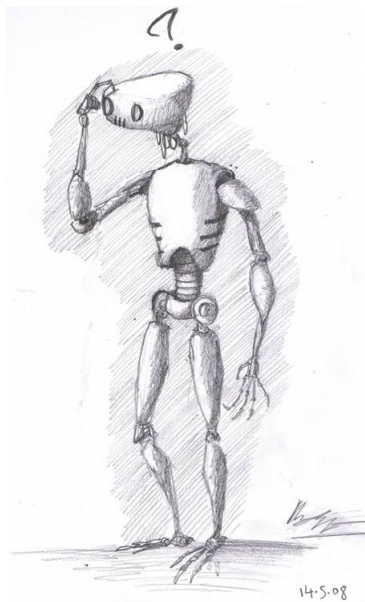# Open Challenge: Auto-Calibration of Multiple Cameras

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Motivation

- Few teams use Top Camera
- Top camera often perceives different colors than bottom, even with exact same camera settings
- Different Naos have different color perceptions
- Takes time to tune more color tables
- How to *efficiently* address this problem?

Auto-Calibration Tool

- Utility to auto-tune camera settings – brightness, contrast, hue, etc
- Optimizes camera settings via Hill Climbing
- Each iteration compares the current image against a static saved image
- Scores based on color overlap
- Has been used to tune Top Camera to match Bottom Camera, off-color robot to match rest of team
- Potentially able to create one color cube and tune cameras on rest of team to use that single cube
- Lets see a demo!