Smart Mirror: Personal Assistant

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Project Goal

- Build a Smart Mirror with Raspberry Pi
- Integrate web data and peripherals
- Provide voice interaction
- Provide facial recognition and social media connectivity with camera
- Possibly integrate wardrobe utility

Components

Hardware:

- Mirror + frame + monitor
- Raspberry Pi 4
- Peripherals: mic, speaker, camera
- Standards: HDMI, USB, WiFi

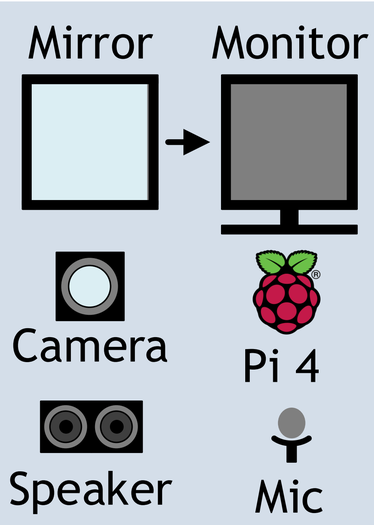
Software:

- Linux: NOOBS OS
- MagicMirror^2 software
- Python and Java languages

Progress / Challenges

- Mirror built and functional
- MagicMirror^2 software running
- Web scraping implemented in Python
- Currently: implementing mic, widgets
- Challenges: Building, Linux inexperience

Architecture



Timeline

- Week 3: Format the Pi
- Week 4: Build the Mirror
- Week 6: Web data
- Week 8: Widgets/microphone
- Week 10: Voice commands
- Break: research modeling
- Q2: Camera
- Q2: Facial recognition
- Q2: Social media connectivity
- Q2: Possible wardrobe utility

References

[1] V.E. Pawar and Pooja Sisal, "Smart Mirror Using Raspberry Pi", *International Journal of Engineering and Techniques*, vol. 4, no. 2, p. 554+, Mar-April 201. [Online]. Available: https://www.academia.edu/36679556/Smart_Mirror_Using_Raspberry_Pi

[2] Krista Kelly, "MagicMirror^2 Software", TwoWayMirrors. https://www.twowaymirrors.com/install-magicmirror2-software/