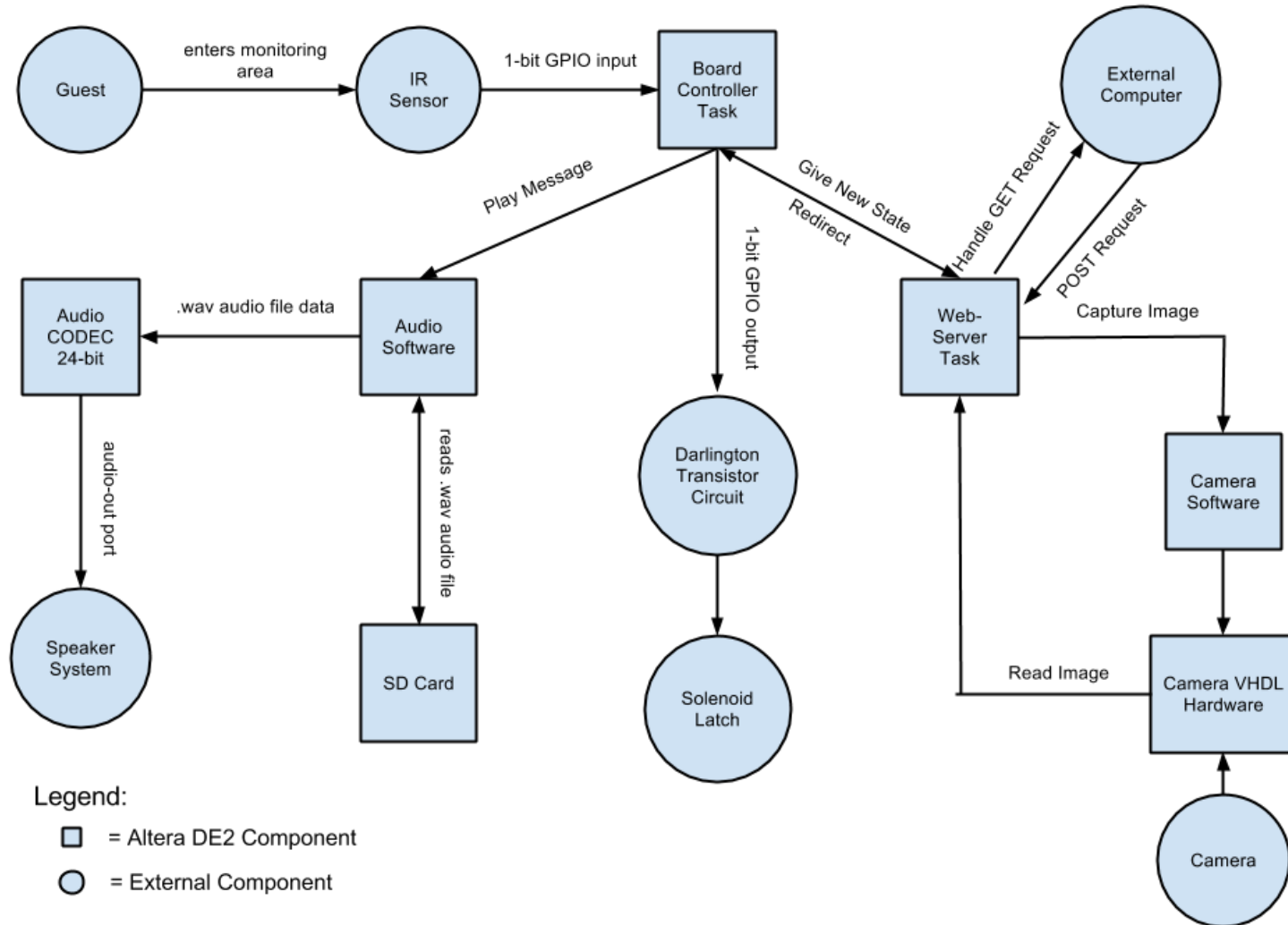# Automated Receptionist
Andrew Maier and Sila Luckanachai

