

REMOTE SERVICE PROVIDER

AUTONOMOUS LEVEL 3-4 VEHICLE

WE STAY IN THE LOOP, SO YOU DON'T HAVE TO
THE DESIGN PROCESS

AV
ON DEMAND

IDENTIFYING A NEED

One in every seven people in the US, over 57 million, has a disability. For a large subset of the disabled community, transportation remains inaccessible and unreliable for their needs.

AV legislation is being discussed, but not how AVs can help the disabled.

Ride-sharing companies do not place accessibility as a priority, excluding Americans who are disabled out of increasing (AV) technology.

"Lyft or Uber can be hard sometimes when I get rejected because I have a guide dog. I usually take the bus."

Marty, 31

"I take the trolley to get to most places, because public transport offers the most accessibility options. I want to use Uber, but drivers typically can't accommodate for people like me."

Norman, 56

"Getting around San Diego using Lyft or Uber has made it really easy for me, because the transportation system in San Diego is super slow."

Joy, 23

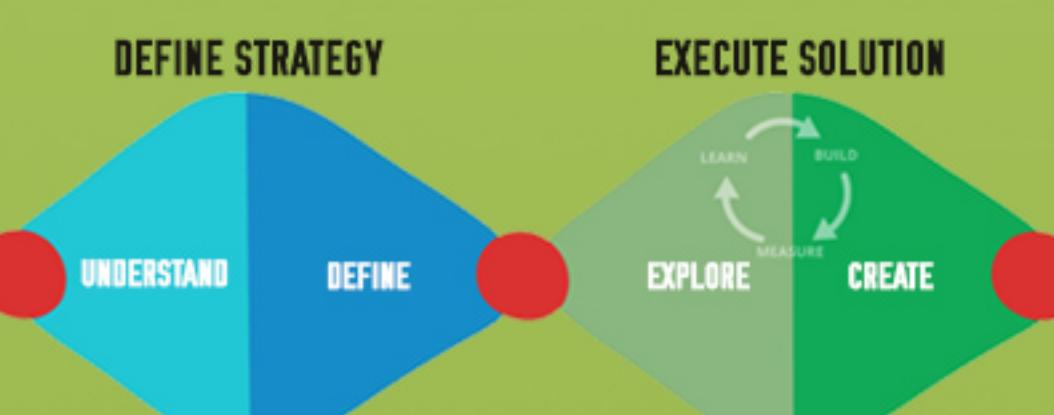
RESEARCH

Ford has partnered with Lyft to have level 4 AVs by 2021. Pilot programs are already implemented in cities like San Francisco, Seattle, and San Diego. However, these vehicles are unable to perform maneuvers in environments like roads with unclear lane markings, active construction sites, and heavy snow and rain.

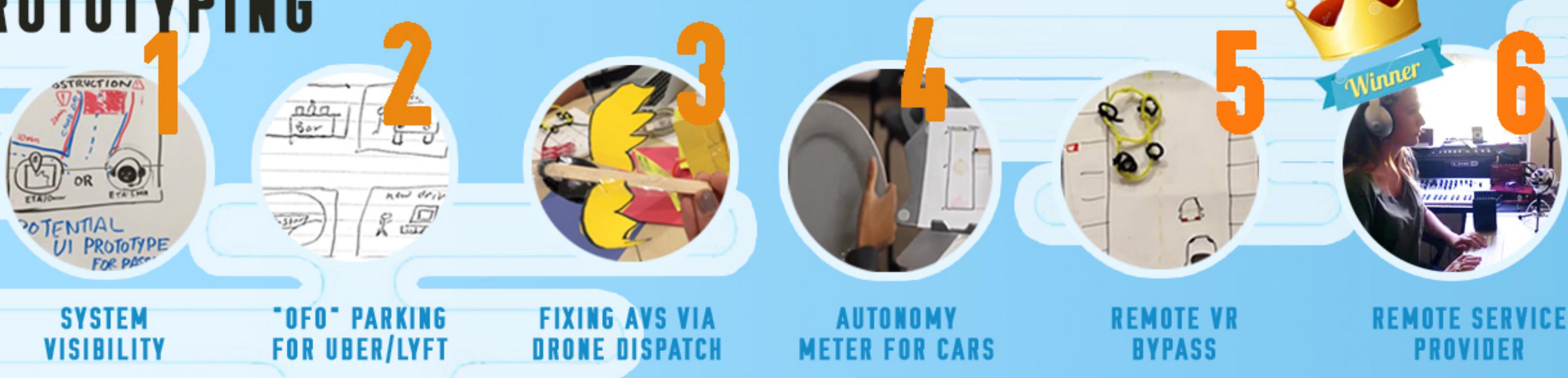
In addition, we visited Pacific Beach, Mission Valley, the VA Hospital, North Park, and Downtown SD to conduct interviews and understand how the disabled use transportation.

