



PSP

Mission Control

Purdue Space Program Brand Guidelines

Rev. 2020-2

OVERVIEW

We are PSP.

Our brand encapsulates our mission, our voice, and the mark we make on campus, at the launch site, and beyond. To better represent who we are, we've developed a brand system that reinforces our core values, strengthens our various teams, and builds a more cohesive experience. These standards will support our organization, our partners, and the programs that make PSP.

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1 WHO WE ARE

Small Steps. Giant Leaps.

PSP has one simple goal: to empower students to innovate in space exploration. In order to communicate this, it's important to recognize our values and position as a club within Purdue University, as well as our greater impact outside campus.

1.1

Our Values

Forward-Thinking

We look towards the future and embrace new ideas.

Ambitious

We like to take risks and set big goals.

Visionary

We think big and chart our own path.

Inclusive

We accept everyone, no matter where you came from or where you start.

Our Positioning



1.3

Naming Convention

In all written and verbal communication, PSP should always be referred to as Purdue Space Program. As PSP is a recognized chapter of Students for the Exploration and Development of Space (SEDS), it is important that we appropriately affiliate our club.

Official Name: Purdue Space Program, A SEDS Chapter
Shortened Name: PSP

Team Naming

PSP is built upon several teams, each focusing on different aspects of space exploration. As such, the naming style for each of the teams is just as important as the club itself.

Teams should always associate themselves as a part of PSP. Thus, a team should be named PSP followed by their focus area, such as Liquids, Solids, Hybrids, or Student Launch.

Shorthand naming is permitted in specific circumstances, such as in official documentation. In such cases, the shorthand should be formatted as “PSP-” followed by the abbreviated name of the focus area. Examples include PSP-L for Liquids and PSP-SL for Student Launch.

| Team | Name | Shorthand |
|----------------|-------------|-----------|
| Hybrids | PSP Hybrids | PSP-H |
| Liquids | PSP Liquids | PSP-L |
| Solids | PSP Solids | PSP-S |
| SSPI | PSP SSPI | PSP-SSPI |
| Student Launch | PSP SL | PSP-SL |

2 LOGOS

The PSP Logo is the central element of our identity. It encapsulates the mission and vision of PSP and is designed to be easily identifiable in all sizes and mediums.

Inspired by the unique architecture of Neil Armstrong Hall of Engineering, the PSP Logo represents our core values of innovation and empowerment. The graphical element of the PSP Logo, dubbed “the vectors,” points up and to the right, signifying forward-thinking and our desire to reach higher.

The following guidelines may seem nit-picky, but they will go a long way to keep our brand strong and consistent.

2.1

Color Usage

The following examples illustrate acceptable uses of the PSP logo in various situations.

Light or White Background

Against a light or white background, the Logo may be shown in the 2-Color variant, in Black, or in Campus Gold.

Whenever color reproduction is possible, use the 2-Color variant. In situations where only black-and-white reproduction is allowed, use the Black version.

The Campus Gold version is available in special circumstances or in creative works, such as screen printing or two-tone publications.



Dark or Gold Background

Against a dark, non-white background, the Logo may be shown in the 2-Color Reversed variant, in White, in Campus Gold, or in Black on gold-colored backgrounds.

Whenever color reproduction is possible, use the 2-Color variant. In situations where only black-and-white reproduction is allowed, use the White version.

The Campus Gold version is also available to use in dark backgrounds (not on gold or similar shades).

WARNING

Do not use any version of the PSP logo on a 30%-70% (medium) gray background to ensure optimal readability.



2.2

Spacing and Alignment

To ensure the PSP logo is easily recognizable in all types of mediums, please position the logo such that there is white space equal to the distance from the top of the vector to the top of the letter.

Additionally, it is best to keep the lockup left- or right-aligned, rather than at the center. Think of it as a graphic element instead of a headline—this will help give the publication a more balanced feeling.



