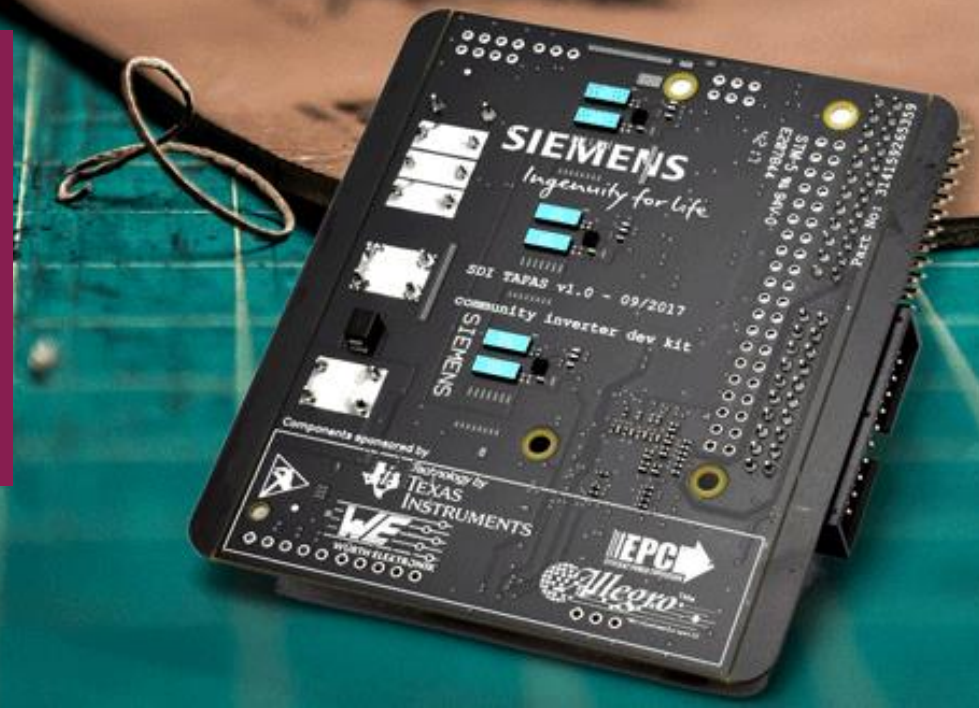
TAPAS Community Challenge

Create something new today!



What is TAPAS?

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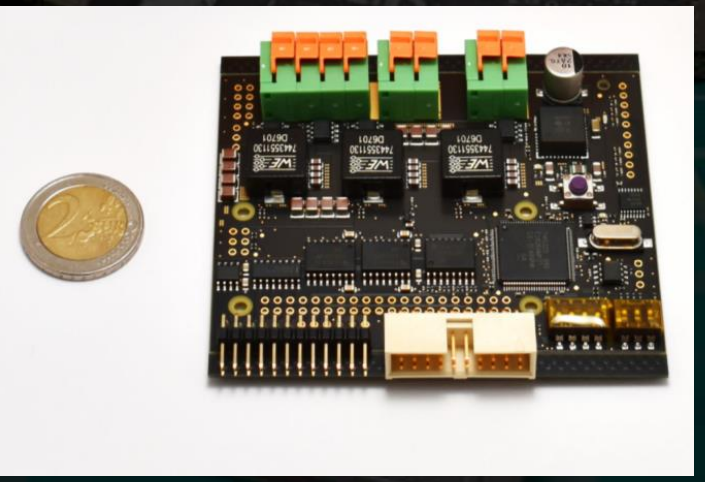
SIEMENS
Ingenuity for life

	2005	2012	2018
Algorithm (development and test)	✓ Matlab	✓ Python	✓ Mindsphere
Execute algorithm (on target platform)	X	✓ Raspberry PI 1	✓ 2,3,nano,etc.
Physical I/O (special power converter)	X	X	✓ TAPAS
Time	2005	2012	2018

