

# Out Of Batteries

Rocky Savoeng

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## Overview

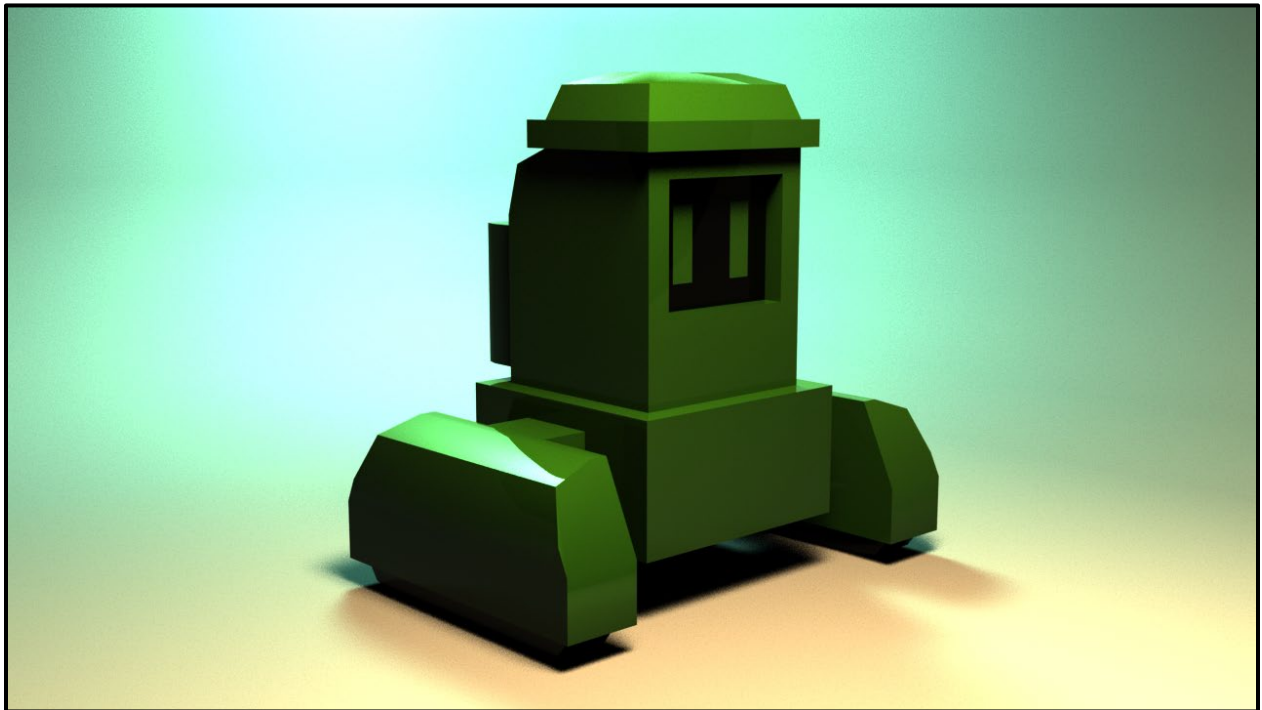
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Out of Batteries is a simple, battery powered game where the player is the antagonist. Set in a Factory, robot workers need to keep themselves charged and ready for work, but recently, their homely charging stations have changed. Batteries have begun to get stolen, and these robots are not energized.

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## Player

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## Player Objective

In Out of Batteries, the player plays as a rival robot, sent as a secret agent to sabotage the Factory. To do so, players must disable all the charging stations by taking the batteries out of them. (In gameplay batteries are taken from stations by being near them, and pressing E)

There are four charging stations with 2 batteries each. When a battery is taken from a charging station, the remaining battery cannot be taken out until 5 seconds have passed.

Once the player has collected all 8 of the batteries from the stations, they will win.

The more batteries the player has by the end of the game, the higher their final score when the game ends.

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## Player Loss

While stealing the batteries from the Factories' charging stations, the player can get caught by the Factories' robots.

