



Team 29/1A: SoutheastCon Hardware Competition

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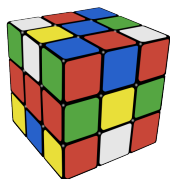
Background

Purpose:

To win the SoutheastCon 2015 Hardware competition.

Winning robot must:

- Draw IEEE on an Etch-A-Sketch
- Turn one row of a Rubik's Cube
- Play Simon for 15 seconds
- Pick-up a single playing card



Semester Objectives:

For this semester our goals are:

- ✓ Finish Prototype
- ✓ Finish Final Design
- ✓ Win Local Competition
- ✓ Win SoutheastCon 2015.



Approach

For Movement

- IR Sensors for reliable line following
- Omni Wheels for multidirectional driving

Two sides of the robot used for challenges, each side with a unique end effector:

- Etch-A-Sketch and Playing Card
- Rubik's Cube and Simon Says

Each side includes pincers for alignment and power screws to move the end effector up and down.

Results

- ✓ Team won local competition.
- ✓ Robot can complete tasks reliably.
- ✓ Line following works reliably.

Thanks

The team would like to gratefully acknowledge Ramiro Velasquez and INNOVatek for their donation, as well as CISCOR/STRIDE Lab for the use of their laser cutter.

System Overview

