



Press Release

Los Angeles, 28th of August 2017

Student group from Technical University of Munich sets new Hyperloop speed record and wins second SpaceX Pod Competition

In a thrilling conclusion to Sunday's competition, the student team WARR Hyperloop won the second SpaceX Hyperloop Pod Competition with a top speed of 324 km/h—the fastest speed ever reached by a Hyperloop pod. The team represents the Technical University of Munich and its Scientific Workgroup for Rocketry and Space Flight (WARR).

A successful week of testing

After a week of safety and functional testing at SpaceX headquarters, WARR Hyperloop established itself as the team to beat among the 24 competing student groups. Three teams were given clearance to race their prototype through the tube on Competition Day to compete for the title of the fastest pod: *Paradigm Hyperloop* from Northeastern University and Memorial University of Newfoundland, *Swissloop* from ETH Zurich and the *WARR Hyperloop* team of the Technical University of Munich.

A brand new concept

In the first competition earlier this year, WARR Hyperloop won the category for ‚Fastest Pod‘. For the second competition, Elon Musk, founder of SpaceX and Tesla and initiator of the SpaceX Hyperloop Pod Competition, set a clear criterium: the fastest pod wins. Six months ago the WARR Hyperloop team set to work overhauling its previous prototype and produced a very different and significantly lighter version that, for the first time, had its own propulsion system. By using an electric motor and therefore being independent from the SpaceX accelerator vehicle used by most competitors to gain speed, the team gave themselves an advantage over the other teams.

Perfect ride at 324 km/h followed by controlled braking

The 1.25 km test tube adjacent to SpaceX headquarters in Hawthorne, Los Angeles has been built specifically for the Hyperloop Pod Competition. The tube is depressurized, reducing air resistance during the high-speed run. With the team gathered round control tent at the tube end, and after waiting 15 minutes for air to be removed from the tube, WARR Hyperloop operators performed a successful launch sequence and the preprogrammed control sequence took over. The pod continued to accelerate for a full three quarters of the tube length, and after reaching 324 km/h the brakes kicked in to stop the pod in around 3 seconds.



WARR

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Appearance by Elon Musk

Initiator Elon Musk arrived at the competition in time to watch the final competitors and spoke to the crowd about the Hyperloop concept and why he decided to instigate the competition. The founder chatted with the WARR Hyperloop team as they prepared for launch and described their run as „amazing“.

The Hyperloop Alpha Study

The Hyperloop mobility concept was introduced by Elon Musk in 2013 with his Alpha Study. The original concept described levitating high-speed trains traveling through a vacuum tube at approximately the speed of sound (around 700 mph). These tubes would be used to connect large metropolis regions and allow faster and more efficient traveling in comparison to today's means of transportation.

Background and the successful history of WARR

The Scientific Workgroup for Rocketry and Space Flight (WARR), a student organization at the Technical University of Munich (TUM), has around 200 student members active in all fields of astronautics and is internationally successful with its varied projects. Besides the latest Hyperloop project, the group has over 50 years experience developing rockets, building satellites and designing Space Elevators. WARR wrote history in 1974 with the flight of the first German hybrid rocket and in 2015 with the first hybrid rocket launched in Brazil.



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Contact and Information

We are gladly available for interviews or personal comments. You can also contact the WARR Hyperloop team directly via email, we generally respond very quickly. Our direct contact is:

WARR Hyperloop

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For further information, have a look at our websites:

Project WARR Hyperloop

hyperloop.warr.de

Technical Information about the prototype

<http://hyperloop.warr.de/pod-ii/>

Student group WARR e.V.

www.warr.de

SpaceX Hyperloop Pod Competition

www.spacex.com/hyperloop

Hyperloop Alpha Study

www.spacex.com/hyperloopalpha

SpaceX Youtube Channel

<http://bit.ly/1BwVjQr>

Pictures and Video Material

You can find a wide range of photos and video material under the following links.

Photos

<https://www.flickr.com/photos/148755431@N04/>

Videos

https://www.youtube.com/channel/UCWsP2oiB6Gq_s0E6r2T2RSQ

Maximum speed of all teams that were accepted to the final competition run

Team Name	University	Top Speed
WARR Hyperloop	Technical University of Munich	324 km/h
Paradigm	Northeastern University and Memorial University of Newfoundland	104 km/h
Swissloop	ETH Zurich	39 km/h

List of all teams that were accepted to testing week

Team Name	University
512 Hyperloop	University of Texas at Austin
AZLoop	Arizona State University; Embry-Riddle Aeronautical University; Northern Arizona University; Thunderbird School of Global Management
Badgerloop	University of Wisconsin-Madison
Binghamton Hyperloop	Binghamton University
DiggerLoop	Colorado School of Mines
Hornet Hyperloop	California State University, Sacramento
HYPED	University of Edinburgh
Hyper Poland University Team	Warsaw University of Technology
Hyperloop India	BITS Pilani
HyperPodX	University of Applied Sciences Emden-Leer; University of Oldenburg
HyperXite	University of California, Irvine
Illini Hyperloop	University of Illinois at Urbana Champaign
Keio Alpha	Keio University
Michigan Hyperloop	University of Michigan, Ann Arbor
Paradigm	Northeastern University; Memorial University of Newfoundland
Purdue and UPV Atlantic Hyperloop Design Team	Purdue University; Universitat Politecnica de Valencia
Swissloop	ETH Zurich
Texas Guadaloop	University of Texas at Austin
UCSB Hyperloop II	University of California, Santa Barbara
UMD Loop	University of Maryland
University of Washington	University of Washington
Hyperloop at Virginia Tech	Virginia Tech
WARR Hyperloop	Technical University of Munich
Waterloop	University of Waterloo