Players can take 3 hits before they are caught and can be caught up to 5 times while playing. Once the player is caught, they will be given four locations to spawn from and will respawn where they've chosen. Additionally, when caught, the player will lose all the batteries that they have.

If the player gets caught 5 times, they will lose.

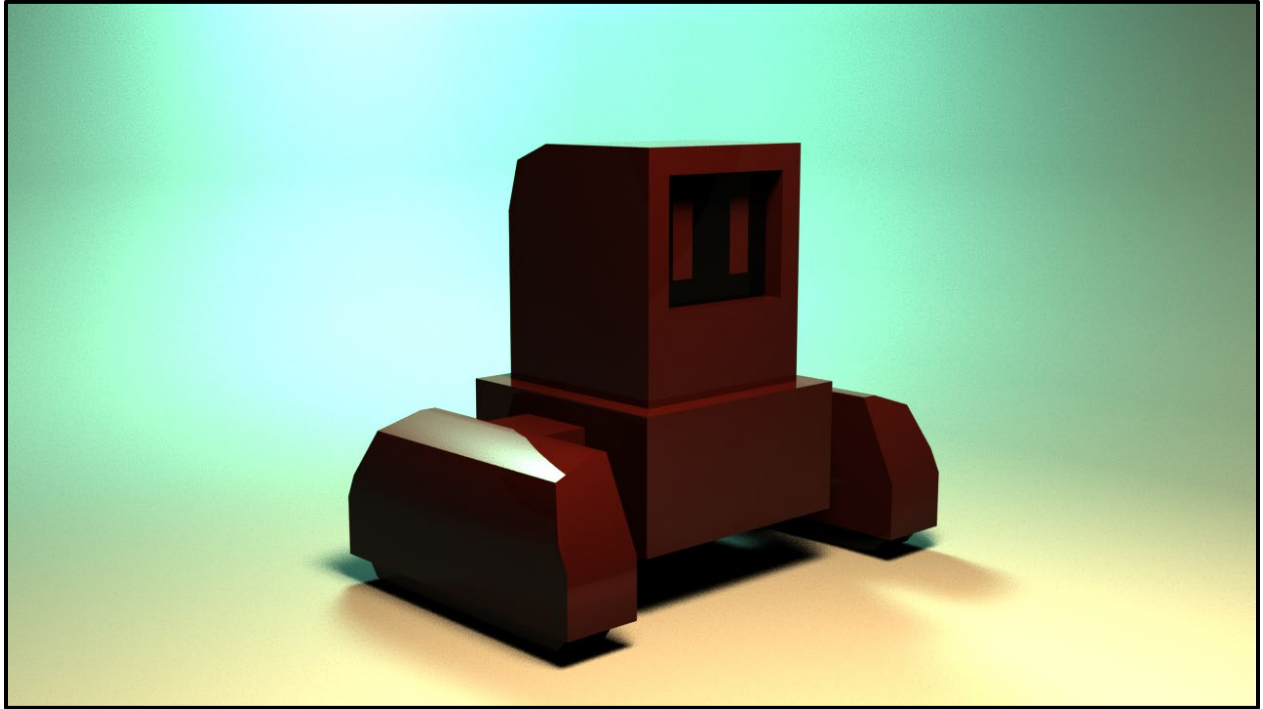
## Score

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When the game ends from either win or loss, the players will be shown their final score.

- For each battery taken from a station, the player will gain 50 points.
- For each battery that the player has when the game ends, the player will gain an additional 100 points.
- For each time the player is caught by the Factories' robots, the player will lose 25 points.

