

Team Reviews Week 8

Team 5

<https://eceunilock.wordpress.com/designs/>

Still working on hardware/software

Works with Arduino mega but needs work for ESP32 implementation

Working on the Locking mechanism for Scooter lock

Thier PCB is an improved RFID reader

They have a demo of the ID moving the servo when it is presented to the RFID reader and when another unregistered ID is presented the servo does not move

They may do a Arduino Mega +ESP 32 duo for mechanical and wireless functionalities

Adrian P:

3d modeling, Conceptualized the fram and locking mechanism, innovating design for the way the lock works and making it so that it is able to sustain people trying to berek the lock or mess with it.

Adrian M:

Design pcb on kicad, building the stand/station of the scooter holder, focused on building one for the class with wood but design would be meant to be with metal, have multiple of those lined up.

Andrew:

Focused on the components connection electrical side/software , connecting things to the pcb, finding ways to work on the esp32, worked with Raspberry Pi then moved to Arduino now.

Significant Technical Progress

They have made strides, they just need to determine what is functioning and what they will have to improvise or fall back to

The system functions, though they want to improve it if they have time

Natually took on rolls and played to their strengths, overall they are working well. Early on they struggled with some issues of communication.

Team 1

<https://sites.google.com/ucsd.edu/ece-196-team-1/?pli=1&authuser=1>

Antitheft lock onto scooter/bike

If the combination of the two imus separate an alarm will go off, even in idle mode

In active mode the separation will audibly sound with a message in order to scare away thieves

The technical progress includes the case for the electronic hardware and there is a case for the u-lock itself

They have started on the software but they still have some software issues. The Inertial Measurement Units IMU is the current challenge in terms of reading data.

They have transferred to Platform IO, they have libraries/packages they just need to learn how to make them function.

They updated their PCB due to a capacitor misplacement and they now have the updated version.

Share of work

Junyi: circuits design and CAD

Yijie: Firmware/software and the website.

Teamwork

Good work separation and constant communication. Issues with stress and challenges with communicating with Tahseen. Some language barrier issues.