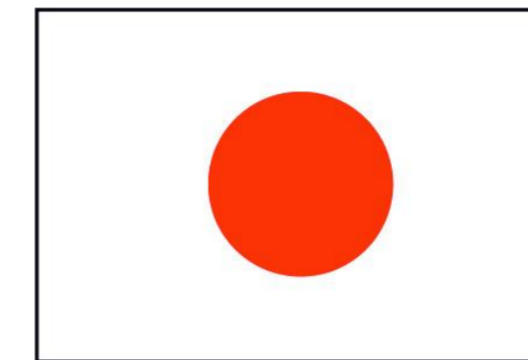


Rescue A secondary

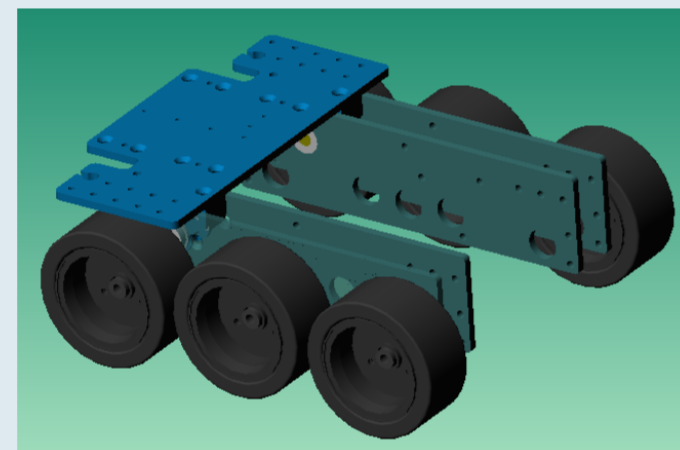
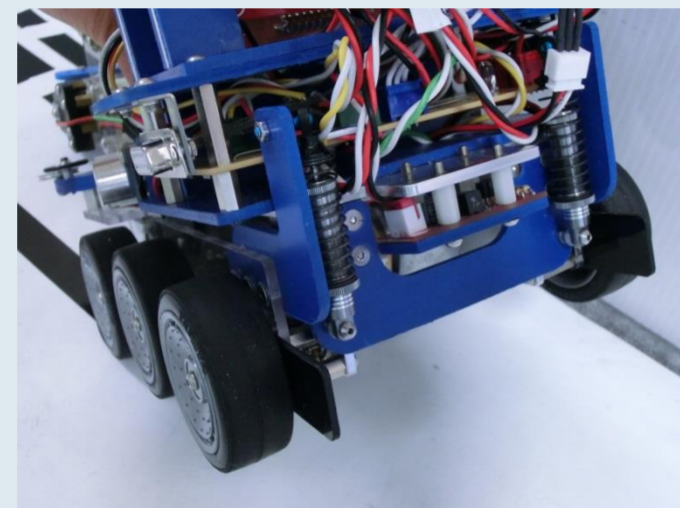
STEPY & LOCK ON



Japan

Six-Wheel Drive

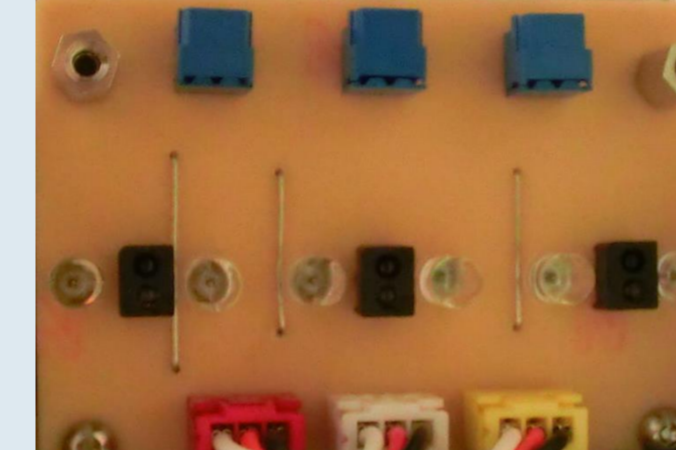
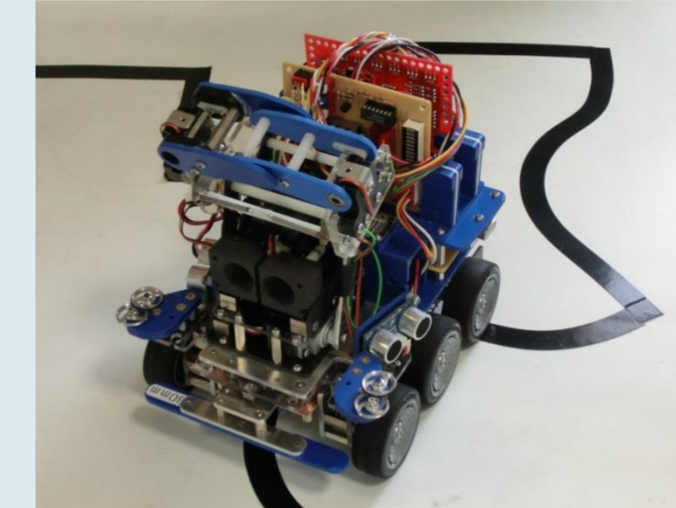
The robot has the six-wheel drive which consists of tow motors. Each motor drives three wheels using a rudder chain. Each three wheel set has independent suspension centering on a front wheel.



