

LEGO BOOST Johnny 5

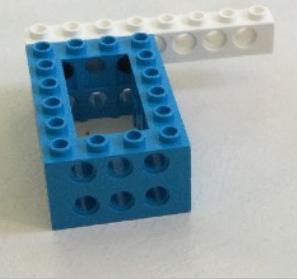
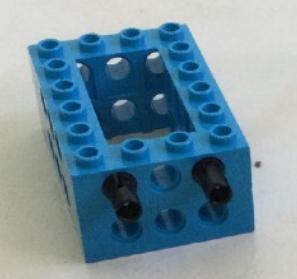
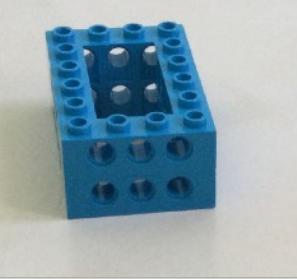
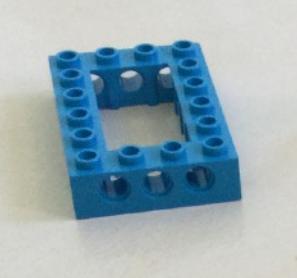
By Rowan, age 9

Inspired by the movie *Short Circuit*

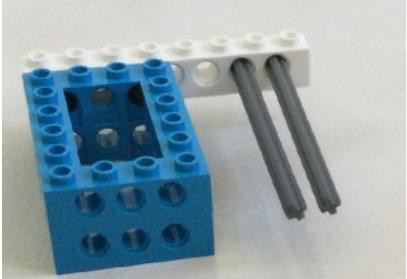
Programming instructions start on page 47.



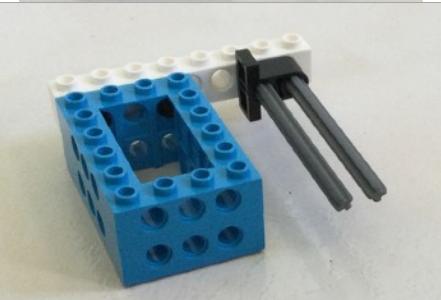
We start by building the stand.

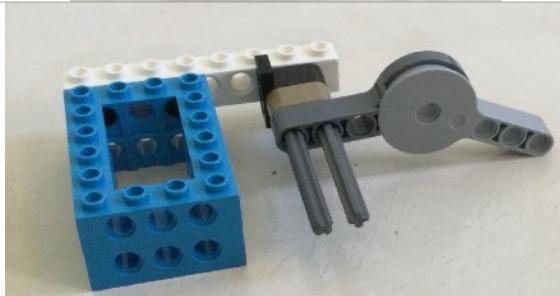
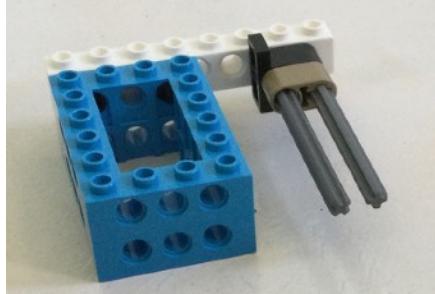


Add long axles

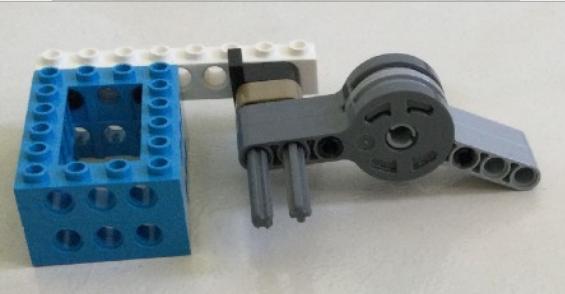
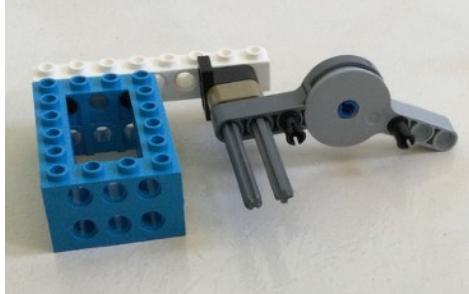


Slide the black piece on.

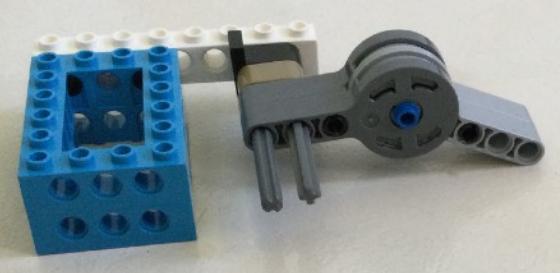




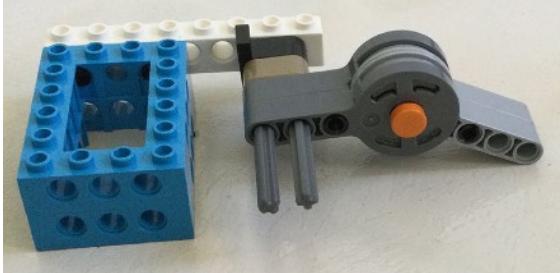
Add 2 black technic pins



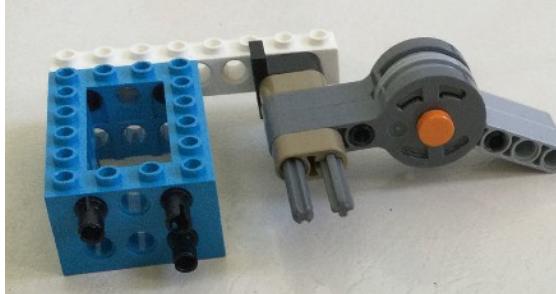
Add blue technic pins
on both sides



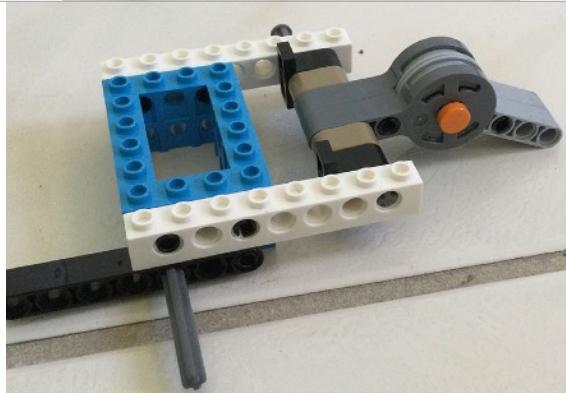
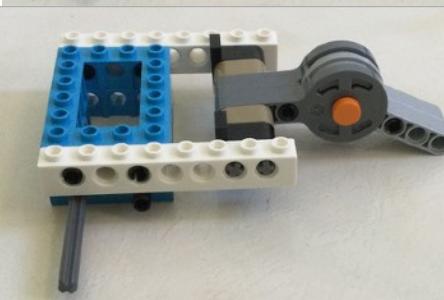
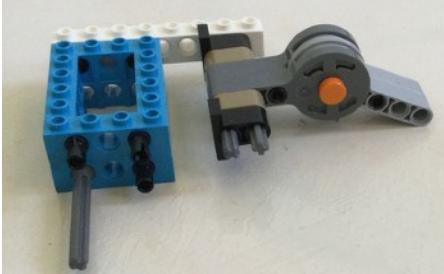
Add orange 1x1 caps
on both sides



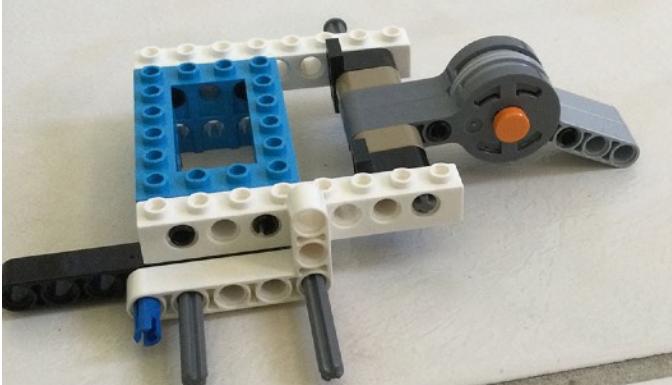
Add 3 black technic pins

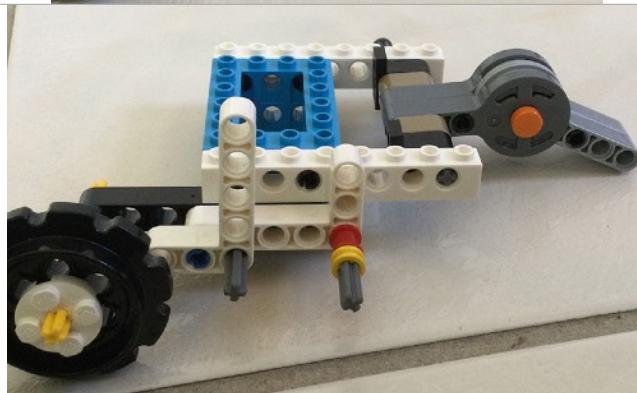
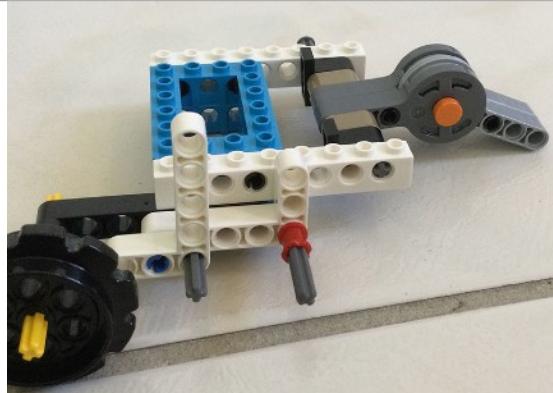
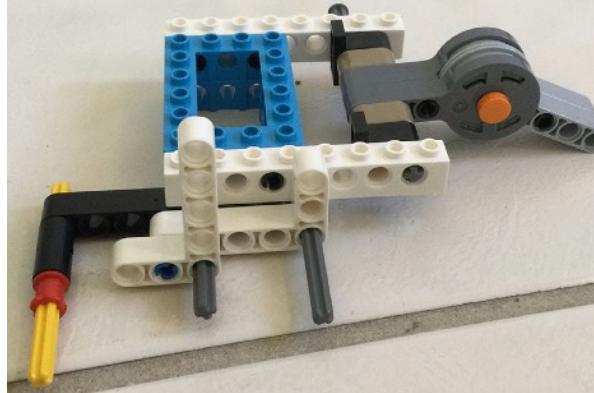
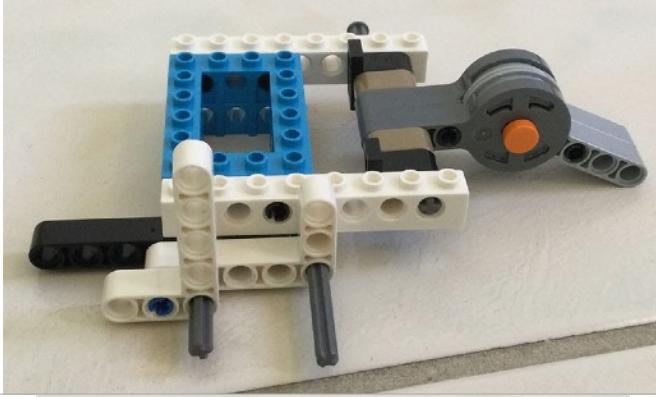


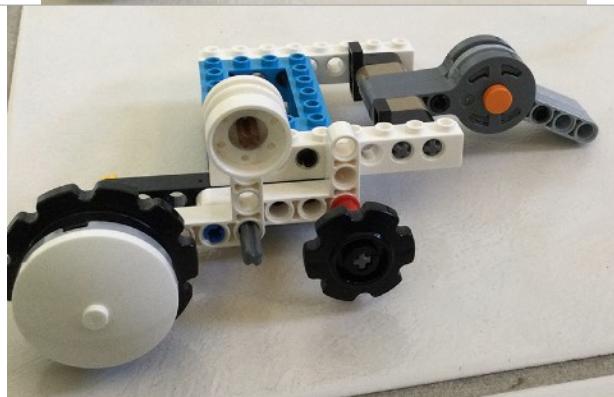
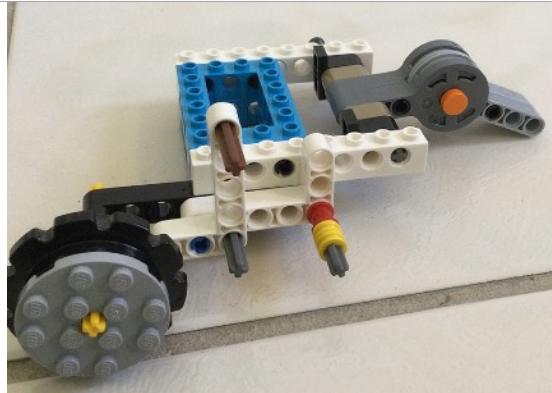
Add axle



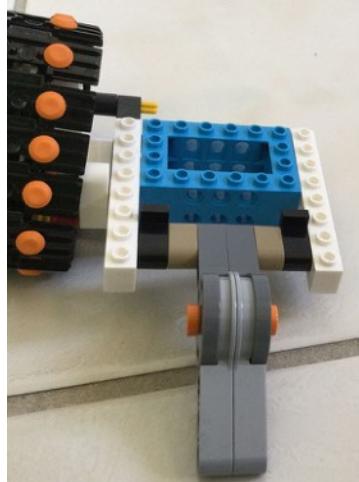
Now, we start building
the left crawler tracks.