SDI TAPAS community inverter

- ~300W @ 48V - GaN
- Light - 80 gram (200 gram incl. housing)
- No heat sink / PCB convection cooling
- High bandwidth (>300kHz switching frequency)
- Smooth output (on-board filter)
- Universal - can be used for robotics, motor drives, battery charging, DC/DC , AC/DC, audio, etc.
- Open source – Raspberry PI compatible



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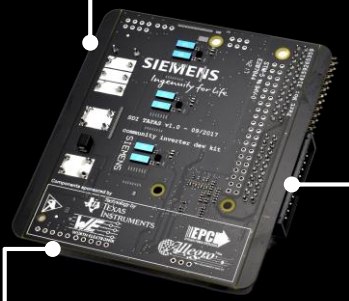
Motivation for Siemens

Increase **popularity** within academic and maker community.



Build a **community** as central element in modern product development. Direct market feedback and technology testing including community generated functionalities.

Establish **Siemens as highly innovative** player in the area of software defined inverters and/or power electronics.

Maker!

Students and University Employees as participants, Professors as academic multipliers

Initially **Europe**, to be expanded globally

TAPAS Community Challenge

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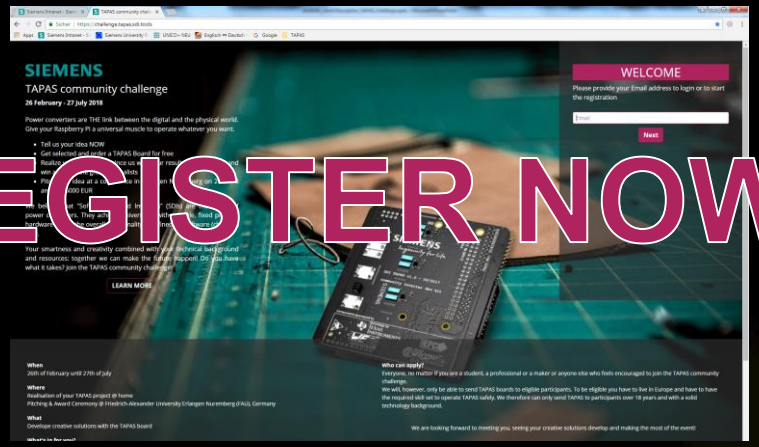
Phases



Idea submission (March-June)

- Registration via TAPAS webpage
- Short description of what to do with the TAPAS board
- Discussion of ideas by community
- Screening of ideas by Siemens experts and selection of thoses who get a **TAPAS board FOR FREE**

Project realization (March-June)

- Teams receive TAPAS boards
- Realizatrion of project, ongoing discussion with community and Siemens experts
- Upload of results (including link to code and short video) until 13.06.18

5 Finalists

Round of finalists (26.+27.7.18)

- Present project and pitch results to an audience
- Selection of winning team by a jury of experts from Siemens and Friedrich Alexander University Erlangen
- Win 5000€