Movie URL
<http://youtu.be/KGdMtLgwYBM>

Line Trace

The robot has a proportional control using two IR sensors for line tracing. The IR sensor in the middle is used to search the gap.

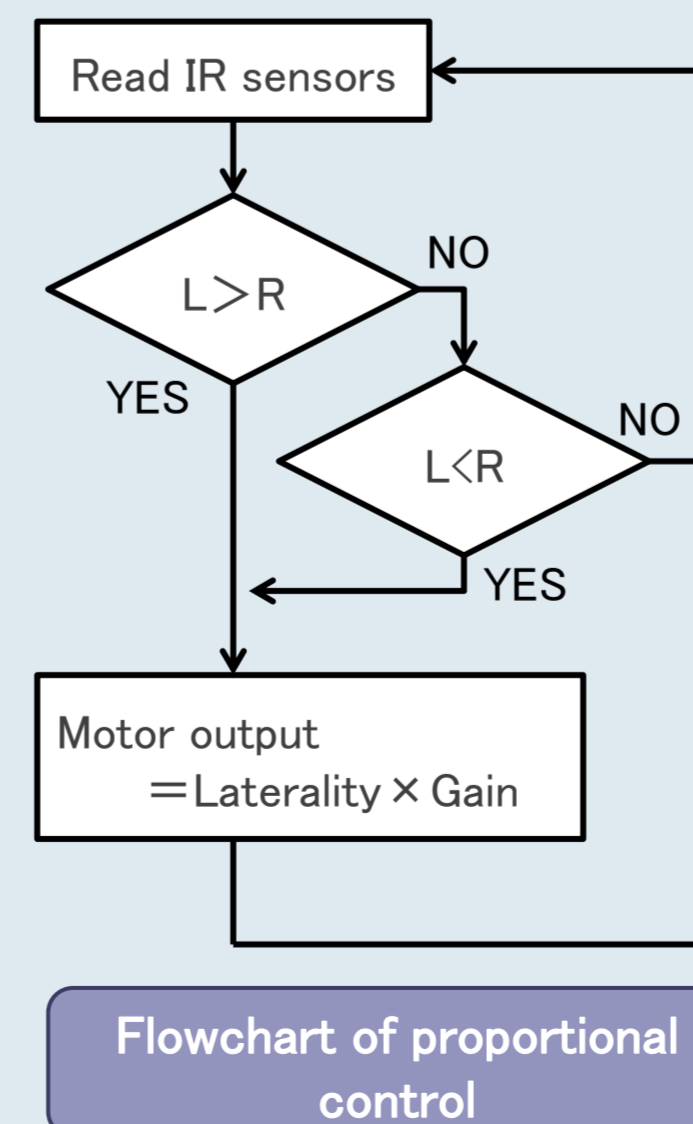


IR LEDs are arranged on both sides of IR sensors in order to widen the area seen of the IR sensors. Thus, the IR sensors adapted for proportional control, using the left and right sensors.

Program

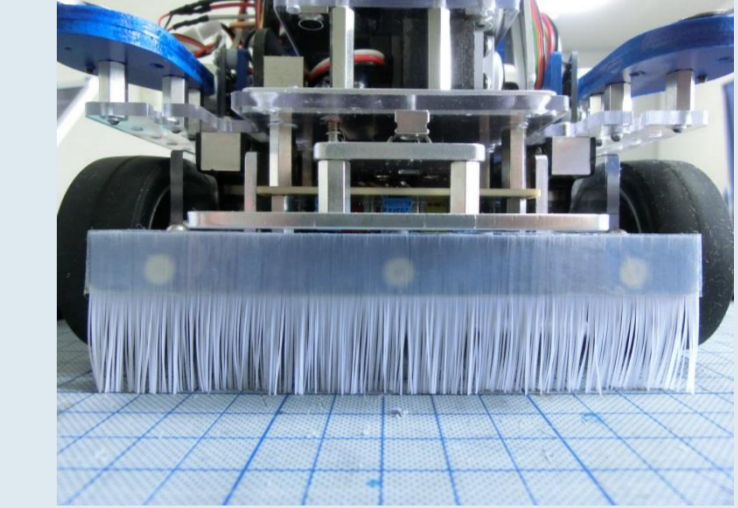
Program of the robot employs a proportional control for the ultrasonic sensor and line tracing. As a result, the motion of the robot was smoothly and more accurate than ON / OFF control.