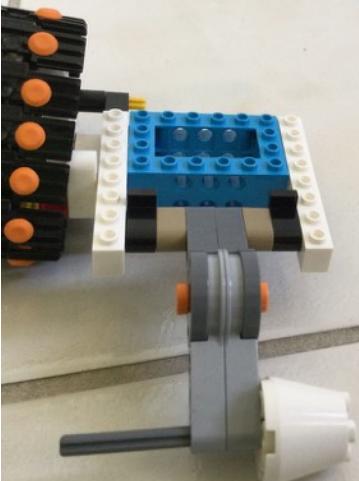




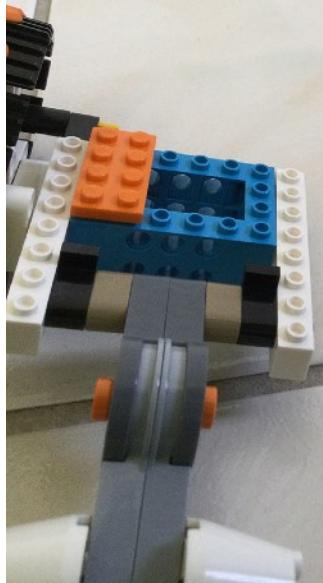
Use 19 tread pieces
for the left side



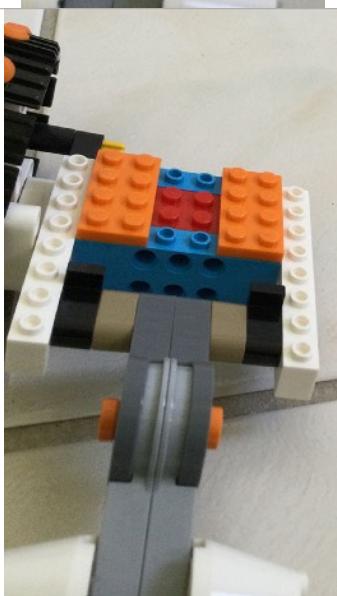
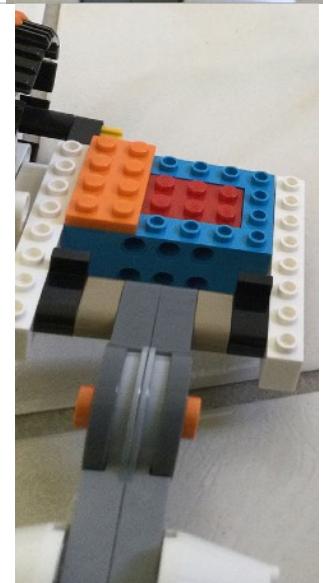
Build right wheel for the stand



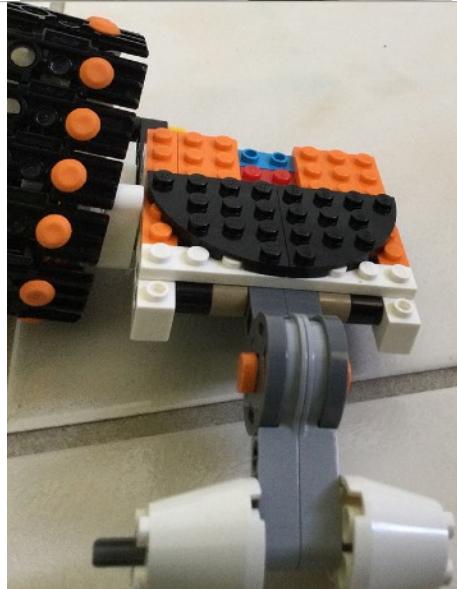
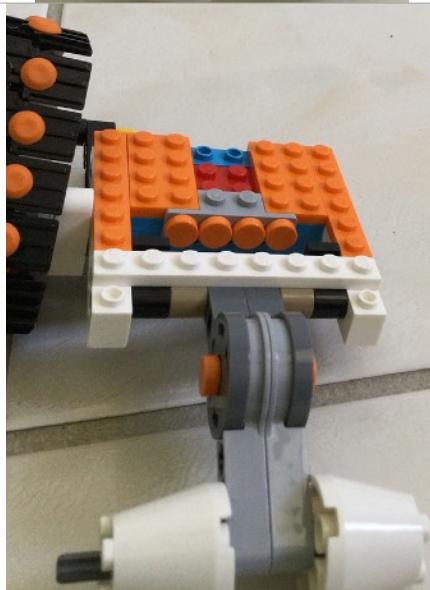
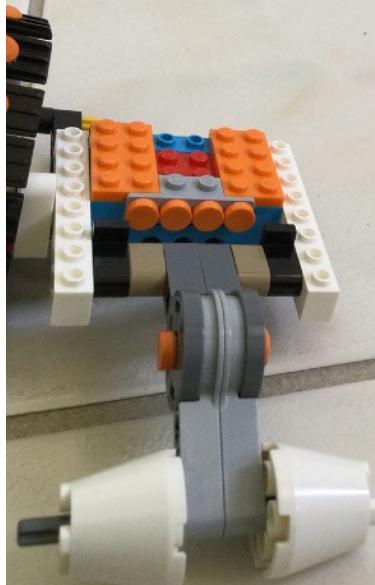
Add left wheel for the stand,
plus orange 2x4 plate

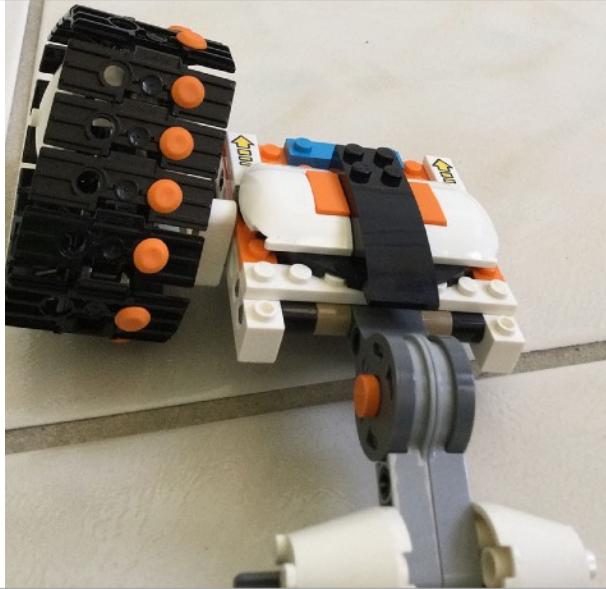
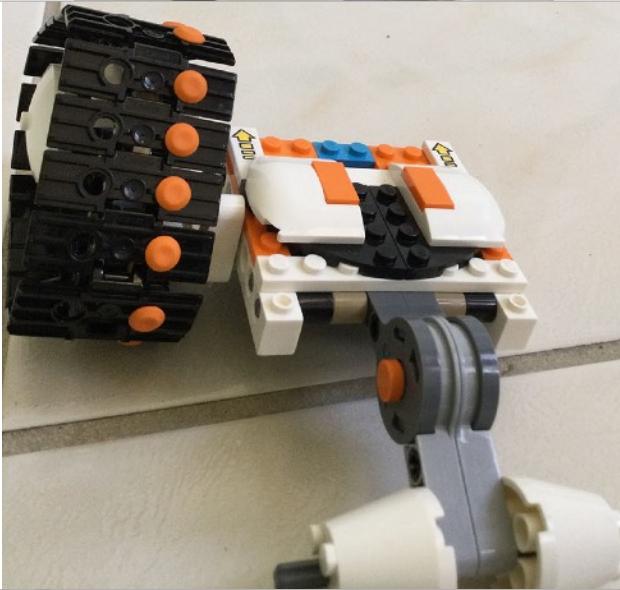
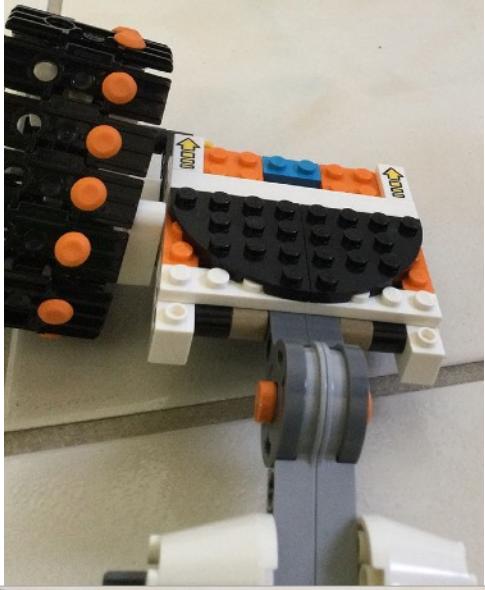


Slide in red 2x4 brick
from the back



Adding details for the back
of the stand





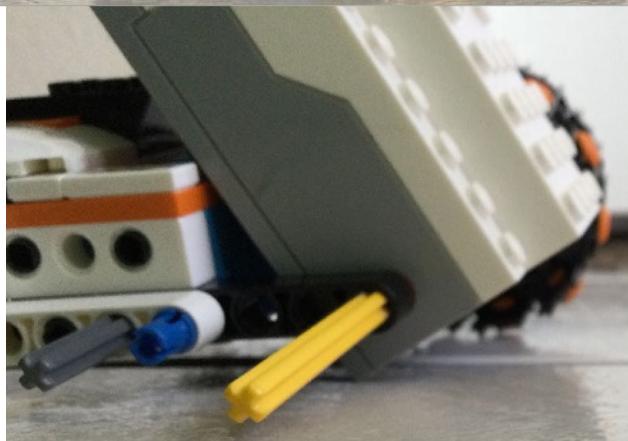
Move hub connects to yellow axle on the left side.



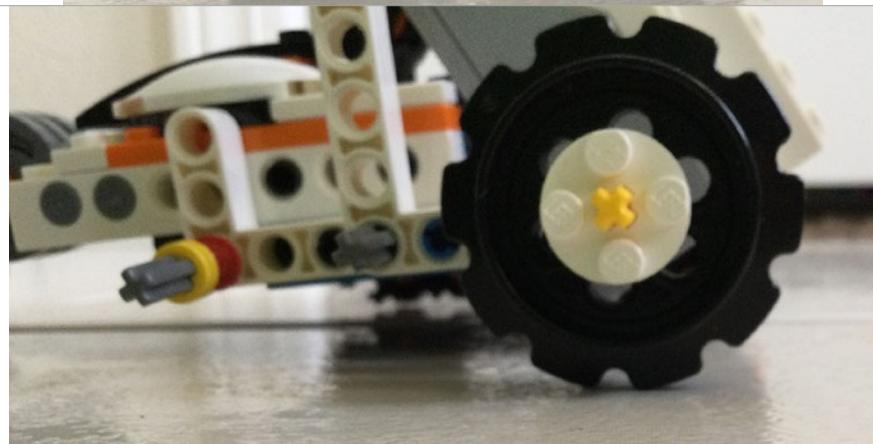
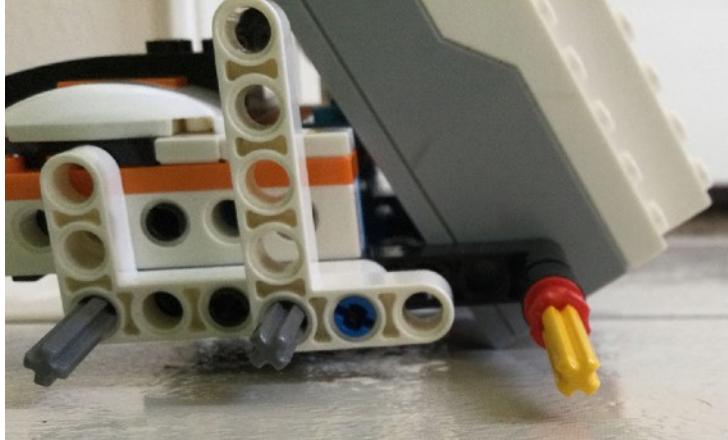
Add in axles and pin on right side

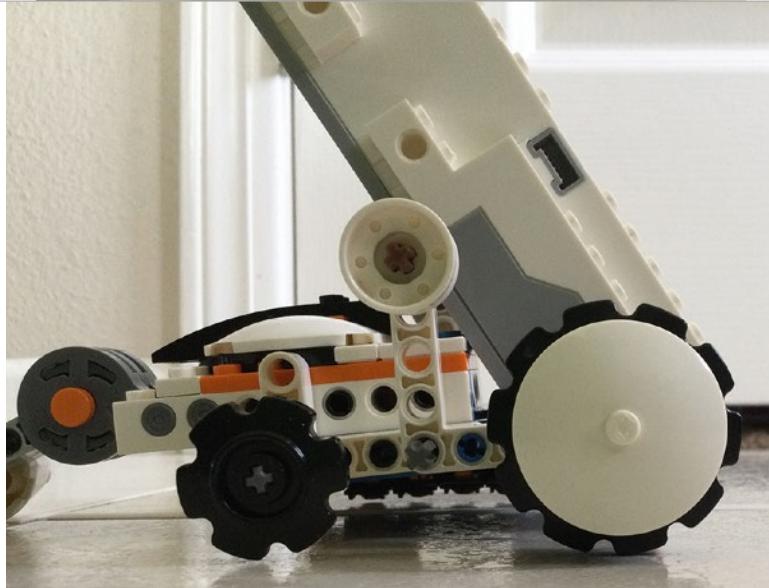
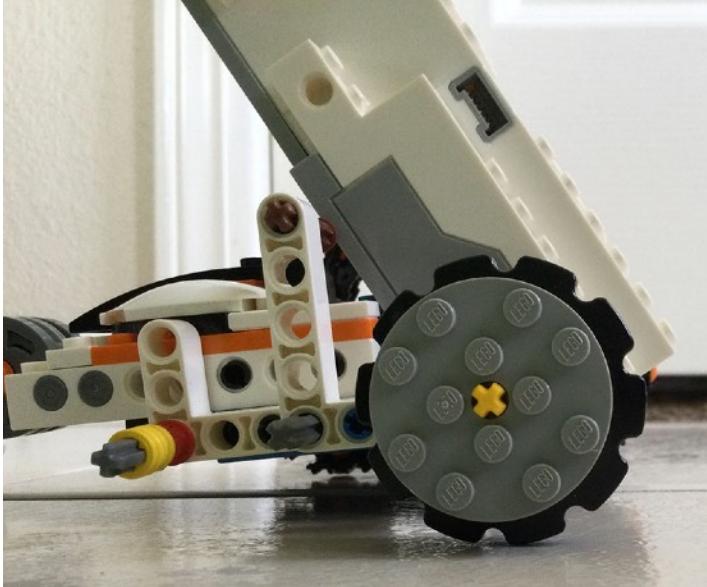


Add white technic bar over axles

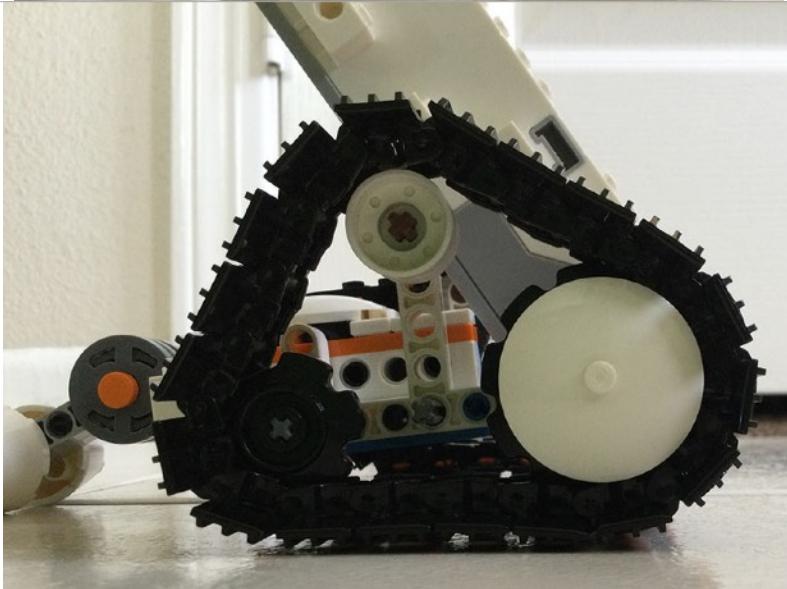


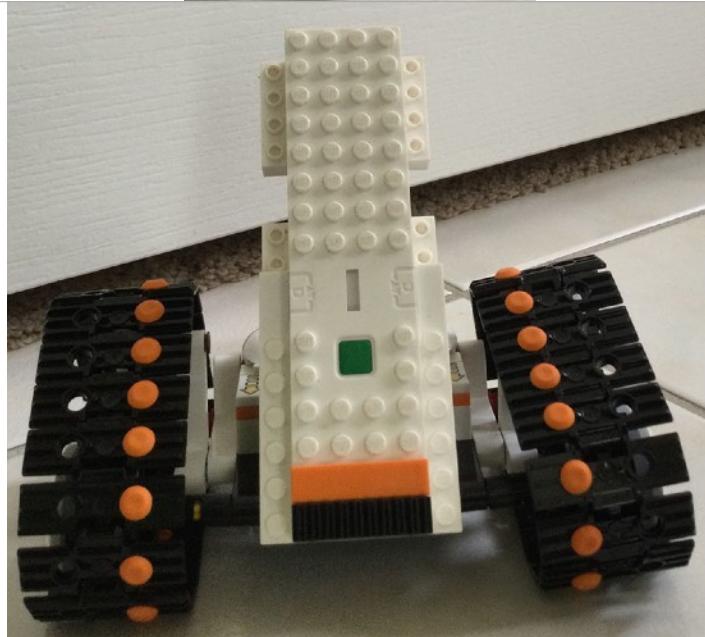
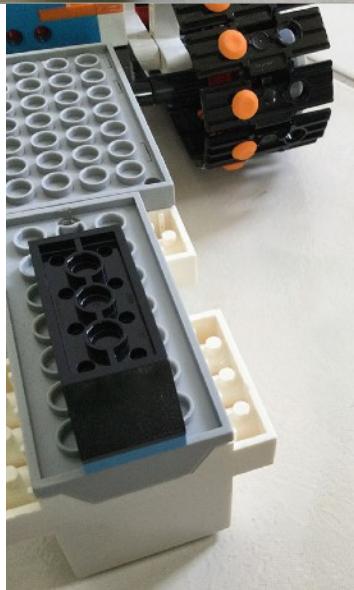
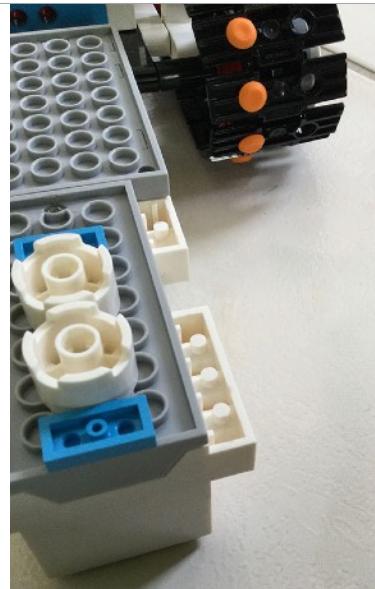
Continue building
technic frame for
right crawler track