Team Identification

To bring recognition for the various teams at PSP, team-specific logos are available to use for their documentation and projects. As new teams are formed within PSP, co-branded logos will be available to use.

The PSP logo is shown in conjunction with the team's name, using Saira Condensed (refer to Section 3.2).



2.4

Incorrect Use

The PSP Logo should be reproduced exactly as it appears in the provided file. Consistent use of the Logo is key to maintaining a cohesive and effective identity. If the logo appears in a variety of altered or modified forms, it becomes less reliable as a symbol.

Do not change colors.



Do not rotate or tilt.



Do not crop.



Do not rearrange elements.



Do not distort to fit space.



Do not reset type.



Do not separate wordmark.



Do not tint or make transparent.



3 TYPOGRAPHY

“Typography and typographic design are the ‘architecture’ of any publication. Based on the structure of typography, the various elements in a product fall into their logical locations and relationships, forming in the end a harmonious sequence of visual events.”

NASA Graphics Standards Manual, 1976

3.1

Libre Franklin

Libre Franklin is selected as the primary typeface for its contemporary design and readability on print and on screens. It should be used in all headings and body text. Libre Franklin is available for free online to download and install, as well as online through Google Apps.

While Libre Franklin is accessible in most mediums, there are circumstances where installing the typeface is difficult or impossible.

- Most computers have Franklin Gothic—which Libre Franklin is derived from—available in software like Microsoft Word. First substitute with Franklin Gothic.
- If more typeface options are required, such as italics or different weights, use a more common typeface like Helvetica Neue or Arial.

There are also instances where technical documentation software and services use LaTeX or Markdown for generating documents, which restrict the use of external typefaces. It is permitted to use the default typeface that is used to generate the document.

3.2

Saira

Saira is selected as the secondary typeface for its technical and futuristic look, and is also available for free online through Google Apps and can be downloaded and installed.

Saira is intended to be used sparingly in large formats or in graphic elements rather than in long bodies of text as it is more difficult to read than Libre Franklin.

PSP Logo

Saira Bold is used on the PSP wordmark of the logo, and its color should be changed appropriately as described in Section 2.1.

Team names on the PSP Logo use Saira Condensed Extra Light, typically in Campus Gold for 2-Color variants. In single-color instances, the team name is in the same color as the logo.

Some letters in the PSP logo should use a different ligature than the default glyphs available, such as the lowercase 'y'. This is done to ease readability in a variety of distances.

Print and Web

Saira may be used in major titles and subtitles of documents, as well as names of members and full wordmark of PSP. There are situations where a capitalized casing is more appealing than normal casing, so use the following guidelines for text style.

- When adding the full wordmark “Purdue Space Program” as its own element, use capitalized casing with a moderate amount of tracking (spacing) between letters.
- Project names in titles should use capitalized casing.
- Subtitles should use capitalized casing with a large amount of tracking (spacing) between letters.
- Member names in name badges and business cards should be in normal case.

Libre Franklin

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

1234567890\$(&?!%.,;:-)

Thin Oblique

Extra Light Oblique

Light Oblique

Regular Oblique

Medium Oblique

Semibold Oblique

Bold Oblique

Extra Bold Oblique

Black Oblique

Saira

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

1234567890\$(&?!%.,;:-)

Thin

Extra Light

Light

Regular

Medium

Semibold

Bold

Extra Bold

Black

Thin

Extra Light

Light

Regular

Medium

Semibold

Bold

Extra Bold

Black

4 COLORS

As a recognized club at Purdue University, it's important that we inherit the Gold and Black to PSP. We've adopted Purdue University's Rush gold and introduced a slightly lighter variant of black called Night Sky.

4.1

Primary Palette

The colors indicated should be used in all material whether physical or digital. Avoid using any colors that are the same shade or nonetheless similar.



