



CHALLENGE BRIEF:

Hey, SoCal! The Olli Fleet Challenge asks ‘*What would you do with a fleet of autonomous shuttles?*’ We are looking for the best use-case scenarios for Olli. Whether it be transporting university students from class to class or providing a safe transportation service to get you from your home to your office, we want to provide a solution that offers the greatest impact to you! The winner of this challenge will receive a deployment of a pod of Olli, sized to their proposed use-case and location. The winner will receive the Olli pod for a three month deployment. We will work with all entrants on defining their contribution to any variable costs such as, but not limited to: mapping, scoping, testing and the onboard Olli steward. Judges will look more favorably on entries that are better prepared to market and sustain such Olli deployments as an integral part of their mobility solution now, as well as in the future.

The Southern California Olli Fleet Challenge is open to cities, developers, businesses and other public or private organizations that want the opportunity to test a fleet of Olli for their desired use-case. Southern California counties included in the Challenge include Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura. Valid entries will focus on five major areas that have been identified as requirements for a successful deployment:

- People: Who in your community will interact with Olli, as a rider or otherwise?
- Place: What roads will Olli drive on, and what does the surrounding environment look like?
- Policy: How will your deployment also discover and develop the future of mobility policy?
- Partnership: Who, and how, are you going to leverage partners to think about the future of mobility?
- Product (Olli): How does your organization imagine Olli transforming mobility, placemaking and culture?

Deploying Olli in Southern California will require a willingness to work in partnership with local officials, businesses and community stakeholders who will also benefit from this deployment. We are looking for entrants who are willing and able to take on both the variable costs and technical requirements of deployment, as outlined in the challenge terms & conditions.

CHALLENGE REQUIREMENTS:

Requirements are elements of an entry that must be included in the submission. We will work closely with entrants to ensure they fully understand the requirements by providing one-on-one feedback and guidance throughout the submission period, as well as periodic challenge updates to all entrants. Once the submission period has ended, the validation period will begin. During this time, feel free to make any final edits to your submission before the judging period begins.

We are looking for deployments that are a perfect fit not just for Olli, but for the people to whom Olli will be able to provide a service. All challenge entries need to meet the following requirements for Olli.

Technical Requirements:

- The operational area should have sufficient and reliable coverage of 4G LTE Data cellular communication to allow Olli and its systems to properly communicate.
- Olli is limited to 25 mph maximum speed, thus roadways should be selected that best match this speed constraint for operation in traffic, if any traffic is present.
- Roadways should be on average, less than 5% grade although Olli can operate on routes up to a 16% grade for brief periods of time.
- Olli is currently geared for on-road operation only. Roadways must be comprised of pavement or other hard surface roadways. No loose gravel, dirt or non-improved pathways.
- Olli requires access to sufficient 3-phase AC power to charge.
 - Voltage must be regulated between 440 VAC
 - Vehicle will draw a maximum of 16 amps on charge line
- For GPS tracking, Olli should be operated in areas that have a clear, unobstructed view of the sky, with minimal tree canopy coverage and limited high-rise building obstructions.
- Although Olli can operate at night, day operations are preferred due to increased visual clarity for the on-board safety steward and camera logging system.

Environmental Requirements / Limits:

- Olli can operate in various weather conditions, but only when human visibility is not degraded to less than 300 ft. The following conditions outline the operational limits for Olli:
 - Light to medium rainfall (defined as: maximum of .10 inches per hour to a minimum of 0.025 inches per hour)
 - Light snowfall (less than 0.5 inches of total accumulation)
 - Light blowing dust
 - Minimal fog
 - No sleet
 - No freezing rain
 - No sustained wind/gust conditions over 50 mph
- Generally, roadways should be free and clear of packed snow and standing water greater than 1" deep.
- Operational temperature range: -20° to 115°F

Key roadway attributes:

- Only roadways with a maximum speed of 25 mph
- Walking paths will be considered as long as the vehicle can be legally allowed to operate and is deemed safe.
- Two-lane roadways, or one-way streets
- Does not cross excessively higher speed roadways (> 40 mph)
- No stop light controlled intersections (stop signs are allowed)

Operational Requirements:

- All passengers must be seated with safety restraints on and visible. Passengers are permitted only on the basis of state regulation and operator approval.

