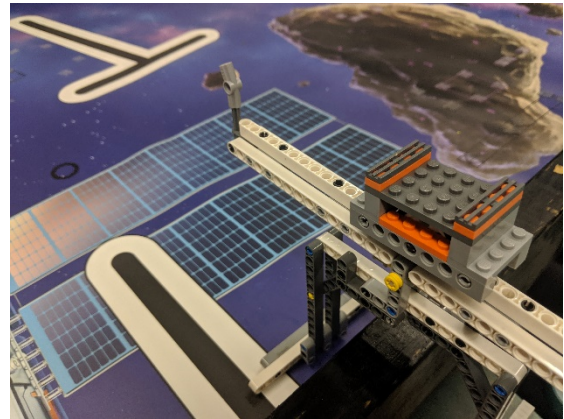
Hook Gerhard's legs over the ball. It should take approximately 1.25 rotations of the spinner to reel in Gerhard all the way.

M6 TREADMILL



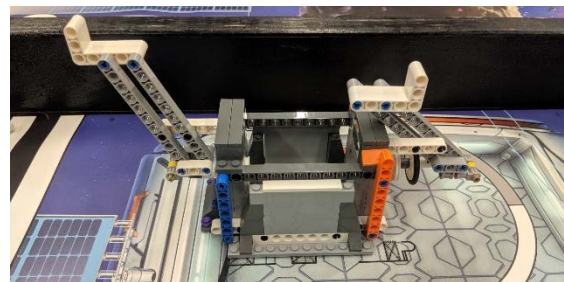
The gears should be lowered all the way as shown.

M7 LONG RANGE COMMUNICATIONS



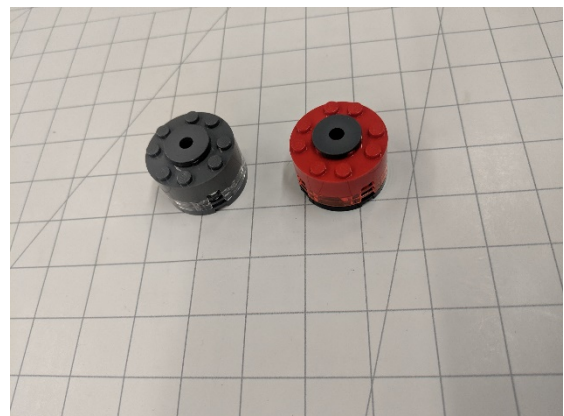
This mission should be in the same place on both fields, with the balance bar horizontal and the communication packet centred in the model.

M8 AIRLOCK



The Airlock should start with the blue door fully closed (pushed in as far as possible) and the orange door fully open (pushed out as far as possible).

M9 INTERSTELLAR MINING



The Minerals start in Base – each table should have one Grey and one Red mineral.