OPERATION: DISAPPEAR

Tanya Peifer
Destiny Modeste
Daphne Wang
Challenge

You…
- Are a special agent working undercover for the president
- Programmed the Create Robot to steal Intel

Robot…
- Was discovered stealing Intel
- Was programmed to turn invisible in dark places
- Does not know how to find dark places

Mission…
- Program robot to find a hiding place
- Flash LED lights when hiding
- Sing if discovered
Design

Drive and Sing

Check Bumps
- No Bump
- Bump
  - Bump Left/Right/Front
    - Bump Left
      - Turn -45 degrees and drive
    - Bump Right/Front
      - Turn 45 degrees and drive
- Check Light Sensors
  - Light >= 760
  - Light < 760
    - Stop and Flash LED Lights
      - If exposed to Light >= 760
- Picked Up
  - Sing
Problems and Solutions

- Problems:
  - Dealing with the difference with the two light sensors properly

- Solutions:
  - Defined variables for the separate sensors and defined actions for the various situations (light, light light, dark ... etc)

```plaintext
a = ReadLightSensor(Group8, 2);
b = ReadLightSensor(Group8, 1);
c = a - b;

if c > 50 && c < 100
    SetFwdVelAngVelCreate(Group8, 0.3, 0.1);
    PlaySong(Group8, 1)
end

if c > 100 && c < 150
    SetFwdVelAngVelCreate(Group8, 0.3, 0.3);
    PlaySong(Group8, 1)
end

... etc.
```
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The End
Any Questions?