## Artificial Intelligence

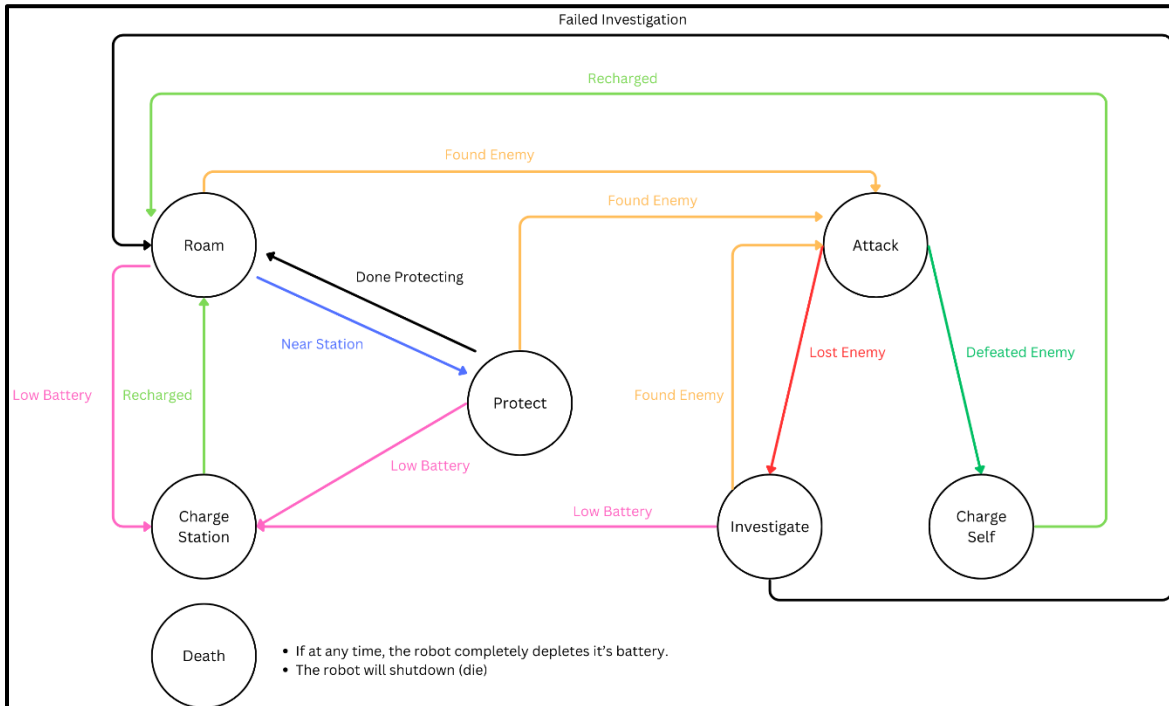


### Worker Robots - Finite State Machine

Assigned with no tasks, worker robots will roam the Factory and keep themselves busy. While roaming, if the robot finds the secret agent, the robot will attack the agent. If the robot catches the secret agent during their attacks, the robot will recharge themselves. Replenishing some of their own batteries. This replenishment goal is prioritized highly by these robots, because they would rather replenish on the spot than head to a station. If the robot fails to catch the secret agent during their attack, they will investigate the area where the agent was last seen. Additionally, if the robot stumbles upon an active charging station while roaming, they will protect it for some time. While protecting the station, if the robot spots the secret agent, the robot will attack them. At any time while the worker robot is investigating, protecting, or roaming, they will head to the nearest charging station to charge themselves if their battery runs too low. If the robot's battery depletes completely, the robot will shut down on the spot.

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## States:

- **Roam** – Randomly wander the level by selecting waypoints randomly.
- **Attack** – Chase and attack the player once in range.
- **Investigate** – Wander around the point the player was lost
- **Charge Self** – Stay stationary and regain battery
- **Charge Station** – Head to the nearest charging station and charge until full
- **Protect** – Wander around a charging station for some time.
- **Death** – Stop all actions

## Transitions:

- **FoundPlayer** – Used when agent spots the player
- **NearStation** – Used when agent is near a station
- **SearchPlayer** – Used when agent should search for player
- **FailedSearch** – Used when agent has failed their player search
- **DoneProtection** – Used when agent has finished protecting a station
- **LostPlayer** – Used when agent has lost the player
- **BeatPlayer** – Used when agent has defeated the player
- **Recharged** – Used when agent has replenished itself
- **LowBattery** – Used when agent has reached a low battery
- **NoBattery** – Used when agent has no remaining battery