Black

PMS Process Black
CMYK 0, 0, 0, 100
RGB 0, 0, 0
Hex #000000

Night Sky

PMS 419 C
CMYK 3, 3, 0, 85
RGB 37, 37, 38
Hex #252526

Rush

PMS 110 C
CMYK 0, 20, 100, 8
RGB 218, 170, 0
Hex #DAAA00

Moondust

PMS 663 C
CMYK 0, 1, 4, 5
RGB 242, 239, 233
Hex #F2EFE9

White

CMYK 0, 0, 0, 0
RGB 255, 255, 255
Hex #FFFFFF

Supporting Palette

The supporting palette is adopted from Purdue University, with the exception for Boilermaker Gold, which is designated as Purdue University's primary color. For reference, the colors are provided here, however, please visit brand.purdue.edu for more details on combinations and specific guidelines.



Boilermaker Gold

PMS 7502 C
CMYK 3, 20, 45, 3
RGB 207, 185, 145
Hex #CFB991



Steel

PMS 425 C
CMYK 63, 51, 45, 33
RGB 85, 89, 96
Hex #55960



Aged

PMS 7562 C
CMYK 14, 29, 62, 12
RGB 42, 111, 62
Hex #8E6F3E



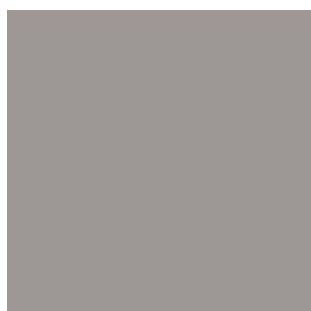
Cool Gray

PMS Cool Gray 9 C
CMYK 50, 40, 34, 17
RGB 111, 114, 123
Hex #6F727B



Field

PMS 4017 C
CMYK 5, 18, 81, 4
RGB 221, 185, 69
Hex #DDB945



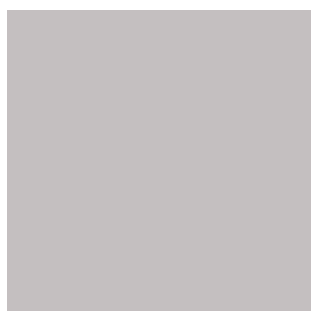
Railway Gray

PMS 402 C
CMYK 34, 30, 33, 8
RGB 157, 151, 149
Hex #9D9795



Dust

PMS 7402 C
CMYK 3, 8, 43, 0
RGB 235, 217, 159
Hex #EBD99F



Steam

PMS 400 C
CMYK 20, 17, 19, 0
RGB 196, 191, 192
Hex #C4BFC0

5 MEDIA GUIDELINES

The way we use media, like photos and videos, is just as critical in shaping our brand identity. Using the right media can demonstrate who we are, and can excite and propel others to reach higher.

Photography

Photography is a powerful way to communicate PSP. The images you choose should be compelling and reflective of the PSP culture and activities. They should feel natural and unstaged.

General Guidelines

- Choose a photo that has appropriate lighting, and properly focuses on the subject.
- Avoid photos with unintended motion blur or excessive noise.
- Choose a photo that is simple to understand. Avoid making the viewer wonder where they're supposed to look.
- Avoid photos that approach stock photo territory, which start to feel inauthentic.

Elements of a Good Photo



Focus

Ensure the photo is clear and specific to what it's about. Capture a photo that blurs the background and brings attention to the foreground.



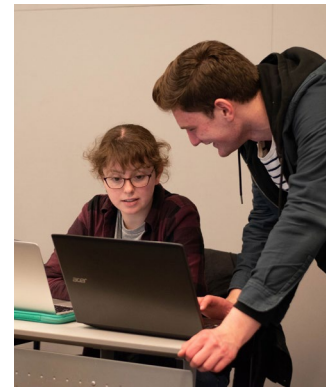
Emotion

Try to capture the mood of the session, and avoid awkward facial expressions.



Action

Actions speak louder than words, so capture subject interactions with parts or other people.



Natural

Avoid staging the photo whenever possible. Candidness truly captures the moment and portrays more about the session.

