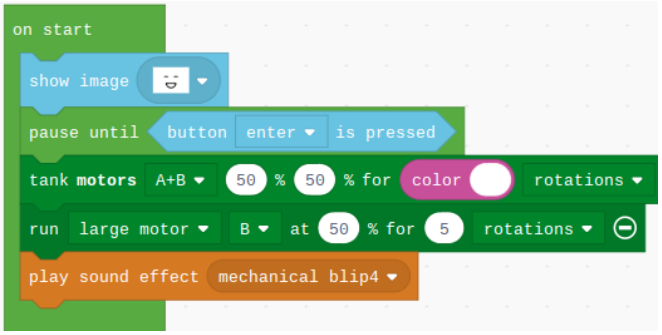
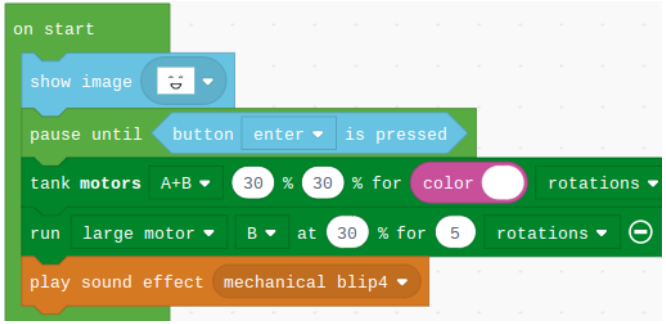
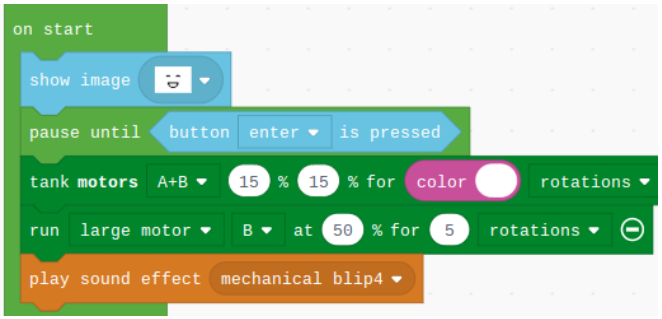
Controlled testing (remote)

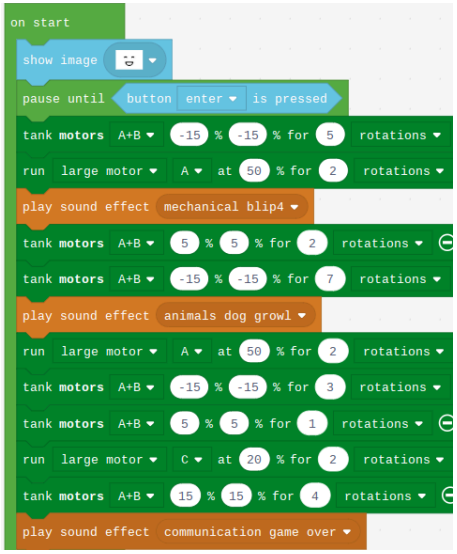
Trail	Behavior	Problem	Solution	Change made
1	The robot skeeted as it tried to move forward or backward. It eventually was not able to drive in any direction after a minute of testing.	The robot had trouble moving forward because the non motorized wheel was loose and rickety	Change wheel design to a 4 wheel system	1 - switched to a 4 wheel system with 2 large wheels and 2 - smaller wheels, it was too low to the ground 2- Switched to a 4 wheel system with 4 large wheels and a way to lift up ball cage
2	As the robot moved around it was able to move forward and backward with ease and unable to turn very well	The small rubber wheels on the bal cage caused too much friction when the robot tried to turn	Change the 2 rubber wheels to ball casters	The wheels were changed to 4 ball casters at the four corners of the cage
3	After testing the lifting mechanism of the cage the cage was very unstable (it could shift/turn its frame) and the ball casters made it very hard for the cage to be lifted	The cage was unstable and it could not be lifted	Add cross beam support to the cage and remove some of the ball casters and/or switch the gear ratio	1 - added cross to the arms lifting the cage, this greatly reduced any turning/shifting 2- removed two ball casters because a new gear ratio could not fit on existing support of the large motor used to lift the cage (this test is close to the siege)
4				

Testing first line detection and turn

Trail	Code	Behavior	Problem	Solution
1		The robot displayed the smile and waited for the button to be pressed. Once the button was pressed the robot drove forward at a fast pace continuously until the color sensor detected a white line. Once the line was detected the robot stopped the motor b and continued to move motor a	The robot was to fast so it started turning about 3-5 inches after it detected the line. The robot turned the wrong way	Slow the tank block speed to 30% and change motor a on the turn block to motor b
2		The robot displayed the smile and waited for the button to be pressed. Once the button was pressed the robot drove forward at a slower pace than trail one but still too fast. The robot drove right over the white line and got stuck on the ramp. Once I moved the robot and set the color sensor over the white line it was detected and motor B started moving on its own but was unable to move the robot.	The robot was moving too fast to detect the white line. Motor B did not have enough power to move the robot.	Slow the tank block speed to 15% power and increase motor B block power to 50%
2.5		Batteries Changed		

3		The robot displayed the smile and waited for the button to be pressed. Once the button was pressed the robot drove forward at a slower pace than trail two and move at a good pace (very slow, it takes several seconds to move about 30cm). It did not detect the light, the turn started when I had picked up the robot and had held it for several seconds. After the 'turn' the robot made a mechanical noise signaling the end of the program	The robot did not read the line and turned 'randomly'	Ask for help / put together a blind program. *I only have a few days left until the siege

Testing a blind run of the robot, it moves in a U

	The robot displayed the smiley face and waited for the enter button to be pressed. Once the enter button was pressed the robot drove forward slowly, it reached the edge of the ramp and then turn roughly 270 degrees. The robot made a R2D2 noise, then the robot drove slowly towards the big blue ball. It then turned roughly 180 degrees and growled. It then headed towards the castle at a very wide angle. It caught one of the blocks and then the program ended with a mechanical noise.	The distances and degree of turns are off by a lot.	I do not have time to improve the program from here, I would decrease the rotations on the forward movements and the turns