Deliverables

Entries should contain the following information and elements:

- **Executive summary:** A brief description of the proposed concept, including your objectives and vision for this deployment; your goals and the key metrics you will measure to know you've achieved your goals; and the value that your organization sees Olli bringing to your community and the future of transportation.
- **Description of your organization:** Tell us about your organization, including its role in the community and your organization's overall priorities beyond this deployment.
- **Objective:** What are your objectives for this deployment, and how will Olli support the goals you wish to achieve?
- **People:** Define clearly who will interact with Olli (including rider demographics), and for what purpose, and the anticipated volume of riders. Outline key performance metrics your organization is hoping to achieve in your deployment.
- **Place:** Information on your proposed micro-transit corridor and how Olli will be leveraged within this space. Detailed explanation of the route, waypoints, schedule, pick-up and drop-off locations, and other critical points that would impact the execution of the route.
- **Policy:** Clearly state how your deployment plan meets current AV policy regulations.
- **Partnership:** What resources will your organization provide to ensure the success of the Olli deployment, and what additional resources are needed? Describe any other organizations or partners you envision participating in your deployment.
- **Fulfillment of requirements:** Describe how your concept fulfills the technical, environmental and regulatory requirements listed above. This should include a description of the current state of the proposed route (e.g., traffic conditions) and what exceptions or changes will need to be made to ensure that the route can be completed effectively by Olli.
- **Estimated cost of deployment:** Describe how your organization and partners will contribute to any variable costs, such as but not limited to mapping, scoping, testing, and the onboard Olli steward based on your proposed deployment. Please identify a specific financial commitment your organization would be willing to contribute towards supporting this project. Competitive applications must identify \$88,000 at a minimum, to show their support.
- **Letter of Support/Endorsement:** Endorsement from the key individuals and organizations required to ensure the success of your deployment. No more than five letters of recommendation.



- Track is .49 miles. Includes 6 stops and one u-turn.

Visual Files

- Maps, videos and photographs of the desired deployment location, with specific information on current traffic flows related to people, bicycles, cars and any other potential equipment within the geographic area of the designated deployment. For example: Google Maps.

RESOURCES

- [Olli spec sheet](#)
- Example of a map - see above

CHALLENGE JUDGING CRITERIA:

Our judges will be evaluating each submission equally on the following points:

People: The level of understanding of the use-case for Olli and the ability to communicate and connect with the people that Olli will service.

Place: Thoroughness of understanding about how the place will be transformed by Olli, illustrated through maps, identification of waypoints, traffic pattern changes, key impact metrics, etc.

Product: Your organization's interest and level of understanding of autonomous vehicles and how you

will use Olli to transform your business or organization and its surrounding community, including committed financial support for the cost-sharing portion of the challenge requirements.

Partners: The quality of the partnerships that support the vision and use-case of Olli.

Policy: Support you will provide in ensuring that policy constraints and needs can be met. This can be expressed through letters of support for example, from property owners, municipal services or departments of public works.

AWARD:

- The winner will receive a deployment of a pod of Olli (2-5), sized to their proposed use case and location.
- Winner will receive the Olli pod for a three month deployment. We will work with organizations on defining their contribution to any variable costs, such as but not limited to mapping, scoping, testing and the onboard Olli steward. Judges will look more favorably on entries that are better prepared to market and to sustain such Olli deployments as an integral part of their mobility solution now and in the future.

TIMELINE:

OLLI FLEET CHALLENGE: SOUTHERN CALIFORNIA	
Challenge Launch	5/1/19 - 6/26/19
Challenge Validation Period	6/27/19 - 7/18/19
Challenge Judging Period	7/18/19 - 7/25/19
Challenge Winner Notified/Enters into Contract	7/26/19 - 8/23/19
Challenge Winner Public Announcement	9/4/19