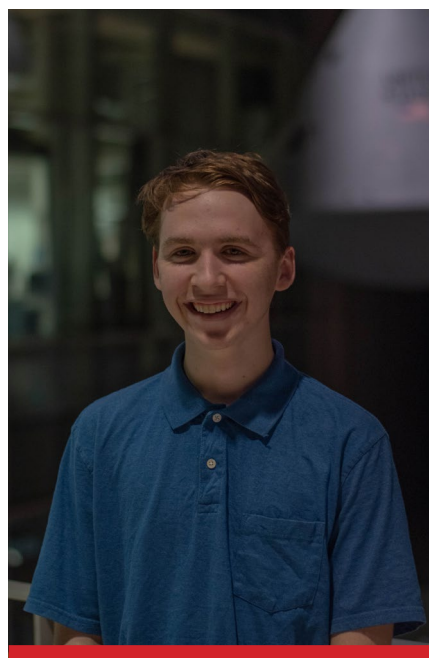
Portraits and Headshots

In general, portraits should be natural and spontaneous, and taken in environments where the subject works. Headshots, however, are often staged and used in a roster, and should follow these guidelines:

- Headshots should be taken at the second floor of Armstrong Hall, facing the atrium.
- Subjects should be wearing a PSP polo or a PSP t-shirt, such that the logo is visible in the photo. (See Section 6.4 for apparel guidelines.)
- The camera taking the photo should be a DSLR with a lens that has a low aperture so that the background blurs naturally.
- The Apollo One module should be to the right of the subject in the photo, while the glass panes should be to the left.
- Use natural lighting as much as possible, as the ceiling lights are sharp and cause deep shadows on the subject. Thus, midday or early sunset is the best time.



Example of a good headshot.



*Example of a poor headshot.
Notice the subject is not wearing a
PSP polo, and the shadows are too
sharp from the ceiling lights.*

Videography

Videos are critical to promoting PSP and demonstrating the work that happens here. They should be able to visualize your story and compel your target audience. Here are some general guidelines:

- Avoid shaky, overexposed, or underexposed video. Subjects should be properly lit.
- Choose a subject and focus on it. Avoid switching to several subjects in one video as it can confuse the viewer.
- Capture B-roll to show the context of the session.
- For videos with a single subject, find a background that isn't flat or solid. This adds depth to the video as well as adds a visual appeal and quality.

6 APPLICATIONS

Our brand elements are made to work in concert with each other, allowing for creativity and expression while remaining consistent and clear. These are the guidelines for how to use these elements together.

Reports

The majority of the applications are in official documentation and reports. PSP has a report template available in Google Docs and Microsoft Word that presets the layout, cover, fonts, and colors. This can be used as-is or as a baseline to adapt your report to best fit your requirements.

Project Casper

2020

Preliminary Design Review
(PDR)

PURDUE SPACE PROGRAM
Purdue University



Launch Vehicle Summary

This section provides a more in-depth look at the launch vehicle which will be created by the PSP-SL team for the 2020 NASA Student Launch competition.

Launch Vehicle Selection, Design, and Rationale

For the selection of a viable launch vehicle, there are many considerations to be made during the design phase. In any given launch vehicle, these constraints will change many times. For the purposes of this competition, three driving constraints are the size of the payload, whether the price for the vehicle fits into the budget, and the launch vehicle will have a diameter of 6". For the selection of the launch vehicle, the goal was to keep the stability between 2.7 and 3.2 cal. The objective is to meet the team derived requirements, as well as additional requirements derived by NASA, and to make sure the apogee is not affected dramatically. Selection of the diameter of the launch vehicle was driven by the size of the payload, therefore 6" was decided very early in the project development. For avionics consideration, the weight of the launch vehicle must be around 56lbm to ensure the main parachute can successfully complete its mission. These are a few of the important considerations that went into the design and selection of a launch vehicle for the 2020 competition.