IN PARALLEL

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Timeline

26.02.-13.06.2018 | 13.06.-27.06.2018 | 26.+27.07.2018

Idea submission

Send out TAPAS boards, Idea realization, project work

Selection of 5 Finalists

Final Round

1 Winning Team

50+ ideas

in community idea board

Continuous screening and selection
Send out TAPAS boards

50+ projects

running with TAPAS board

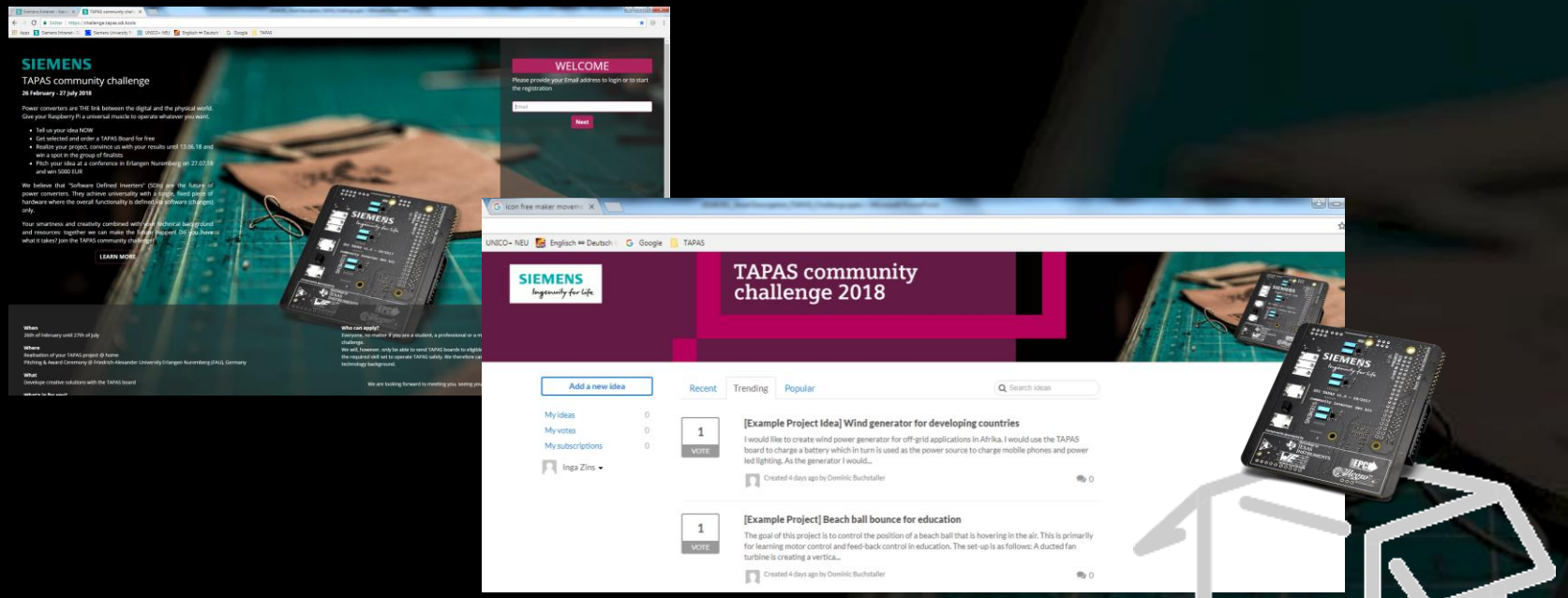
5 Finalists

Individually, code at home

On site @FAU Erlangen

TAPAS Community Challenge

How to apply and what to win



Register at
https://challenge.tapas.sdi.tools/

Post your idea
Discuss with the Community

Get your TAPAS board
FOR FREE

27.07.2018

1 Winning Team

5000€

What we need from you

- Are there events which would be suited to make advertisement? Could we give a short presentation?
- Do you know professors or Fachschaften we (you) could specifically address?
- Is there a maker space at the university?

<u>What do you need?</u>

- Flyer, Posters, digital versions?
- Fact sheet for professors?

Spread the word! → Specific and target-group oriented advertisement at university

Need more information?

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On the Challenge

Link to the Challenge: https://challenge.tapas.sdi.tools/
Link to the Video auf LinkedIN
https://www.linkedin.com/feed/update/urn:li:activity:6376826518039076864/
Link zu Video auf Twitter https://twitter.com/BuschRo/status/971060665019523072

On the TAPAS Board itself

Pictures of the Future Article: https://www.siemens.com/innovation/en/home/pictures-of-the-future/industry-and-automation/the-future-of-manufacturing-innovative-inverter.html

GitHub Link https://github.com/SDI-SoftwareDefinedInverter/TAPAS/blob/master/README.md

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