Use 19 tread
pieces on right
side

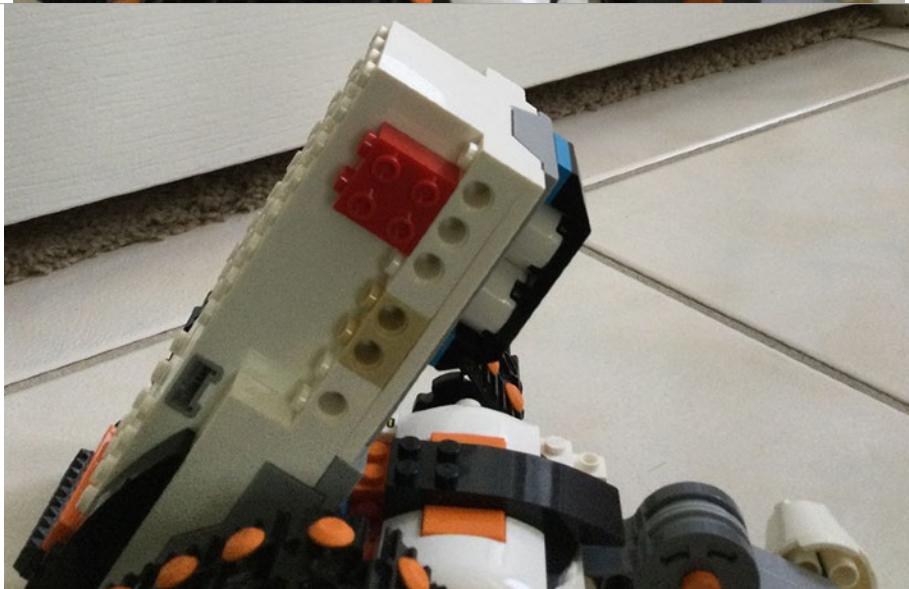
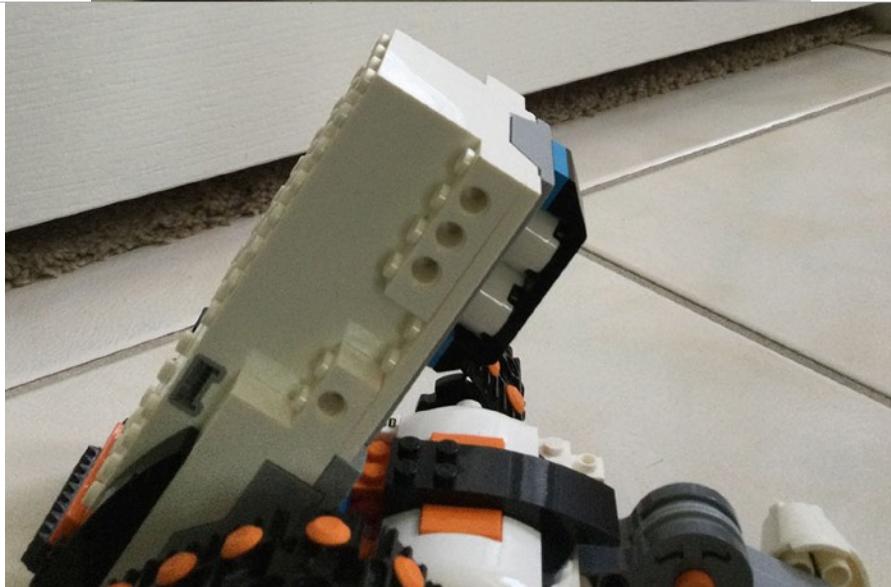


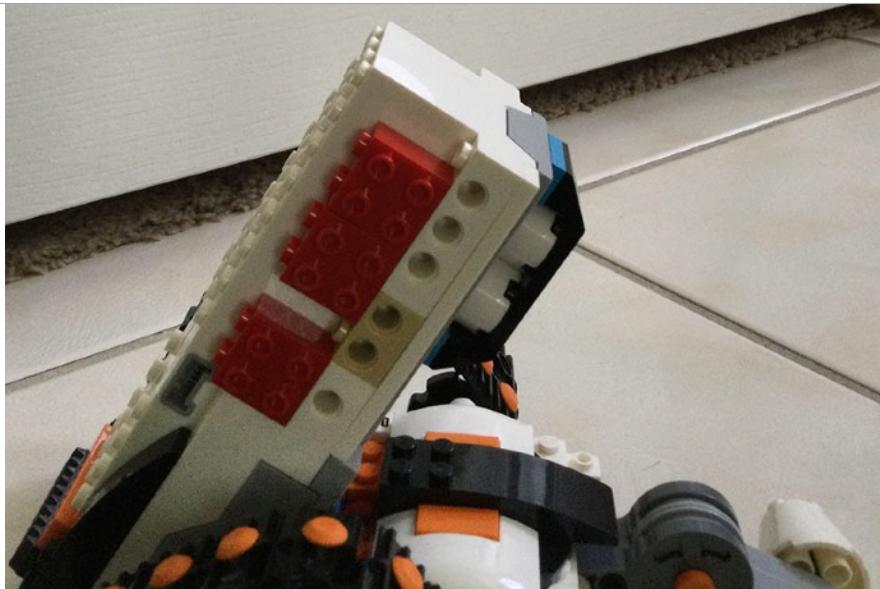


Add black 1x6
curved bricks

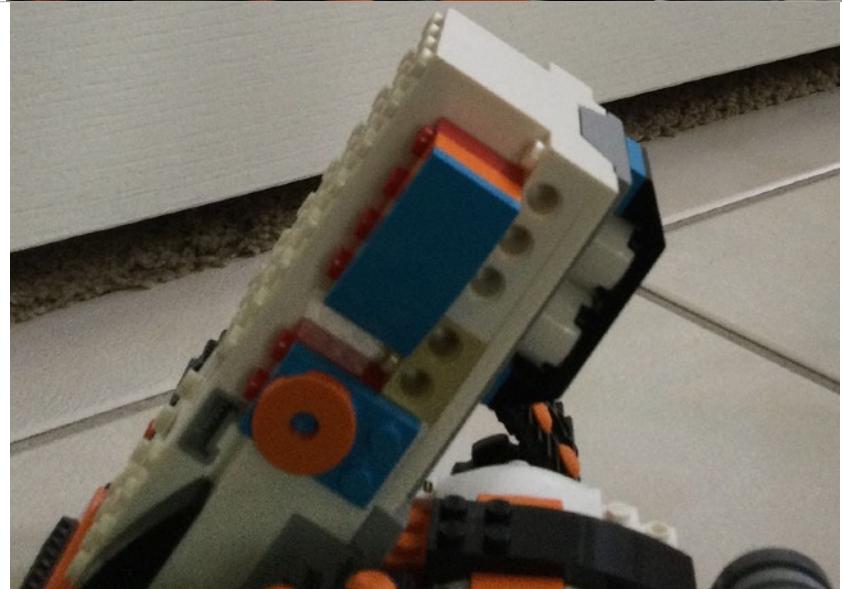


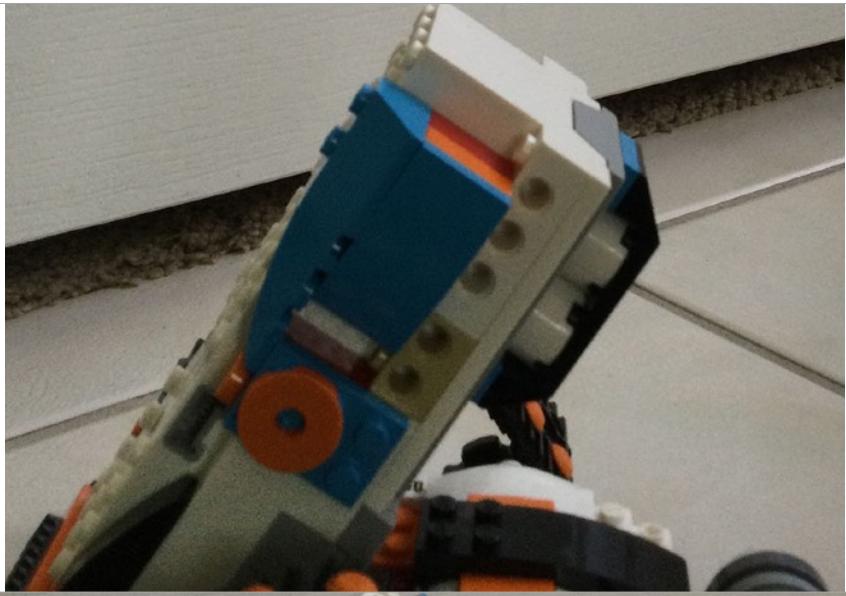
Add 1x8
white plate
under the
side of move
hub



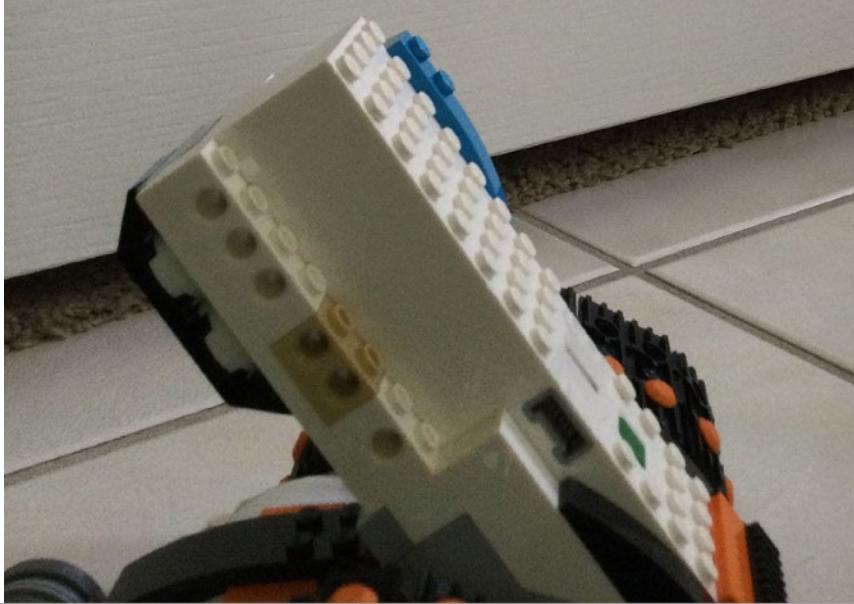


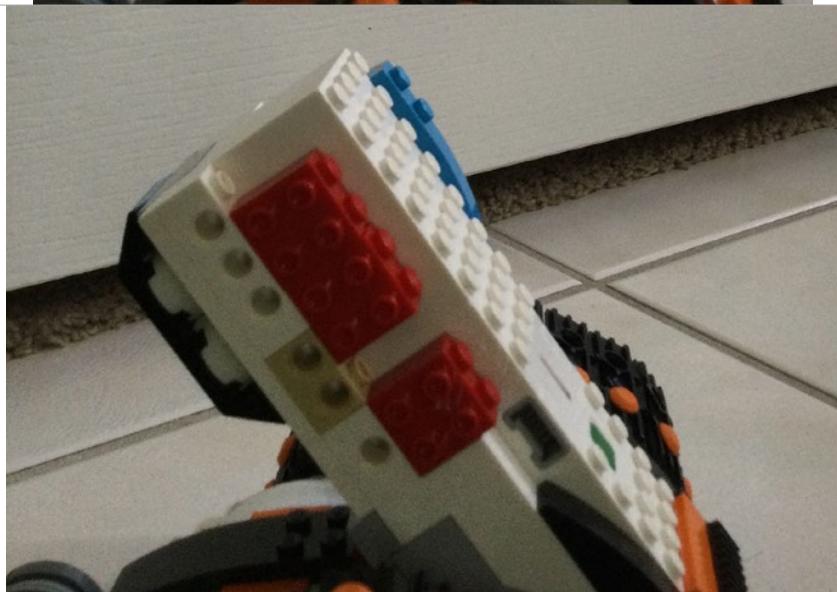
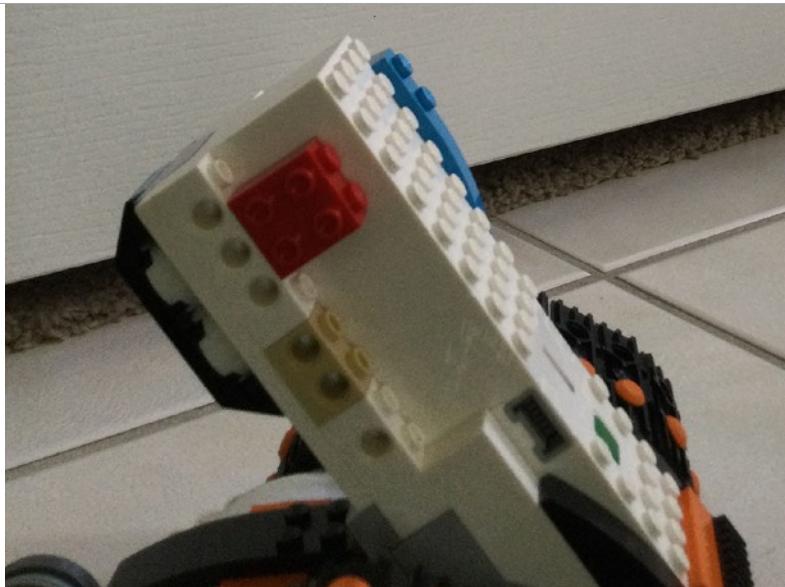
Adding details
on the left side

