Driving Dashboard Simulator

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Motivation

- Gaming world → actions emulated by keyboard buttons
- User experience compromised → NOT MUCH FUN!

Most simulators online:

- **Pros:** Finished Polished products
- **Cons:** Costly, cheaper ones lack functionalities

Affordable + Effective driving simulator hardware

= Better User experience!
Hardware and Software components Used

**Hardware**

- Raspberry Pi 2
- Arduino
- Rotary Encoder
- Analog Stick
- Push Button Switches
- USB Camera

**Arduino IDE**

- Sensor Input
- Communication with RPi

**Software**

- Python 2.7 (On Host Computer and RPi2):
  1. Key Emulation Module (Server Module)
  2. Speech Recognition
  3. Eye and Head Tracking
  4. Client module
  5. Email module
  6. SMS module
Integration of Hardware and Software
Highlights

➔ Custom Made Hardware - Steering, GearBox, Brakes, Accelerators, Horn, Wiper, Blinker
➔ Extended View Tracking
➔ Music Player
➔ Blink Detection
➔ Email

**BONUS:** SMS Service!