Mission Statement and Success Criteria

The mission is to design, build, and fly a fully-reusable, student-built launch vehicle capable of carrying a scientific payload to an altitude of 4325ft AGL. For us to consider the flight a success, the vehicle must:

1. Make a stable ascent
2. Fully deploy both the drogue and main recovery systems at the proper altitudes
3. Stay completely tethered and have no free-falling sections
4. Fully deploy the payload after landing
5. Be flyable again without any repairs or alterations

Considered Designs and Their Capabilities

In any engineering design process, multiple designs must be considered of which those designs are eventually narrowed down to the one final design. Listed below are some of the considered design alternatives.

Considered Design #1:

One of the considered design was a 6.5" diameter and 138" long launch vehicle. The downsides of this design outweighed the benefits, primarily due to the high weight and low commercial manufacturability of 6.5" airframes. The fin design included four trapezoidal

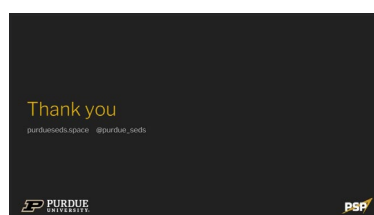
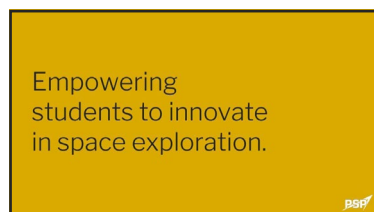
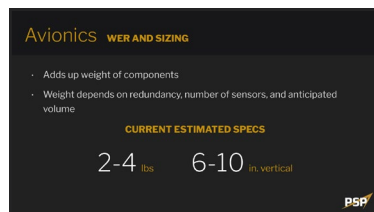
6.2

Presentations

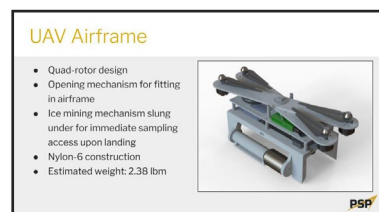
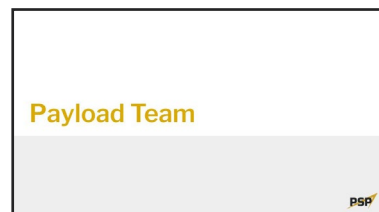
Another major application are in presentations used for design reviews or general meetings. PSP has two templates available in Google Slides and Microsoft PowerPoint.

1. The Dark theme is best used in general meetings where printing the presentation is not required. The theme includes a cover slide that is shown prior to the start of the meeting.
2. The Light theme is optimized for printing and should be used for design reviews.

Dark Theme



Light Theme



Icons and Avatars

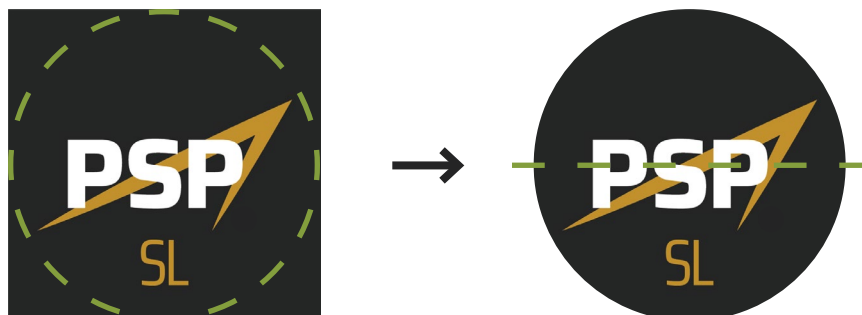
PSP icons are optimized for social media handles that have both rectangular and circular profiles. Use the icon that has the 2-Color Reversed variant of the logo with a Night Sky background. Do not crop the logo so that it reaches the edge of the frame.

Avatars with text should be placed beneath the logo. For social media handles that use circular frames should align the PSP logo at the absolute center. Other platforms with rectangular frames, such as LinkedIn, Slack, or GitHub should align the combined logo *and* text at the absolute center.