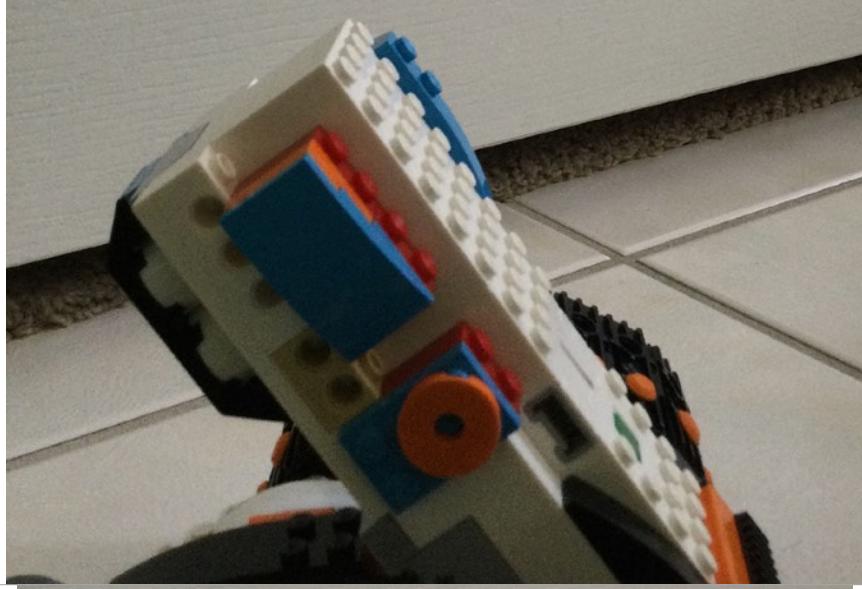
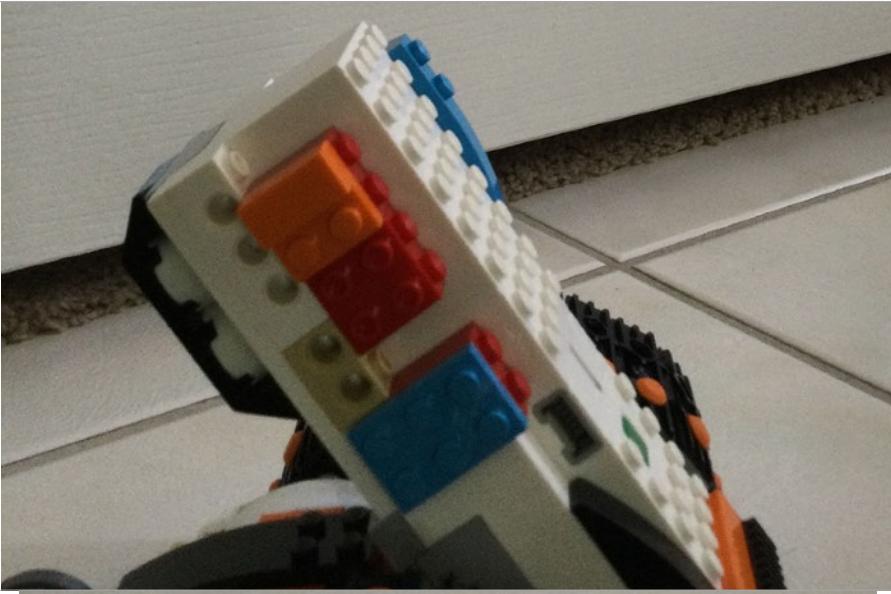




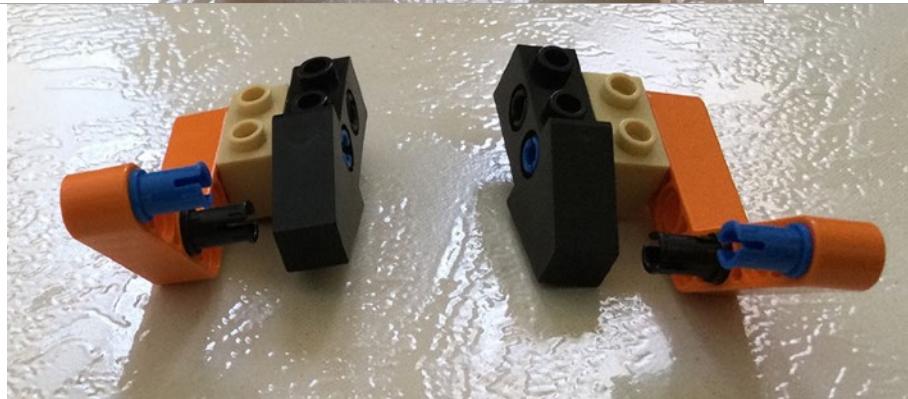
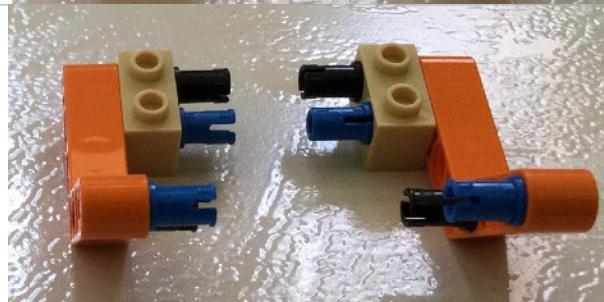
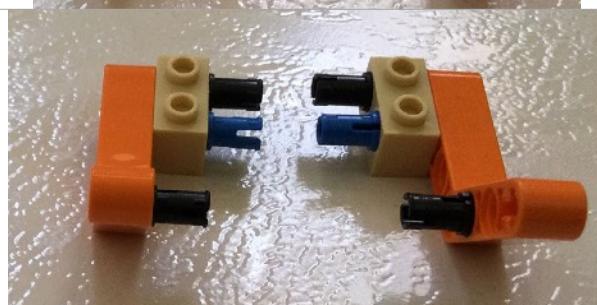
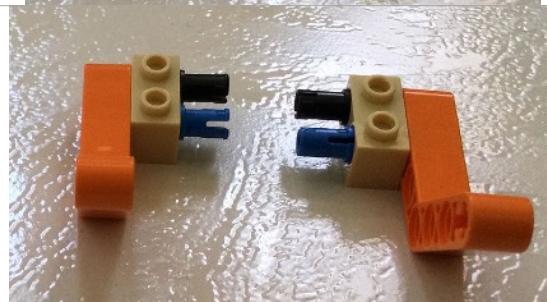
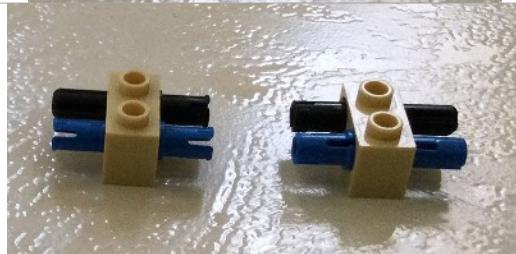
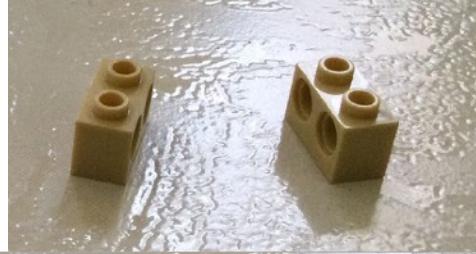
Repeat same
steps on right
side







Now, build the upper body...

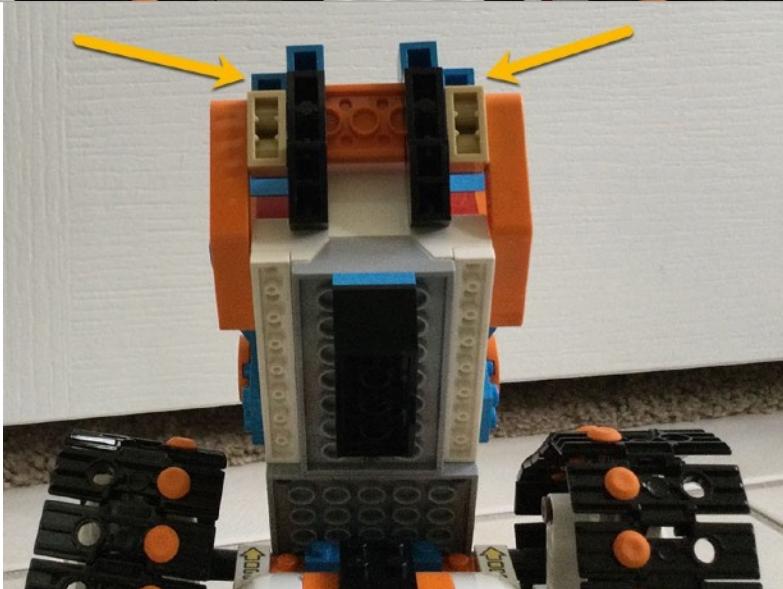


Attach orange technic beams to side of move hub using pins.

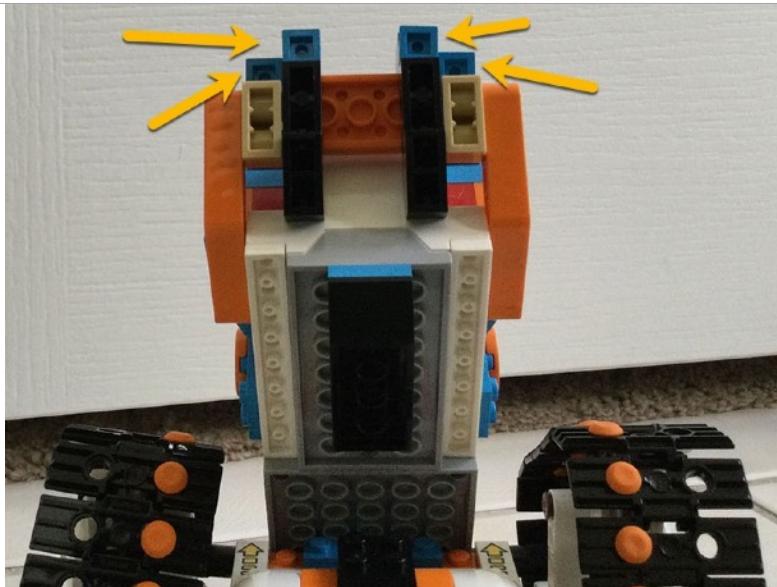




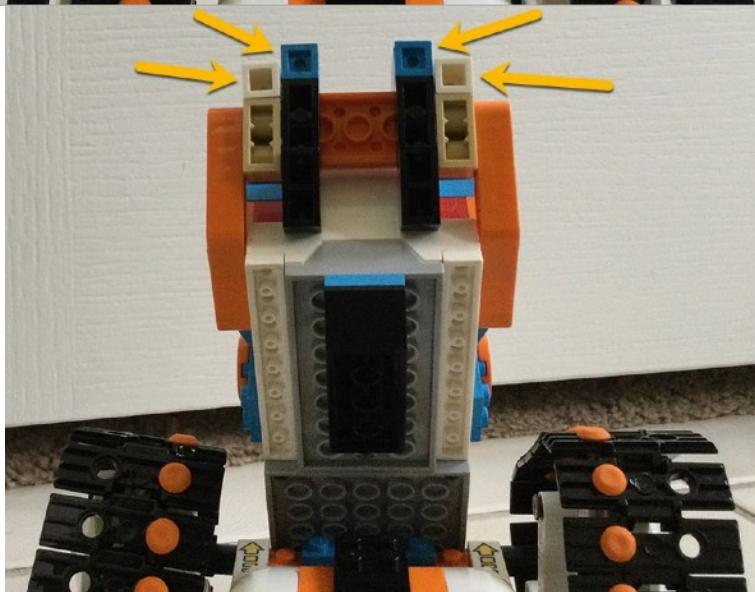
Turn it around.
Add two blue 1x3
curved slope
pieces with
cutouts.



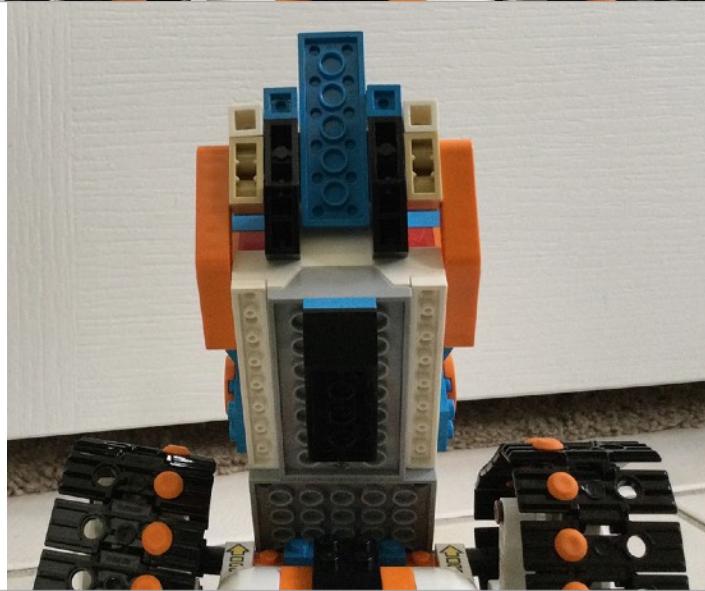
Add 4 blue 1x1 plates



Add 2 blue 1x1 plates and 2 white 1x1 bricks.

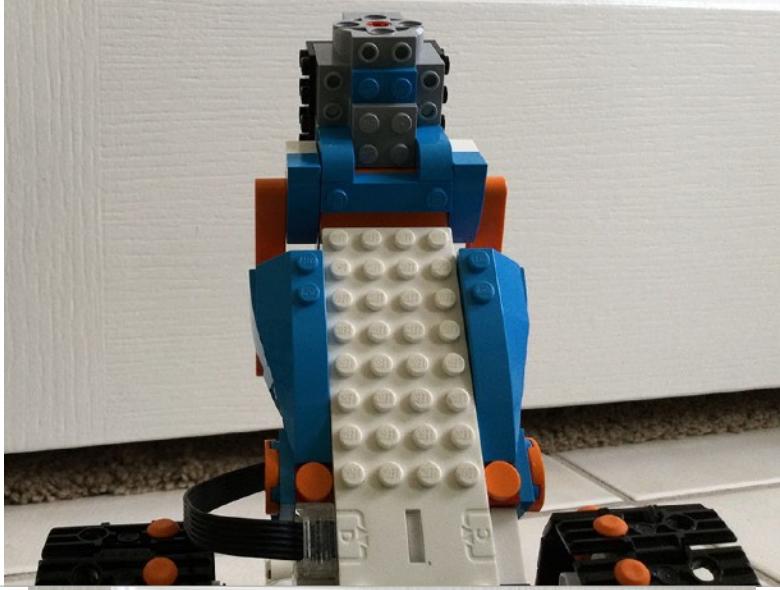


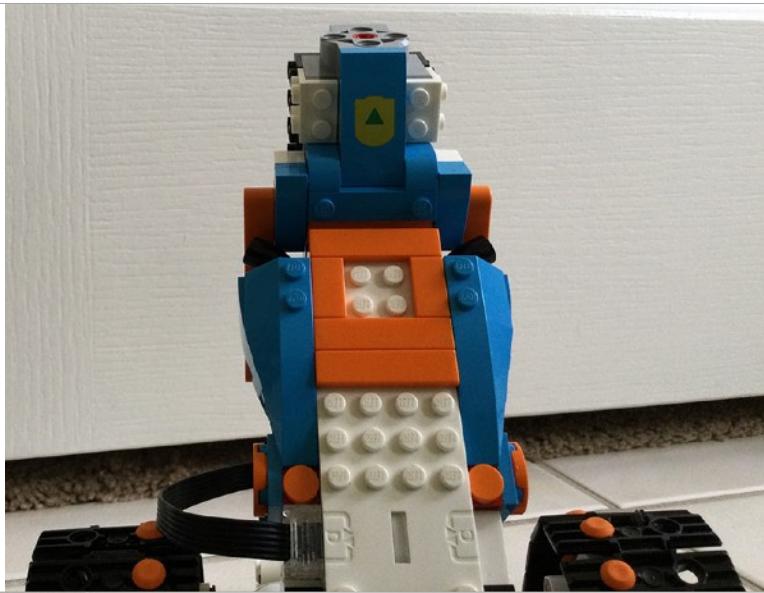
Blue 2x6 plate

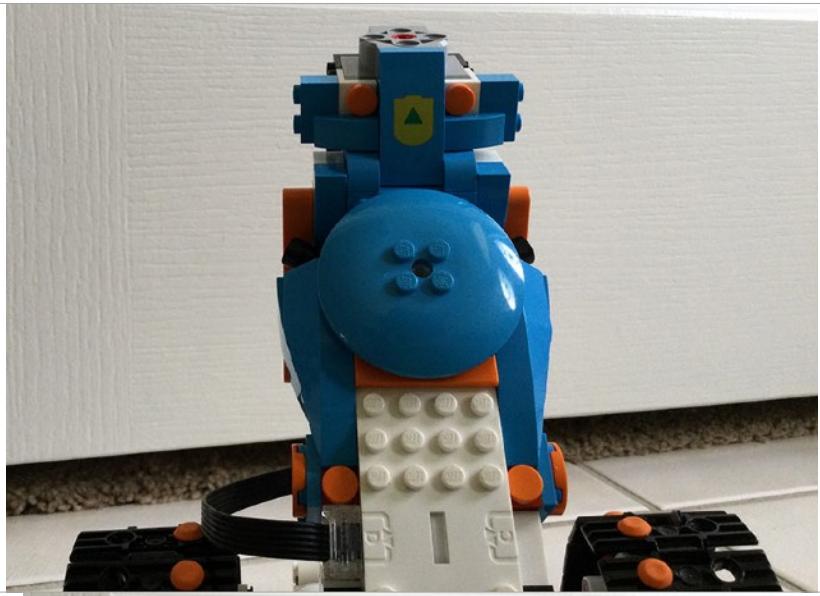


Connect the external motor.

