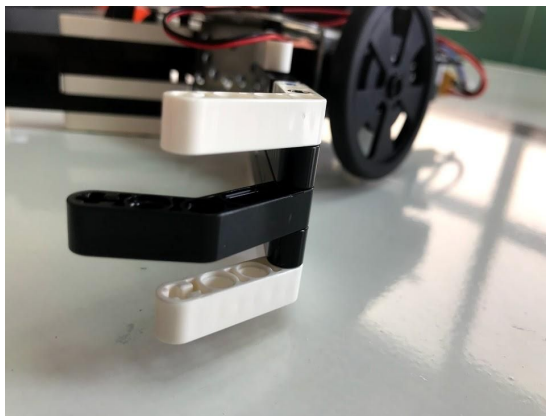
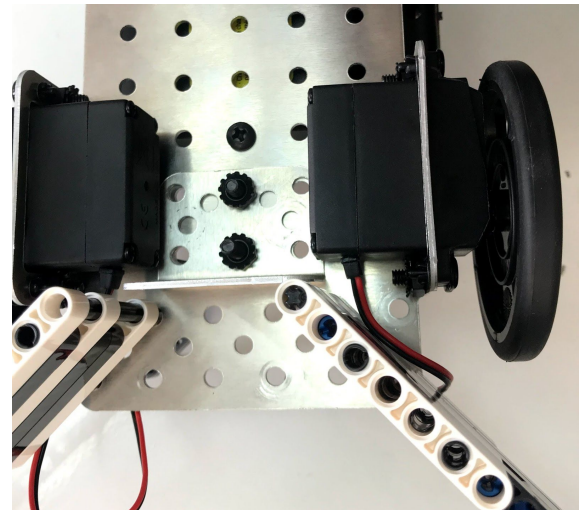


Mechanical Design Period 2

Drivetrain:

To the right is the picture of our drivetrain. The connection between wheels and motors is direct. We thought about adding a gear system, but then we realized that our robot doesn't need a gear system for its tasks. The Drivetrain is located at the front which allows us to put a blocker between motors. This location of drivetrain simplifies our task in canceling the ways for robot's carriage to go under the robot.



Effector:

We did not need the effector, because our robot, doesn't need an effector for its tasks. This makes the job for our programmers easier, which will help us to save time and concentrate on other tasks.

Sensor Mount:

The picture on the left shows how we mount the camera to our robot. This camera will help us to identify which building is on fire to send supplies to the right building. We choose this position for the camera, because, at the front, we can identify building on fire with more precision.

Data:

Issues with robot while running 25 attempts	
1) Robot crashes in to the building	5) camera sees wrong item with same color
2) Battery falls from the robot	6) Camera doesn't start
3) Motor unplugs during the moving of the robot	7) Camera Freezes
4) Claw closes	8) Screen doesn't switch on
9) camera falls out	10) claw crashes and breaks

We constructed our robot, hoping that it will work well. Soon after several tests, we realized that there are some issues. This chart shows how many times each issue was standing on our way.

Data Evaluation:

The data represents the number of times something went wrong. The data shows that some big mistakes were made only once, but the smaller ones were made more often. Some mistakes made our team very sad, but as soon we found a way to stop them from happening our progress became faster.

Modified system:

We made the way our robot is constructed more professionally, so it wouldn't fall apart again. We placed the camera a little bit closer, so it would recognize colors more precisely. We moved the claw from the ground, so it would allow motors to work. We worked with the position of the motors, so they wouldn't turn in the wrong direction and we added a small claw to the big one to capture stuff. We made sure that all of the elements were connected and we added additional screws to keep everything in its place. We changed moveable claw to the one which cannot move.

