Brief Review of the Rocket Team and 3D Printing Team Activities at the University of Louisville

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Rocket Team

- Funded in 2011
- Decorated team with awards
- 5th season veteran NASA Student Launch competitor
A Team from the Garage (2011-2012)

- 2011-2012 USLI
- Best Rookie team award
- Best website award
- 5th place out of 42 teams
- National collegiate level rocketry competition.
- Teams are scored on their ability to:
  - Hit the desired altitude
  - Design an innovative rocket and ground support equipment
  - Technical reporting
  - Educational engagement
  - Website design
2012-2013 Team

- 2nd place national finish
- Best website award
- Best vehicle design award
- Best educational outreach award

- Supported by a Kentucky Space Grant
2013-2014 Team

- 3rd place national finish
- Best safety award
2014-2015 Team

- A Kentucky space grant
- 2nd place national finish
- Project presentation award
- Vehicle design award
- Safety award
Science and Technical Skills
Leadership Development

- Blue Origin
- Raytheon
- CD-Adapco
- Rockwell
- SpaceX
- NASA
- ...

![Group Photo](image1.jpg)

![Group Photo](image2.jpg)
Educational Engagement

- Visit schools
- Hold rocket design events
- Participate in public events
- More than 900 students and community members reached
Careful, astronaut Scott Kelly: each one of those lemons costs more than $2,000!
Current Printing in Space

- 3D printing on ISS
- Plastic based
- Not suitable for high temperature operations
Metal Printing in Space

- Metal based 3D printer by NASA Langley
- Bulky (1,000 lbs) and energy hungry (3 kW) power requirement
New Design

- Metal based 3D printer
- Light weight (25 pounds) and energy efficient (200 W)
Formed in 2015

Won the USIP grant

Kickoff meeting Sep 1, 2016

Currently 10 active members including 2 female students
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