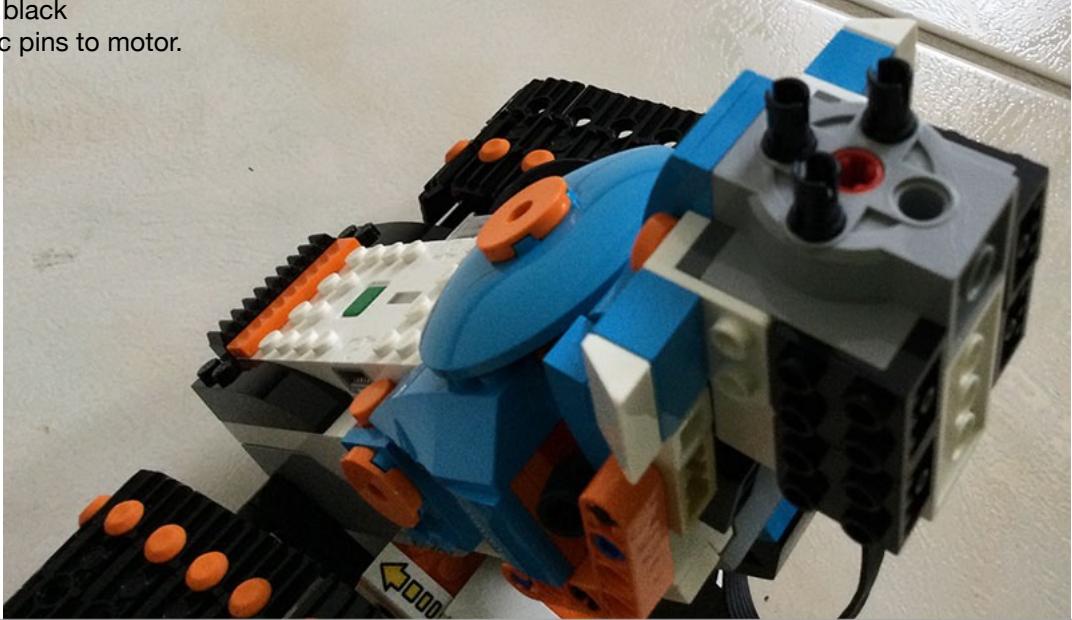


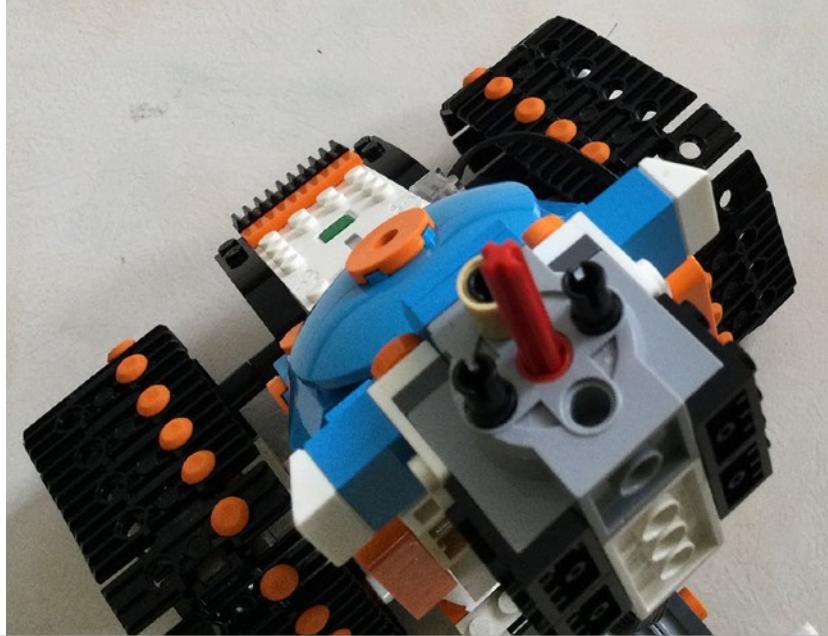




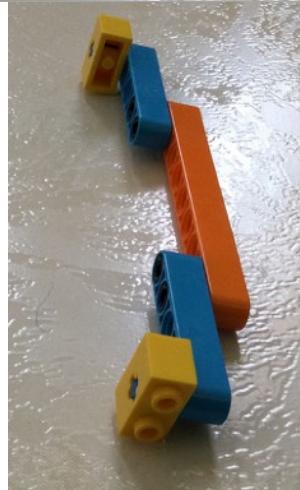


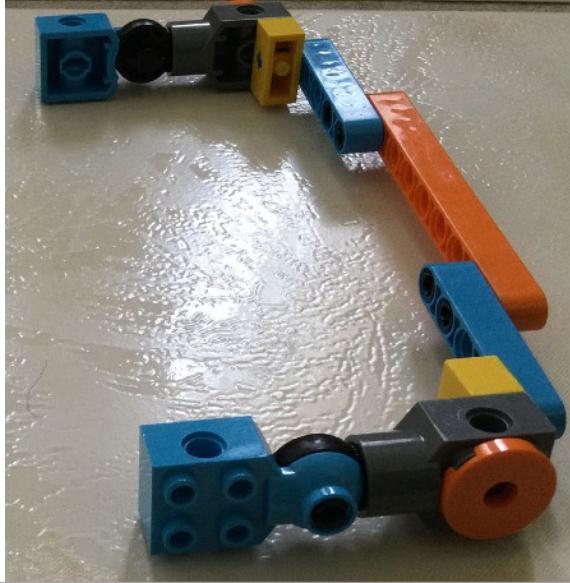
Add 3 black
technic pins to motor.

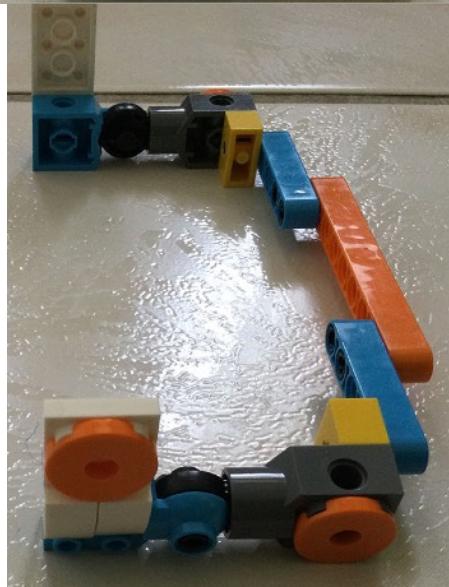
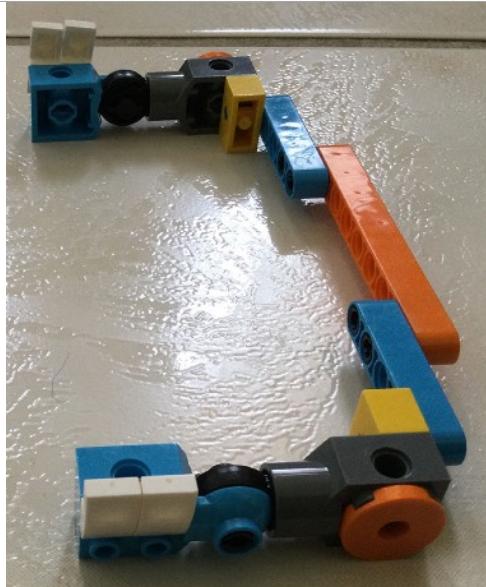


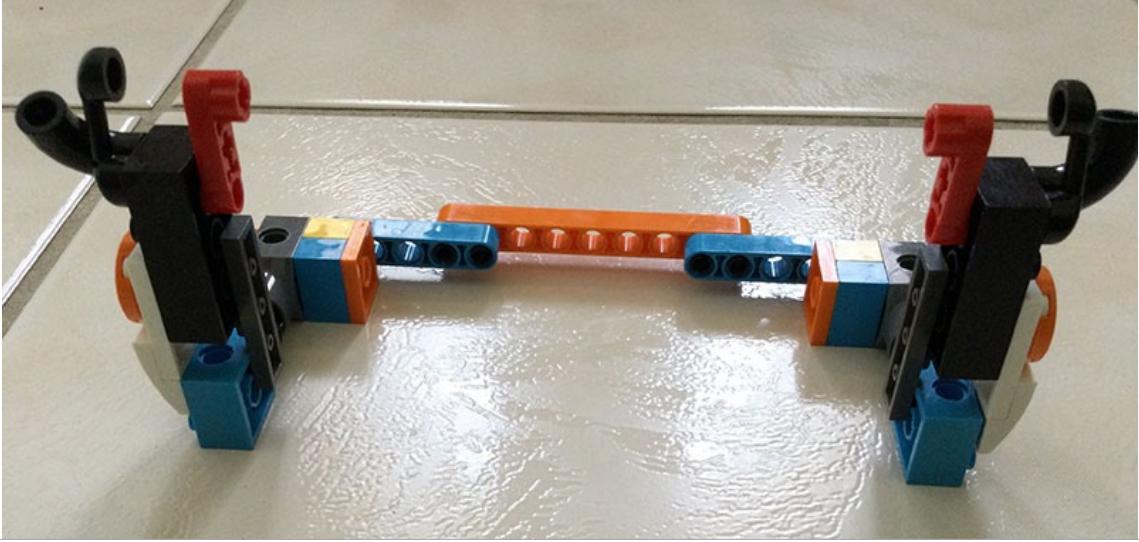
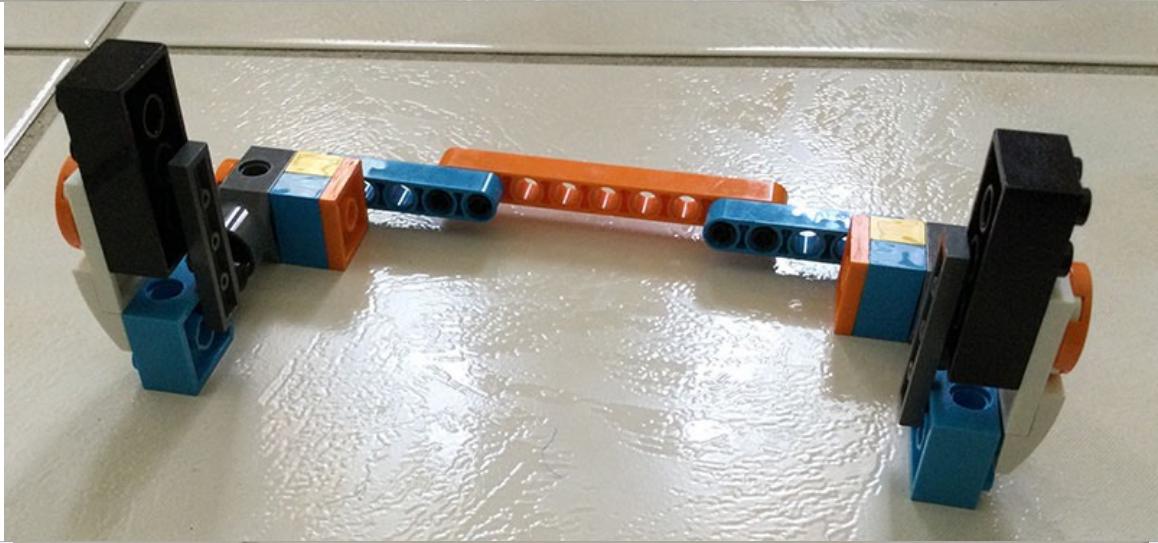


Build shoulders
and arms.

