Roaming Rover

Program the rover to move around the room using the ultrasonic sensor to avoid running into obstacles. If the rover detects an object, turn away from the object and keep moving forward.

Relevant Coding Skills

↺ Iteration

Relevant Rover Concepts

⚙ Motors   📡 Ultrasonic

Exercise Setup

When running the exercise, it can often work well to have a small obstacle course setup with flat surfaces like boxes and books for the rover to detect. The ultrasonic sensor works best against flat hard surfaces as it is detecting reflected sound waves. Angled or soft surfaces are harder to detect.

Here's Our Approach

Stage 1

Use an **IF statement block** with a **logic comparison block** to check if the **ultrasonic sensor** detects an obstacle in front of the rover.

Stage 2

Use the **IF ELSE block** to **turn** when an obstacle is detected and drive forward when it is not detected using **motor blocks**.

Stage 3

Repeat this behaviour by wrapping everything in a **while loop**. While true will repeat forever.