Functionality

- Detects and plays an automatic greeting upon the arrival guests
- Photographs an image of the guest and passes it to the onboard web-server
- Updates the personnel-side browser to show guest image
- Prompts personnel to grant/deny access within a designated time interval
- Unlocks door upon access approval
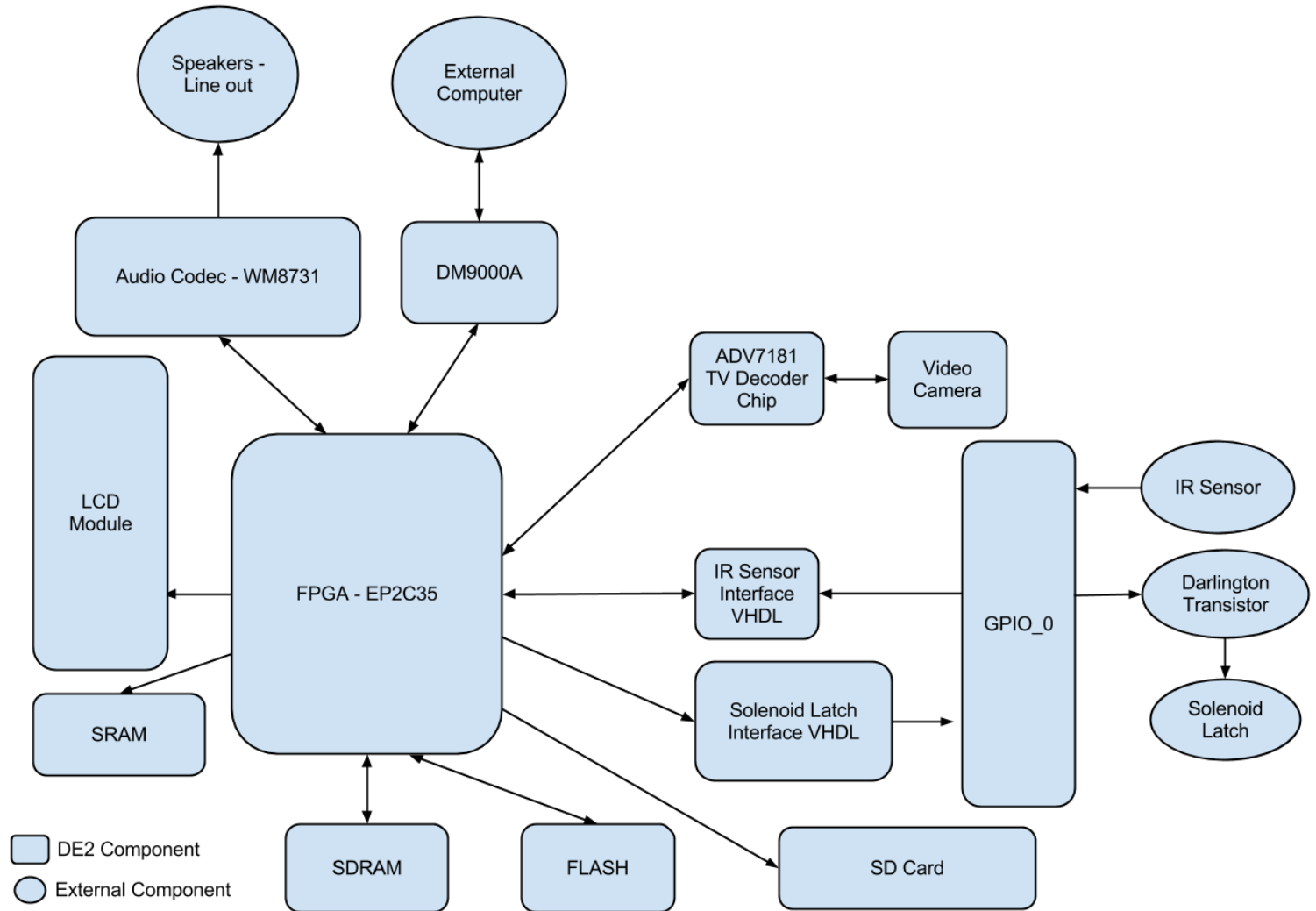 Remains locked upon access denial

Functionality

Hardware Design

Components
- Sharp IR Sensor -- 15 cm. range
- JVC Video Camera
- Kingston SD Card -- 2 GB.
- Logitech Computer Speakers

Hardware Design

Demonstration

- Scenarios:
    - Guest access approved
    - Guest access denied
    - Guest access timed-out

Key Challenges

- Project Management
  - successes / failures of divide and conquer approach
- Project Integration
  - non-standardized hardware setup during development and test
  - porting code between Verilog and VHDL
- Downside to Moore's Law
  - 2000 interrupts per second
- Terasic Woes
  - lack of [English] documentation
- Software Tools Paradox
  - simultaneously enabling and impeding progress

Conclusion

- Working with an engineer's mindset
  - requires self-motivated learning and research
- Operate with the worst-case-scenario in mind
  - always have a contingency plan
- Beyond classroom learning
  - a taste of what working in field would be like
  - stepping out of the sand-box mentality

Questions

Please speak slowly and use simple vocabulary.