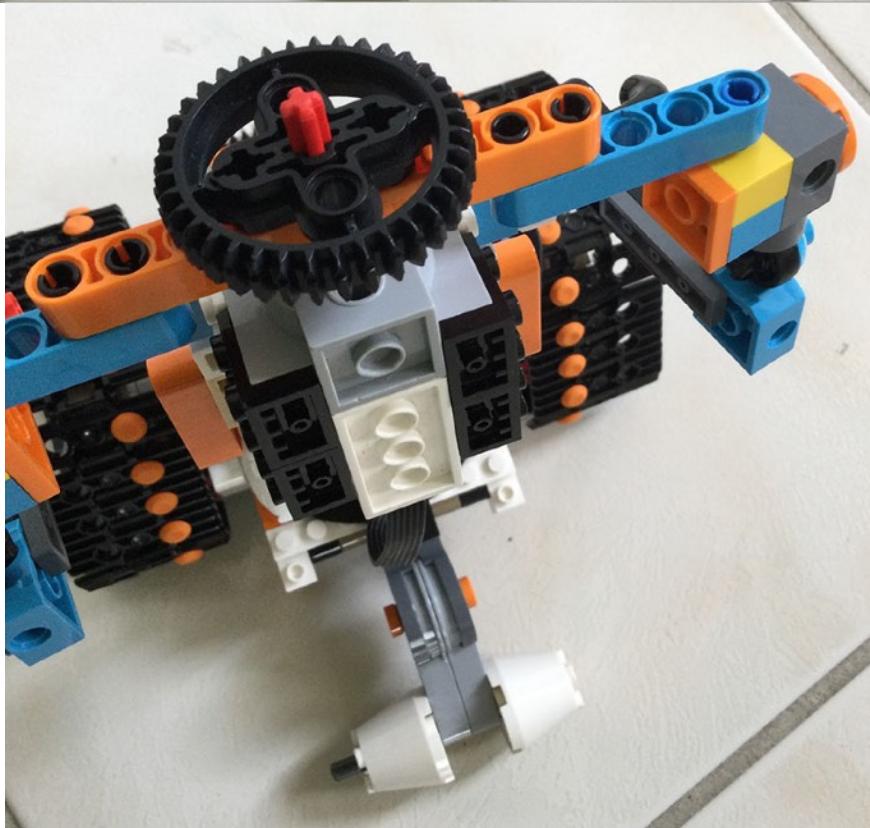
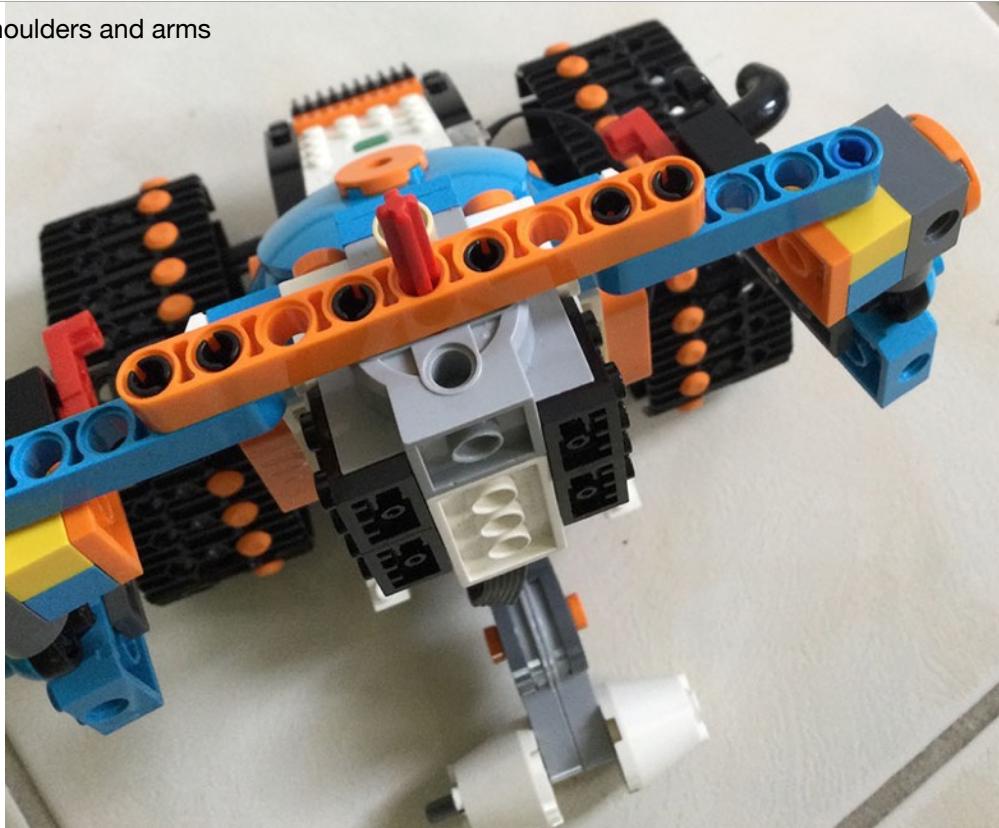




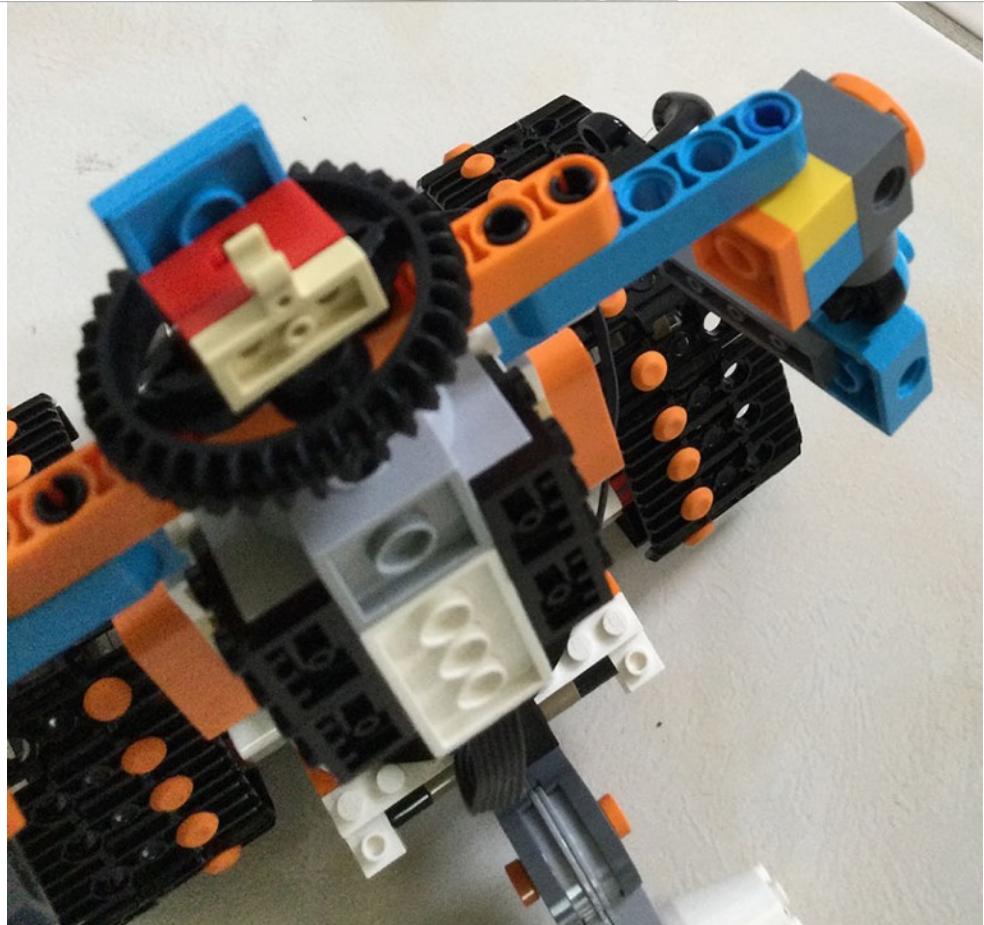
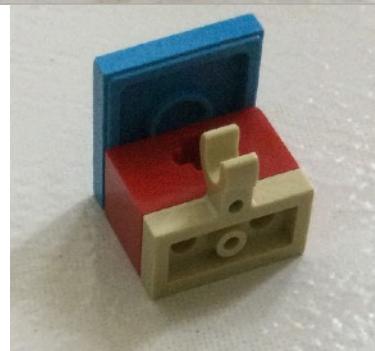
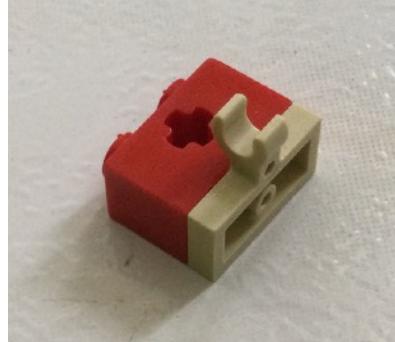




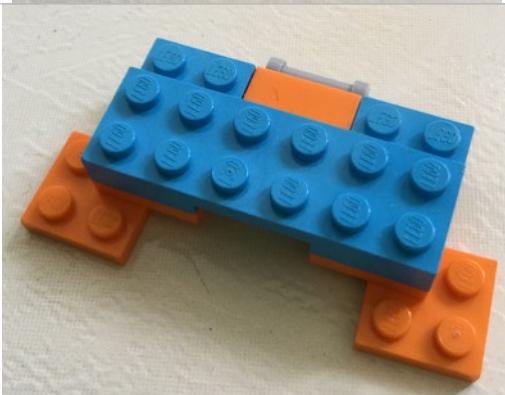
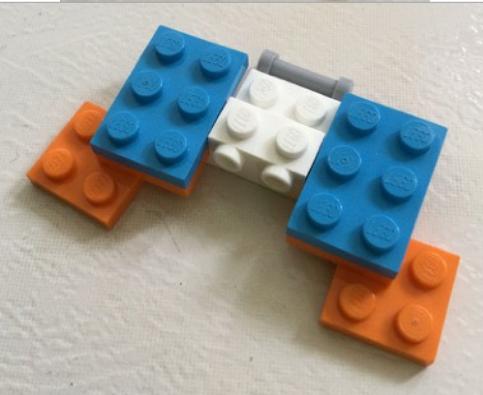
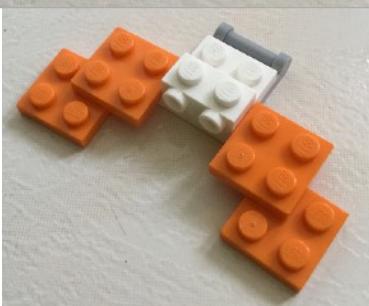
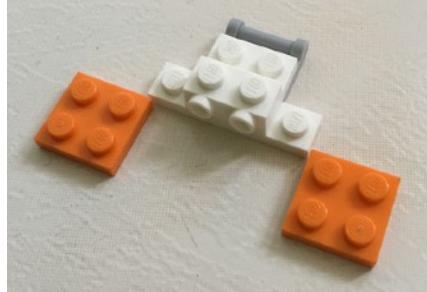
Attach shoulders and arms
to motor.

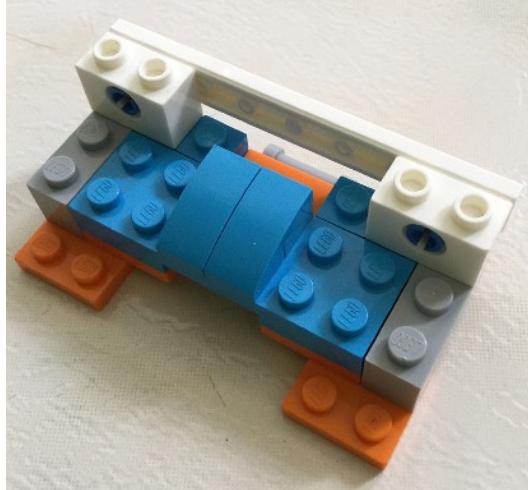
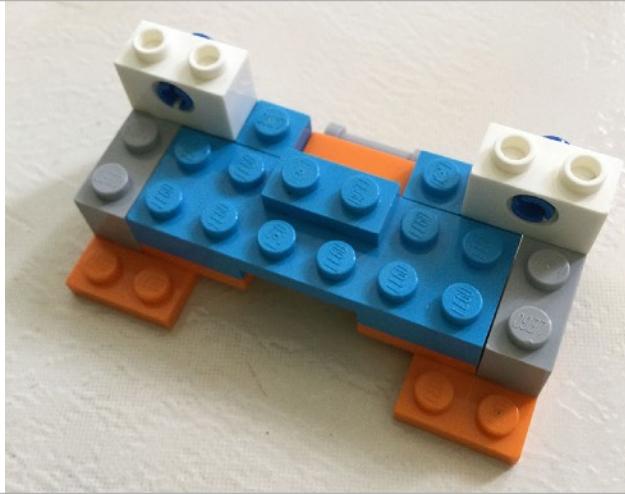
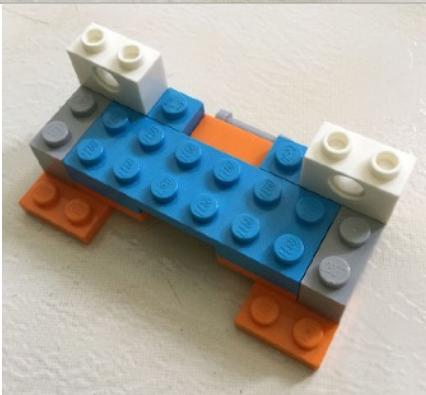
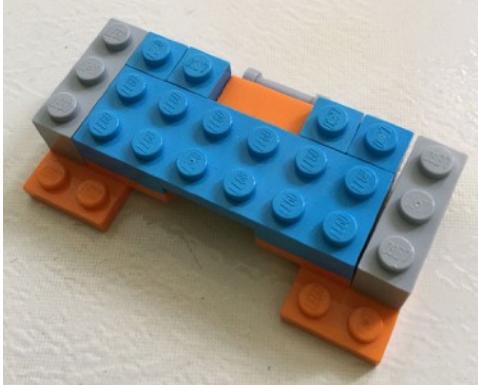


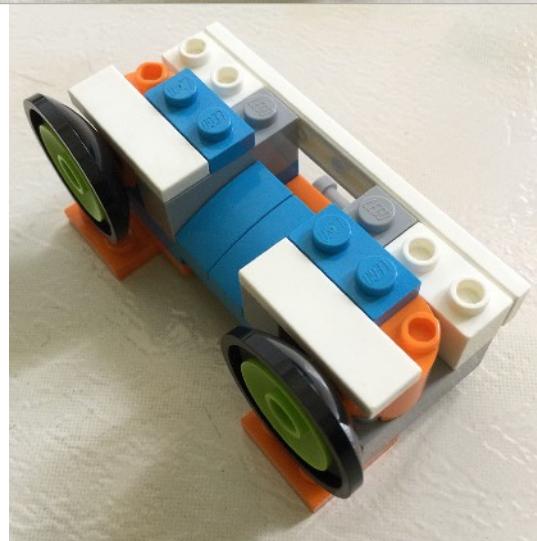
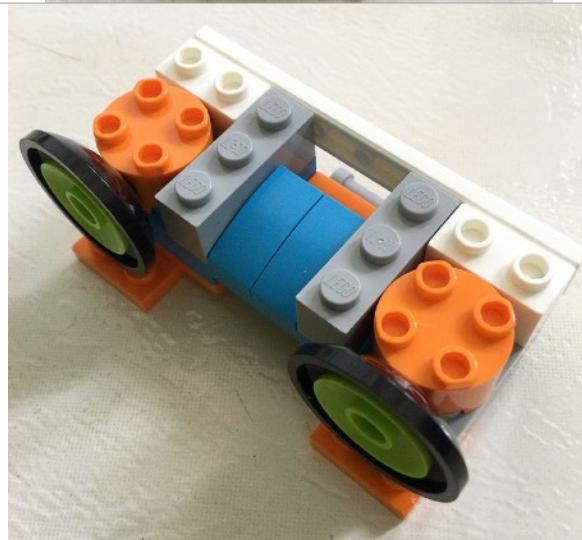
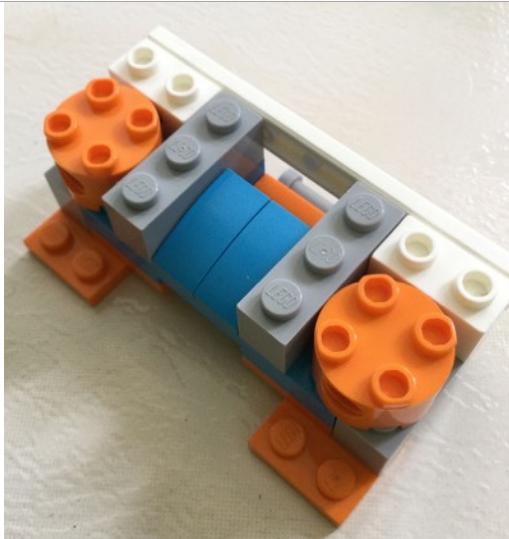
Build the neck

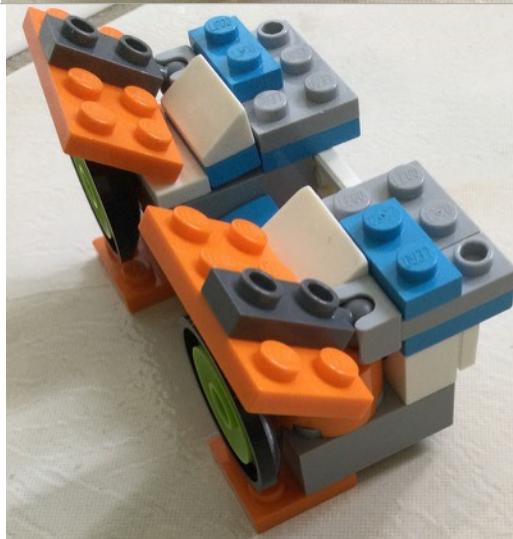
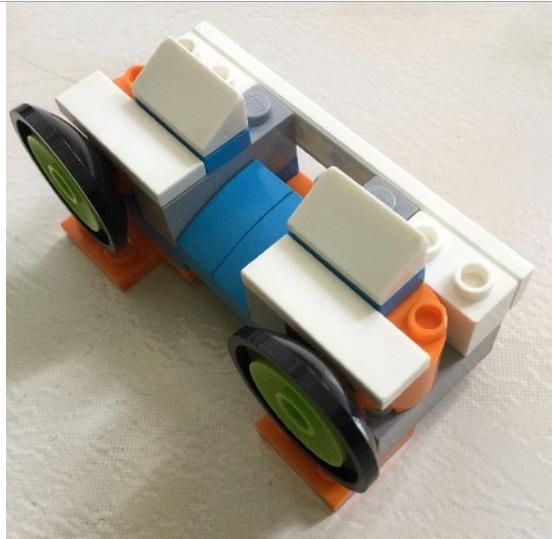


Build the head.