The robot is equipped with an encoder to control the straight movement.



Stick Countermeasures

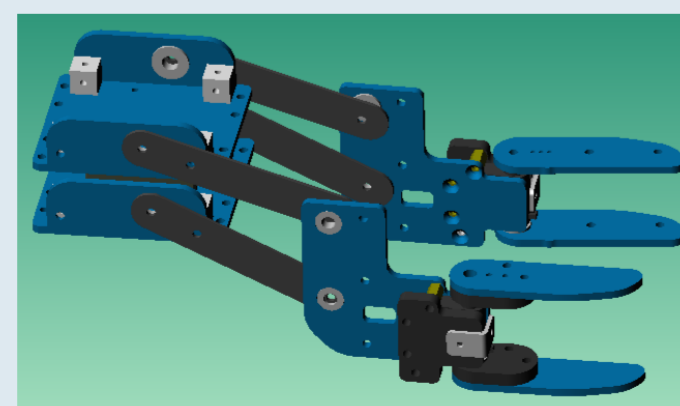
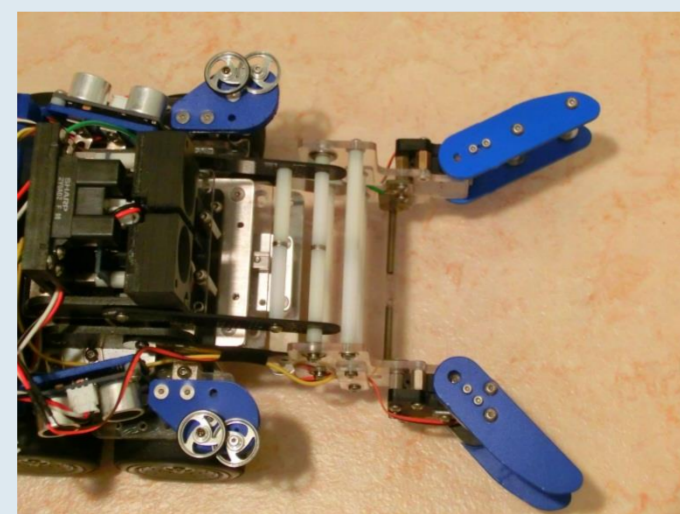
The robot removes a stick using brush. This brush is carefully hand-crafted by team members.



Movie URL
http://youtu.be/_CD_9opnzL0

The Arm

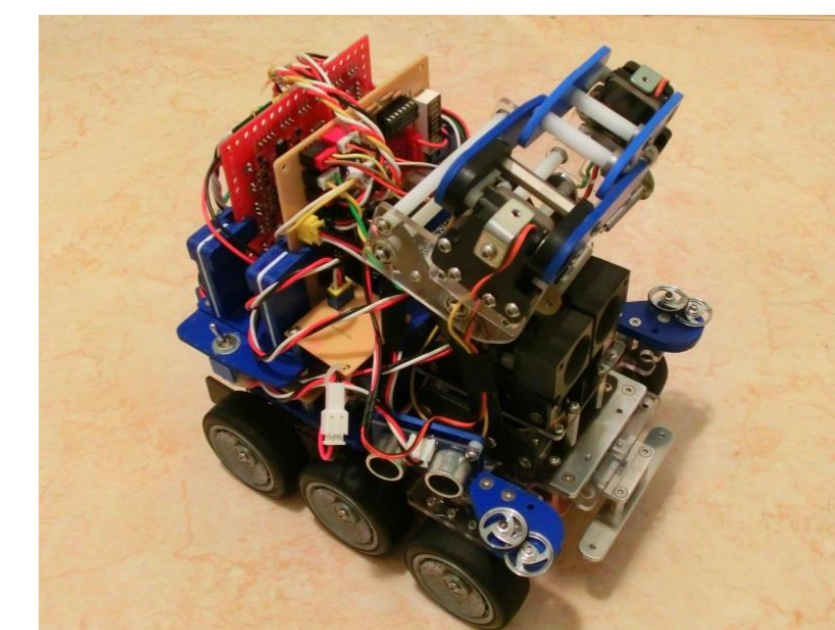
The robot has an arm to hold disaster victims. The arm consists of three servo motors. The big servo motor is used to raise and lower the arm, and the two small servomotors are used for opening and closing the grabbers. The arm uses a four bar link. Thus, it is possible to lift the victims horizontally to the height of the goal.



Movie URL
<http://youtu.be/5wieLLGodGg>

Sensors of our robot :

IR sensors	×3
Color sensor	×1
Ultrasonic sensors	×3
PSD sensors	×2
Gyro sensor	×1
Direction sensor	×1
Touch sensor	×1
Conduction sensor	×1



Blog URL
<http://kamenokokko.blog.fc2.com/>

