Autogaze

Gaze at the audience, not at your shoes

Key Problem:
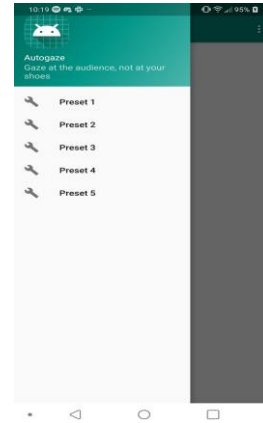
Solution:
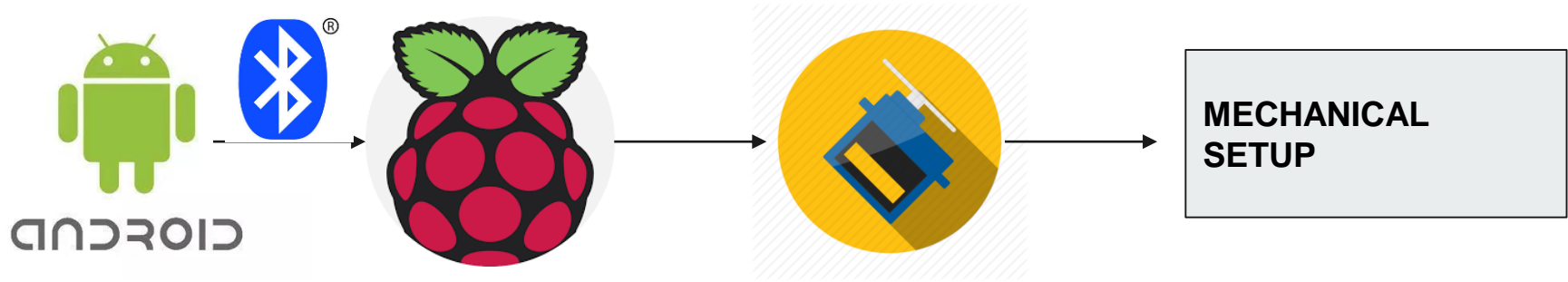
MECHANICAL SETUP

PROGRESS:

- Design pedal block and fixtures for pedal knobs in Google Sketchup ✓

- 3D print these fixtures and check compatibility ✓

- Make improvements in application and the mechanical design
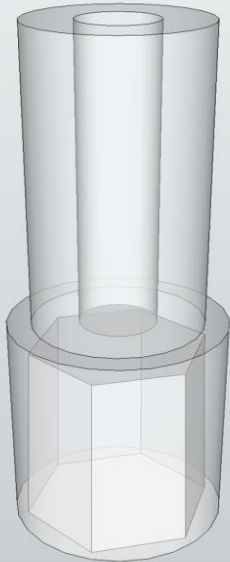
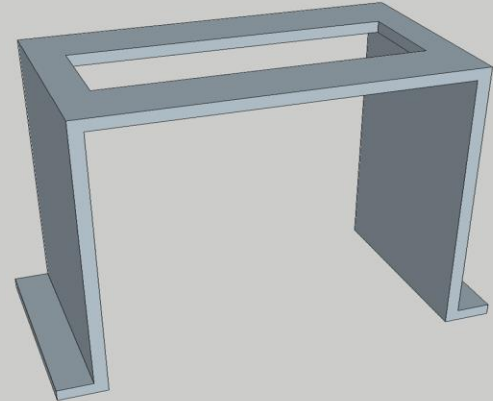- Testing and documentation

Application:

Setup:

MECHANICAL DESIGN

KNOB + SHAFT

BLOCK SUPPORT

FAILURE -> FUTURE WORK:

1. Switching from 180' to 360' servo motors
2. Modular design
3. App with custom intensities
4. PCB design of entire setup

PROBLEMS FACED:

1. Running the RPi application and the Bluetooth script on start-up
   - Solved through parallel execution of both
2. Making sure the RPi doesn't stop working when bluetooth is disconnected
   - Solved using a try - except block in the RPi application
3. Removing jitter from the 180' servo motors
   - Solved using different GPIO library
4. Mechanical Design
   - Yet to be solved

CONCLUSION

- Guitarists find it troublesome to adjust the guitar pedal during a performance
- To save rock 'n roll, we present Autogaze, a simple solution which lets you tune the pedal at the tap of a button on your phone
- Use Autogaze and gaze at the audience, not at your feet.

Thank you!