**Cleaning Tank
State Diagram
Activity Two**

Robot starts in state MOVING

MOVING

SEARCHING

AVOIDANCE

BATTERY EMPTY

FULL

Object avoided and no target set

Object avoided and target set

Found plastic in radius
Or given plastic location by auction

Plastic picked

Path blocked

Path blocked

Only have enough charge to reach batter

Only have enough charge to reach batter

5th plastic piece picked

Charger reached - battery recharged

Bin reached and hopper emptied