Normal Social Media Avatar



Team-Specific Social Media Avatar



Rectangular Avatar



6.4

Business Cards

Business cards are a great way to professionally connect with other chapters or recruiters. Optional PSP business cards are available for executive board members and team leads, and should follow the template available.

Business cards are ordered at Vistaprint using standard thickness, matte paper stock, and standard corners, with the front and back in color.



Apparel

Apparel unite members as a representative of PSP. As such, apparel design must be treated with care.

Polos

PSP polos has the PSP logo embroidered on the right chest on a black standard short-sleeve polo shirt. Team names may be added beneath the logo with proper spacing using Saira Condensed in Campus Gold.

The male PSP polo is the Adult Core Classic Pique Polo in Black, and the female PSP polo is the Ladies Core Classic Pique Polo in Deep Black. Polos are ordered from LogoSportswear (logosportswear.com).

Color proofing is required through LogoSportswear. There are instances where the gold is washed off in the initial proof. Ensure that the gold color conforms to the PMS code for Campus Gold.

Standard T-Shirts

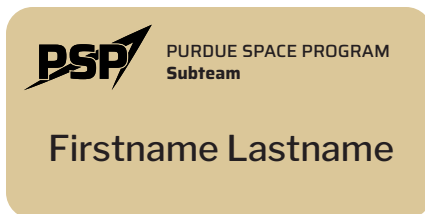
Standard PSP t-shirts has the PSP logo screen-printed on the right chest of a short-sleeve t-shirt. The t-shirt is a Unisex Gildan Adult Ultra Cotton t-shirt in Dark Heather. The design may use either the official PMS code for Campus Gold or PMS 452 for a more reflective gold look.



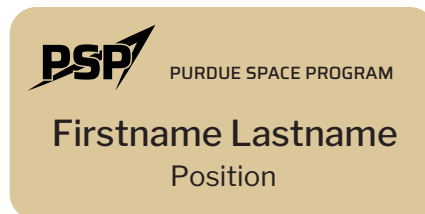
6.6

Name Badges

Optional PSP name badges are available to team leads and executive board members. PSP name badges are based on Purdue University's gold name badge from Awards Unlimited Inc. (awardsunlimitedinc.net). Templates are available to use and is approved for ordering at Awards Unlimited.



3-Line Subteam Variant



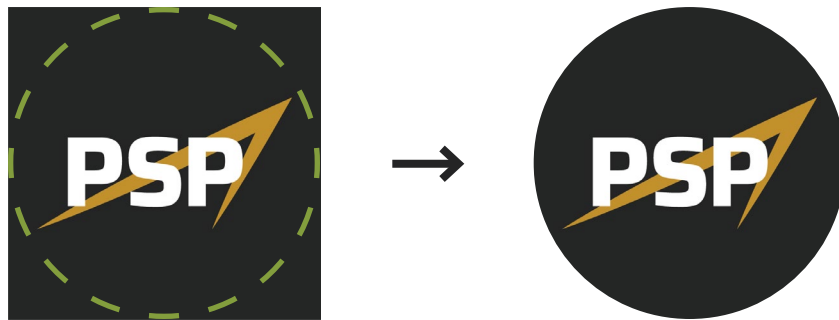
3-Line Position Variant



4-Line Variant

Stickers

Standard PSP stickers should be based on the standard avatar: the PSP 2-Color Reversed variant with a Night Sky background. Stickers should be made on a rectangular canvas with the background spanning throughout, even when the sticker being ordered is a circular cut. Submitting a design with a circular background risks unwanted white edges.



6.8

Mission Patches

Mission patches are a great way to promote a project, especially during competition or launch day. Mission patches are the most creative aspect of the PSP brand with some guidelines:

1. The text “Purdue Space Program” must be visible on the patch using Saira in capitalized casing if possible.
2. The project name must be visible.
3. The patch should incorporate the primary color palette.



Example mission patch

