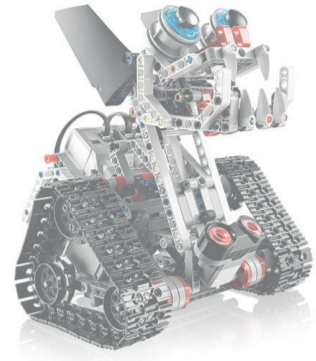


Program Descriptions

Znap

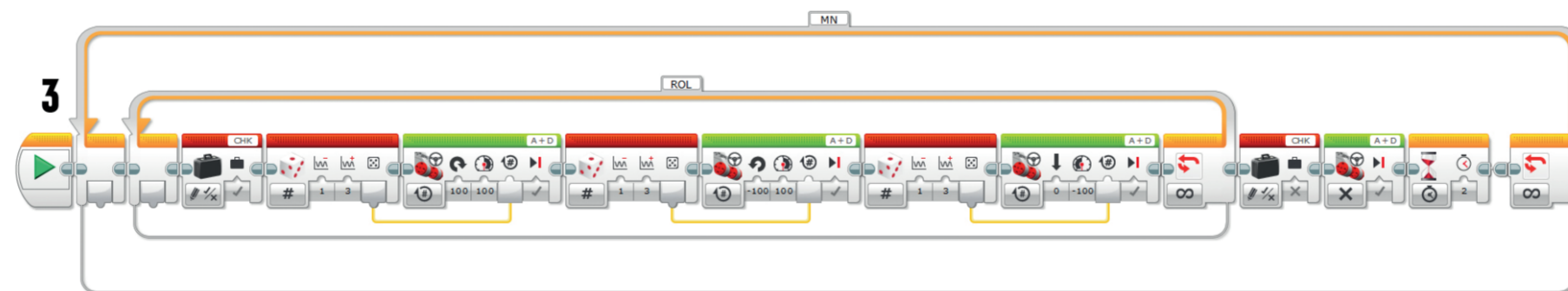
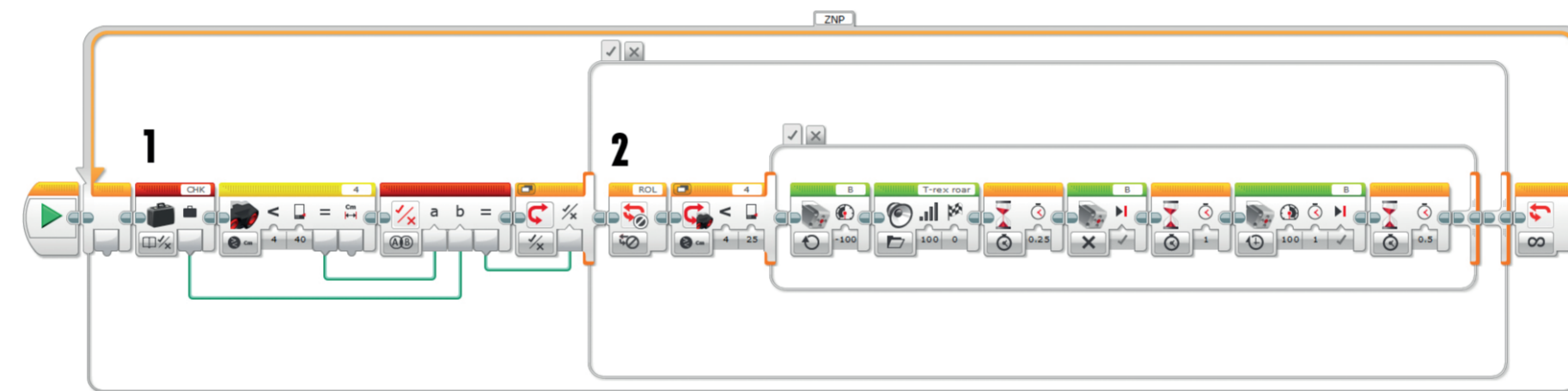


Overview

Znap is a reactive robot who will drive around in a small pattern and react to an object near him. If you are close, he will warn with a hiss and if you come closer he will do a full bite.

1 Loop ZNP controls the biting function control. First, Variable CHK and the Ultrasonic Sensor are checked with a Logic Block to see if both are true. The Ultrasonic Sensor is compared to 40 cm. If both are true, the true case of the switch block continues; the false case is empty.

2 In the True Case, a Loop Interrupt block is used to stop Loop ROL. This ensures the robot stops moving at any point in its movement pattern. The Ultrasonic Sensor is then checked again at 25 cm. If it is not closer than 25 cm, the robot will hiss, and if it is closer, the robot will bite.



3 Loop MN controls the movement of the robot. Beginning with Loop ROL, the Variable CHK is set to true to ensure it will be ready to bite when moving. The move pattern is engaged and waits interrupted. Once it is, the motors are stopped and Variable CHK is set to false so it cannot do any action other than biting. Two Seconds at a wait block make sure there is time for the robot to reset.