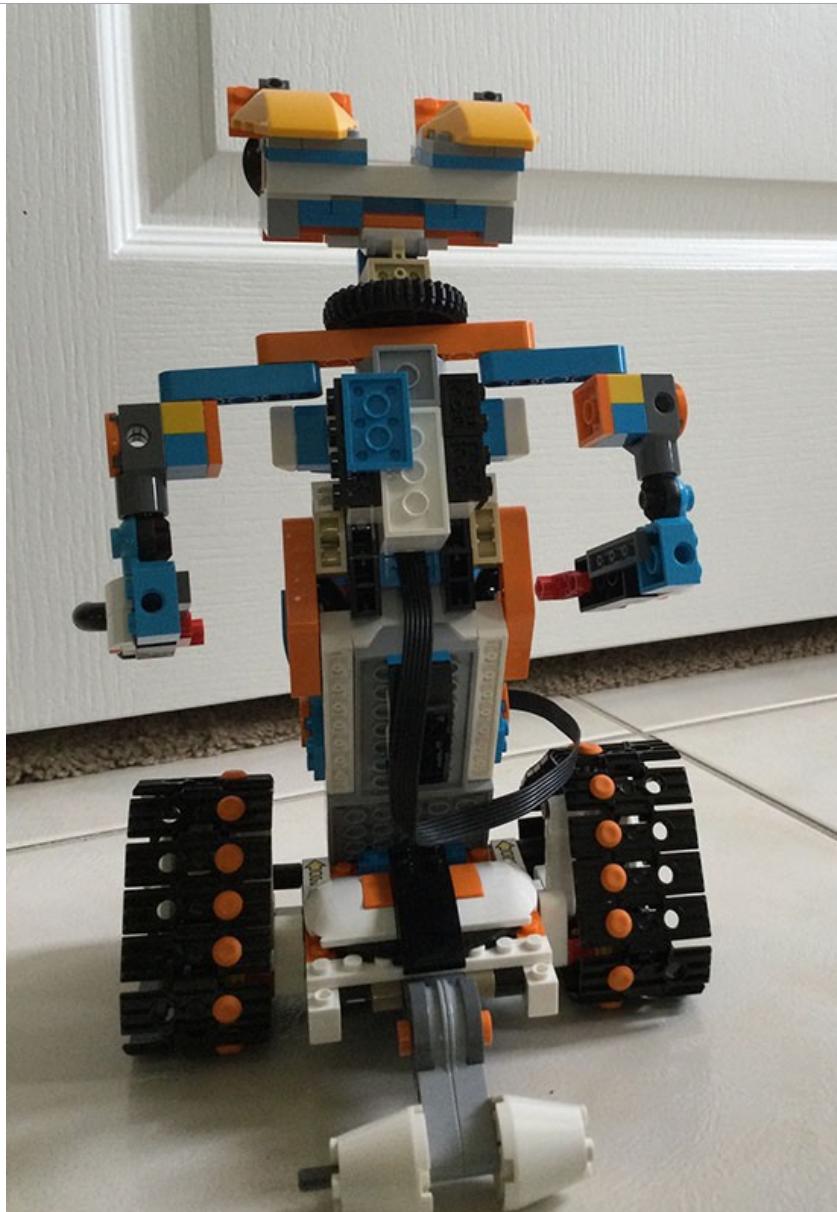






Attach head.





Build the laser cannon.



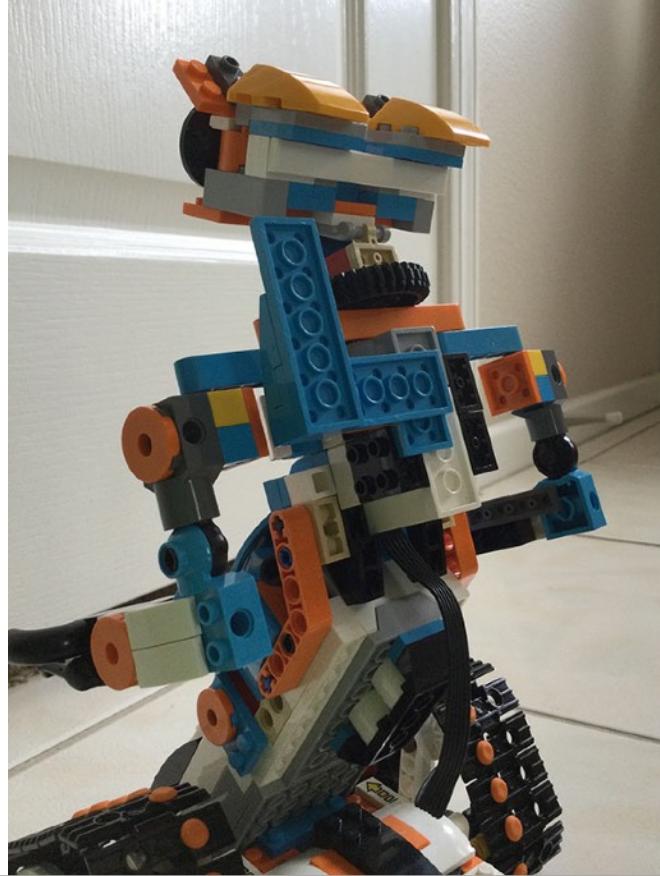
Attach to his back.



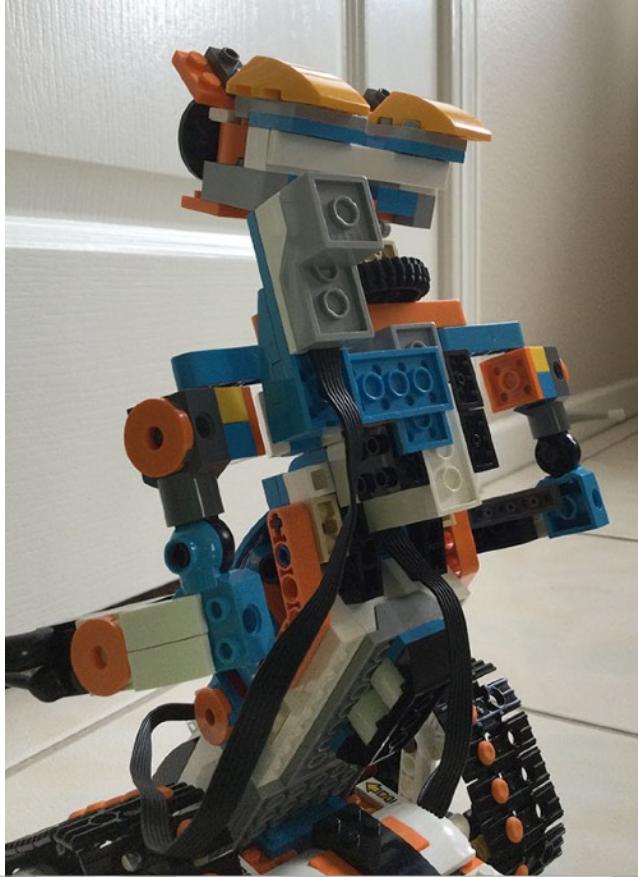
Add blue 1x2 plate
inside

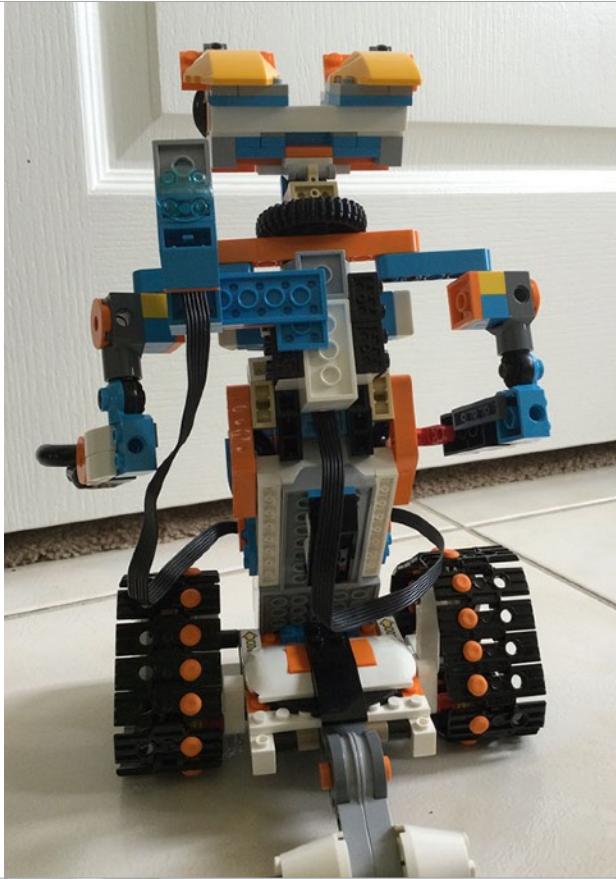


Add blue curved
2x4 brick with
cutouts.

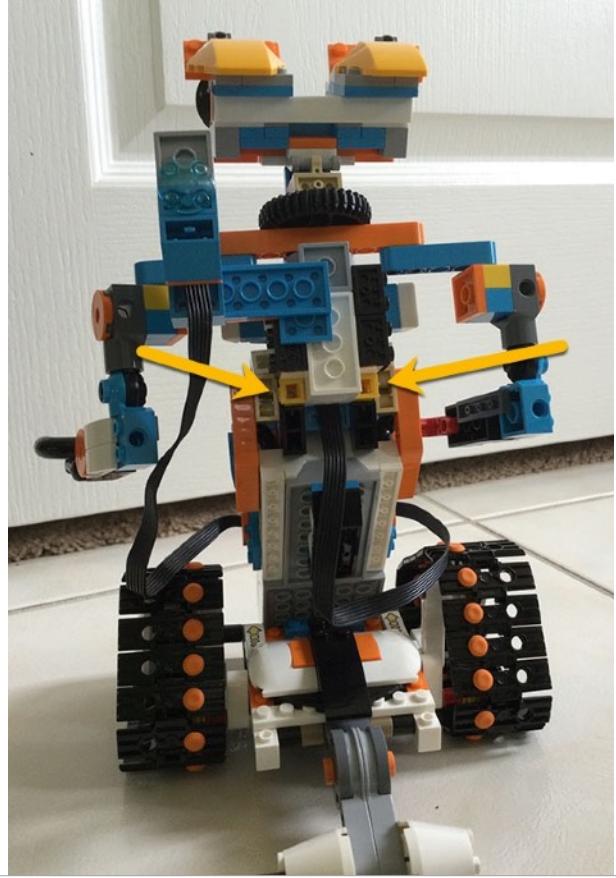


Attach distance
sensor.





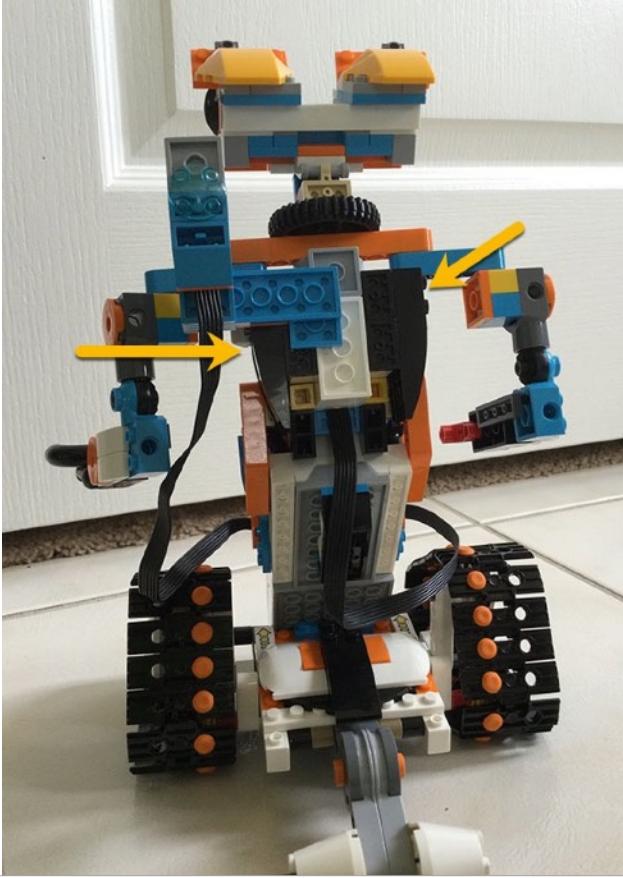
Add 2 yellow
1x1 bricks with studs
on the side.



Add 2 black
2x6 curved bricks



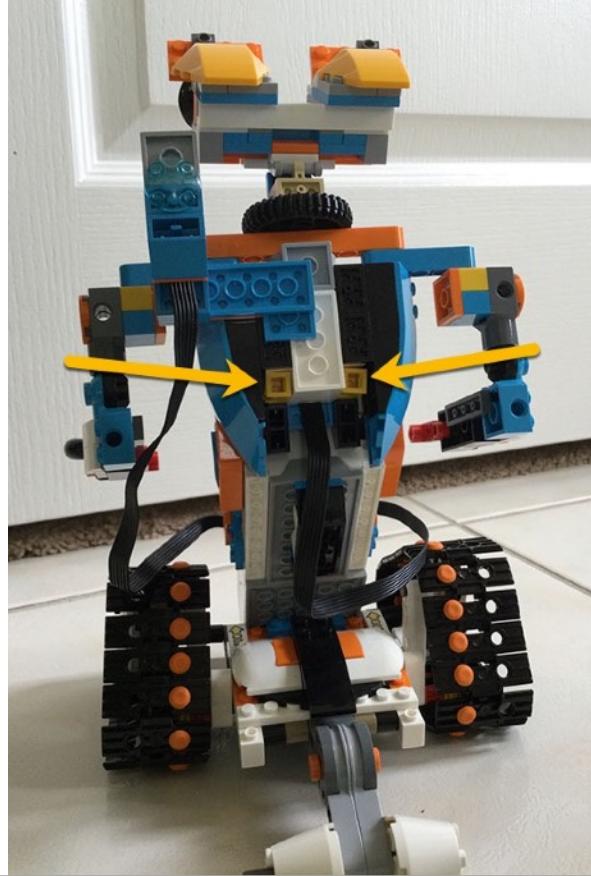
Add 2 black
1x6 curved slopes
right next to the
previous ones.



