

GRAPHICAL INSTRUCTION LANGUAGE

IA 1 58 MINDSTORMS PROJECT

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Overview

- We aimed for a robot that can read and then execute given instructions.
- Instructions are read using light sensor.
- After reading, robot interprets given code, causing it to move or make sounds.

Encoding



BWD



Encoding cont'd

- Each instruction has 4 bits.
- 6 movement instructions.
- 4 sound instructions.
- 4 delay instructions.
- 2 repetition instructions.
- Movement and sound instructions are executed in parallel.

Hardware



Hardware cont'd

- Four wheel steering car.
- 2 light sensors on the sides.
- Steering ensures continuous reading.

Calibration

- Two-color line is followed.
- Car needs to calibrate its light sensor to current light conditions.
- Reading ends after timeout.

Thank you for your attention.