IDEATION

We used the double diamond process model to prototype, diverge, and converge on the most human-centered route that addressed the competition and had the most potential to improve transportation around San Diego.



LO-FI PROTOTYPING



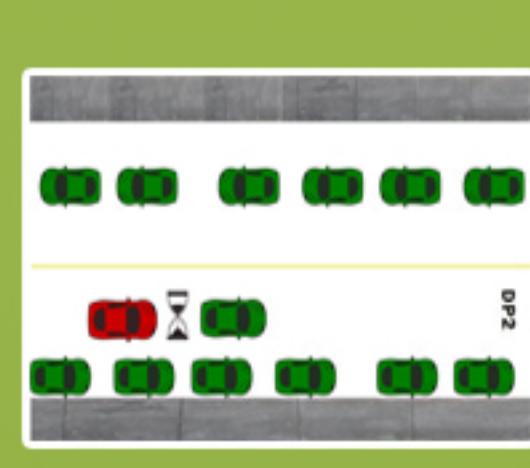
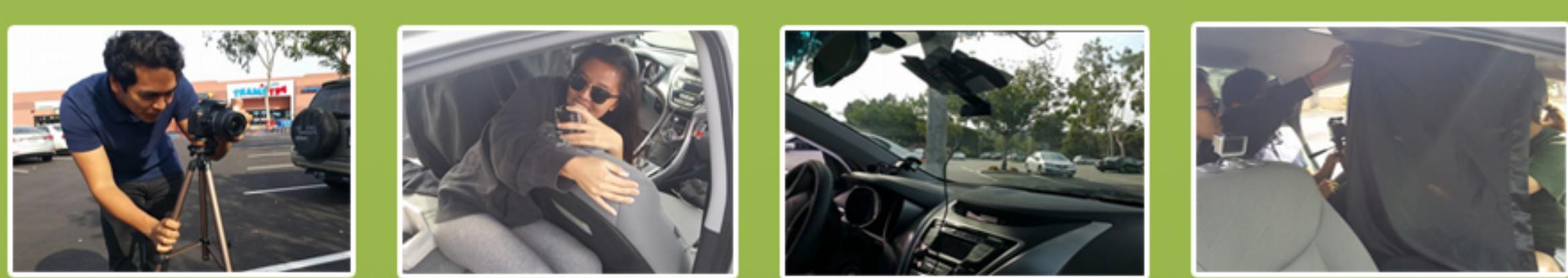
SELECTING A PROTOTYPE

We chose the Remote Service Provider prototype, as we believe that this directly tackles on a concern with autonomous vehicles in the future and how to better support the disabled in the San Diego area. We also believe that this has the ability to create second order change and improve the lives of many disabled San Diegans in the area by boosting the local economy.

TESTING UI/UX



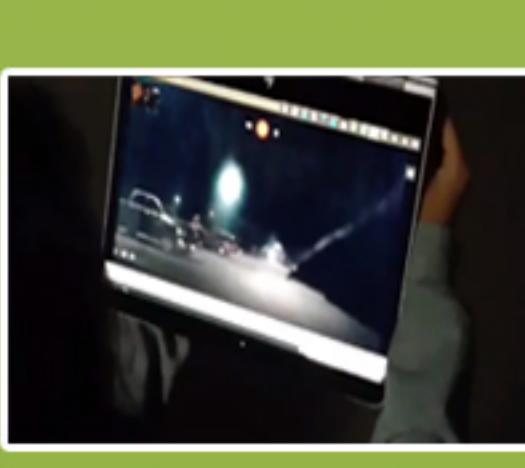
Once we selected our prototype, we tested different iterations of the UI/UX experience for both the passenger and service provider. We tested with various people and emulated different experiences to see what would be the most feasible, practical, and would hold the most impact.



Testing the service provider manual bypass experience



Testing the service provider system visibility experience



Live camera view of what the service provider views as an obstacle



Emulating the life of a service provider

OUR SOLUTION

AV onDemand connects a remote service provider to an AV operating on existing ride-sharing infrastructures. The service provider takes over when the AV has difficulty in dynamic environments.

All passenger takeover responsibilities are eliminated and increases the quality of life of Americans by increasing mobility and maximizing independence. We stay in the loop, so you don't have to.