Add blue curved
bricks to form outer
body.



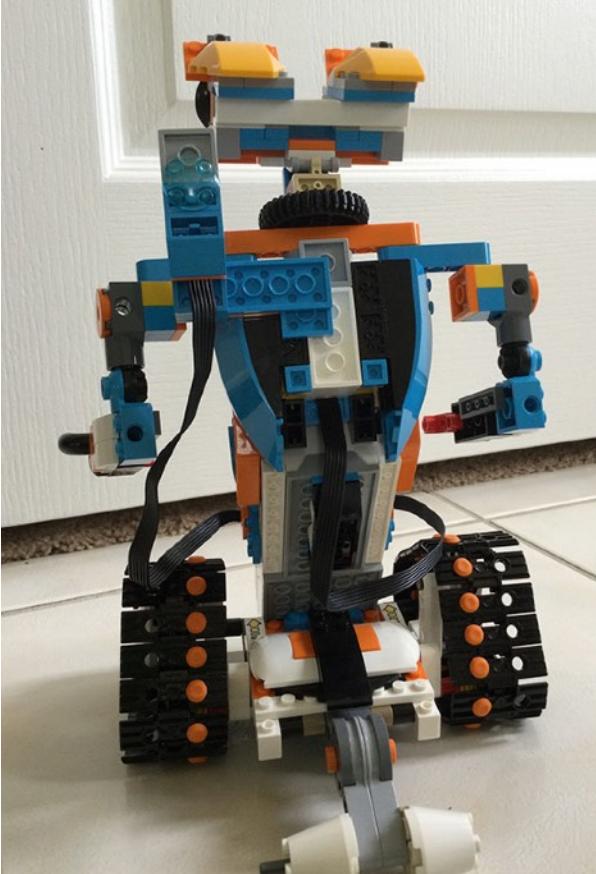
Add 2 more yellow
1x1 bricks with studs
on the side.



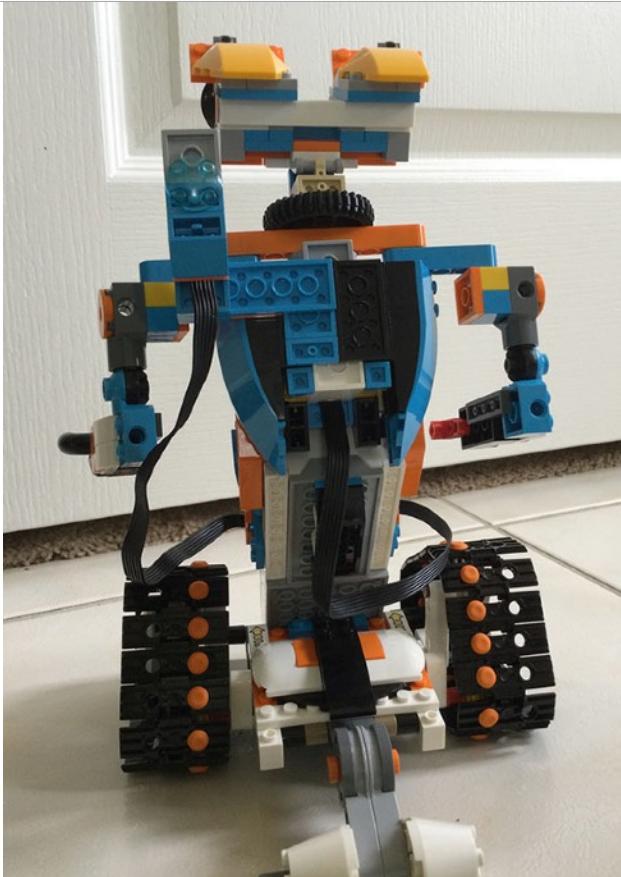
Add 2 blue
1x1 plates.



Add 2 more blue
1x1 plates.



Attach black
2x4 plate and
blue 1x2 plate
to back for extra detail.

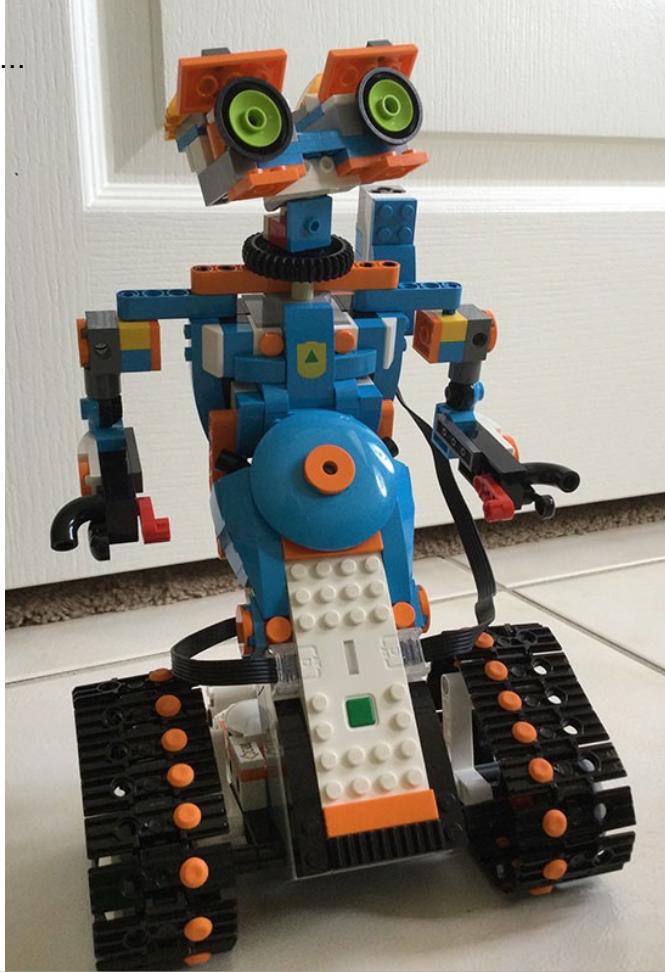


Add 2 white round
2x2 plates, with gray
“wires” and a dark gray
1x4 plate.

Also, add a 1x2 dark
gray plate just above
the white pieces.



All done!
Now, let's program him...

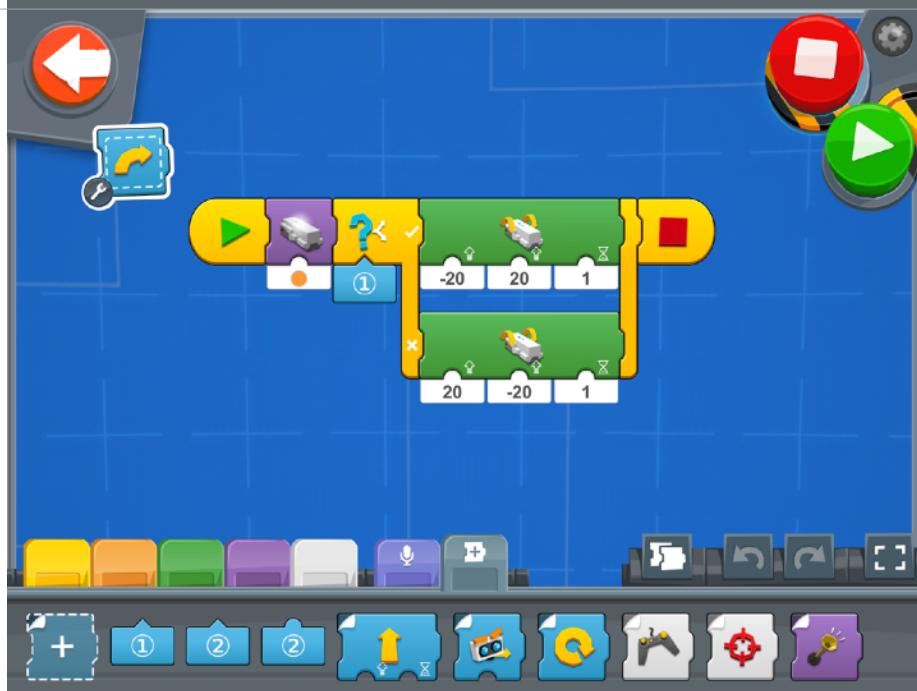


Programming Instructions

First,
create
the
FORWARD
block.



Next, create
the LEFT
and RIGHT
block.



Create the
HEAD TURN
block.



Create the
SPIN
block.

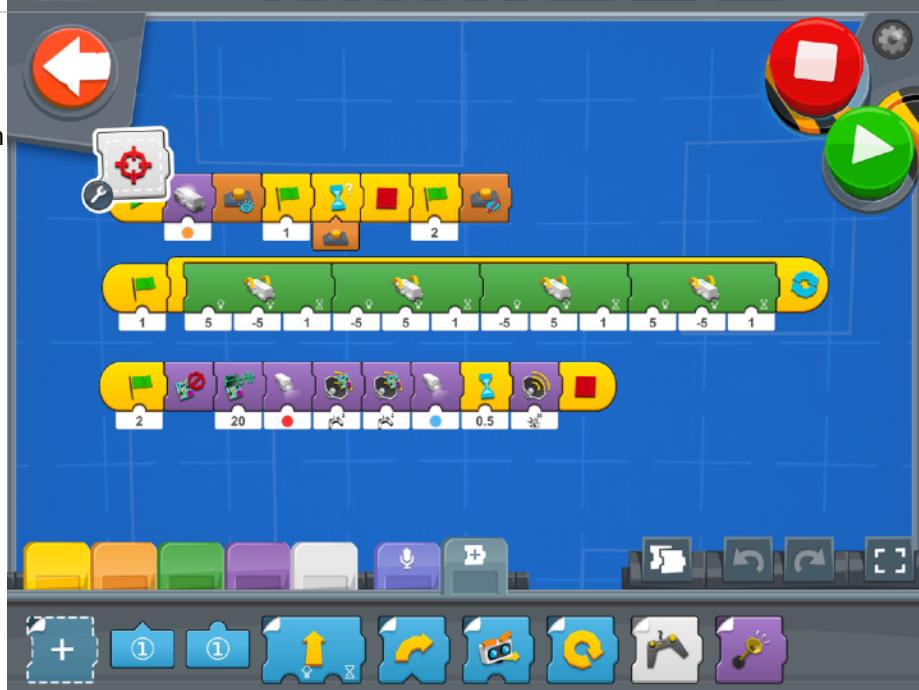


(Optional)
Create a
JOYSTICK
CONTROL
block.

(This block
is not used
in any of the
following
programs,
but it is a
fun addition
to your own
code.

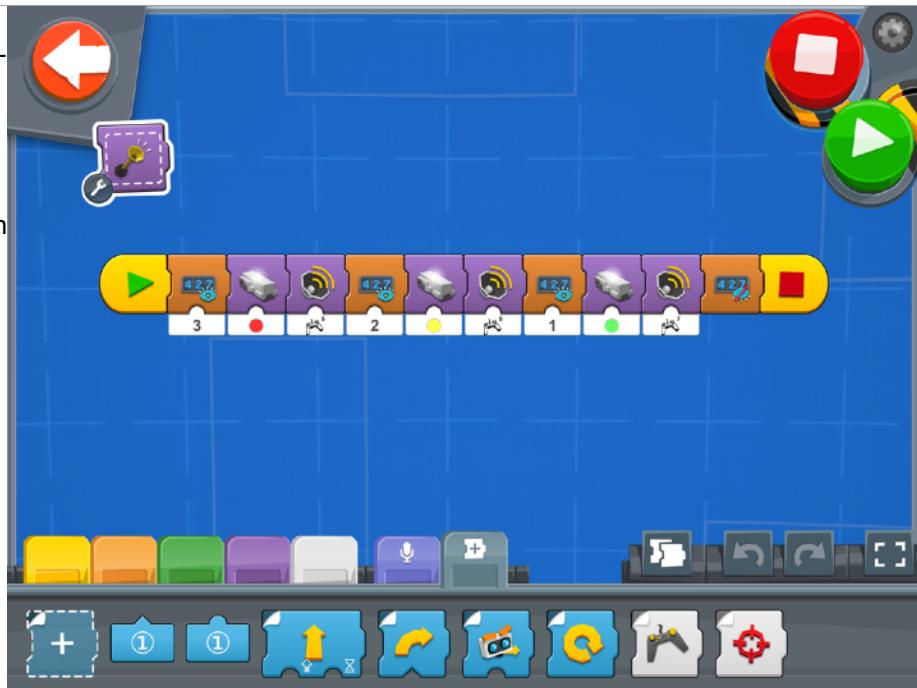


Create
AIM and
SHOOT
laser cannon
block.



Create a
STOP LIGHT
SEQUENCE
block.

This creates
a countdown



All blocks are now completed. Now we just need to create the programs!

This one is
called, "MAL-
FUNCTION,
NEED
INPUT"

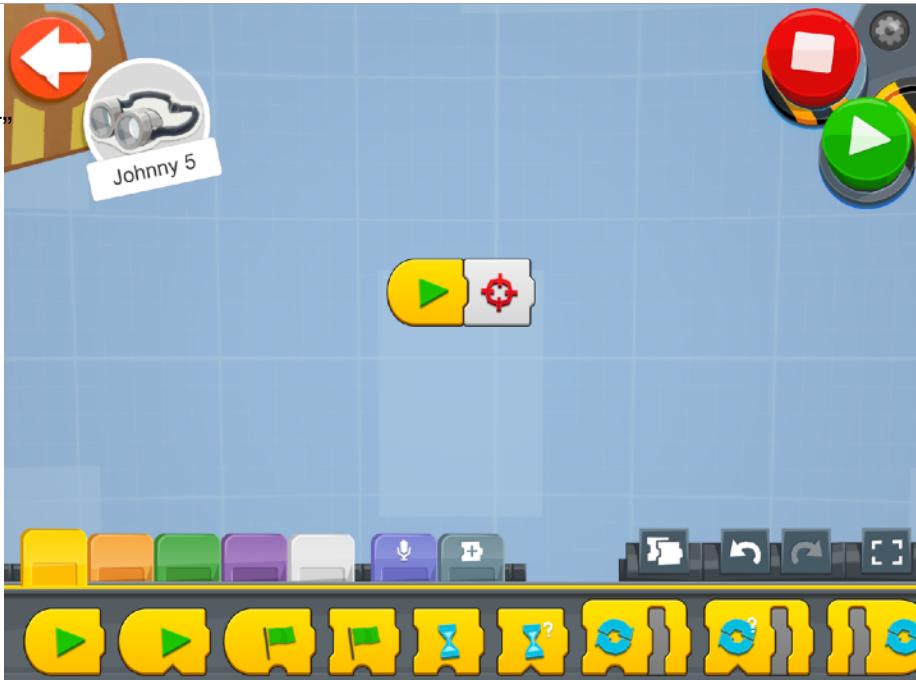
It uses code
blocks we
created
earlier.

Trigger it
by waving
your hand
over the
sensor.



This one is called, "READY, SET, SHOOT"

It uses the code block we built earlier.



This one is called, "AUTONOMOUS ROBOT".

It uses code blocks we built earlier.



Feel free to make your own programs for this model!
I would love to see what you come up with.

-Rowan