

Admire the colorful moment of a star in the making

Another stunning new image sent back from the world's most expensive James Webb Space Telescope shows the moment a young star is in the process of forming.

Another stunning new image from the world's most expensive James Webb Space Telescope shows the moment a young star is forming, called a protostar, and streams of dust and The gas giant is thrown out as it consumes material from the surrounding cloud.

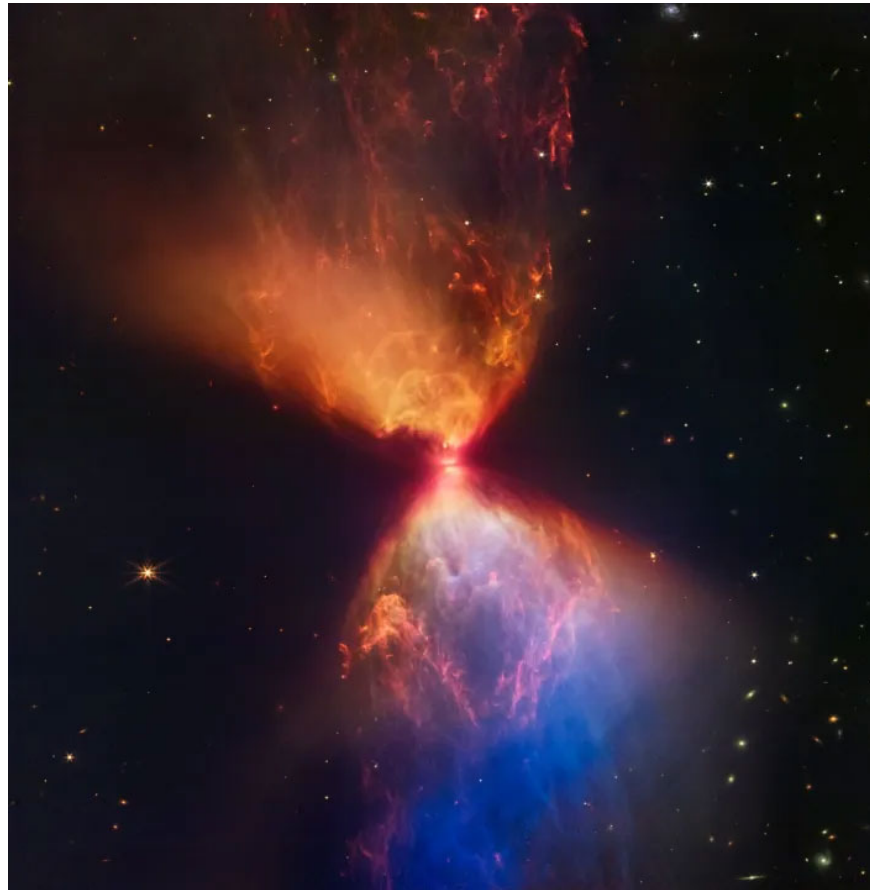
This object has now been observed with two state-of-the-art camera systems from James Webb: The near-infrared region was imaged with the NIRCam camera, while the mid-infrared region was imaged with the MIRI instrument. Scientists then analyzed and synthesized the obtained data to create this image.



Focusing on the infrared part of the electromagnetic spectrum allows researchers to see through opaque dust clouds in the visible light range, revealing the internal structure of gas dust clouds, such as fields This cluster of clouds is called L1527. The composite image shows internal structures called filaments that are formed from compounds called polycyclic aromatic hydrocarbons (PAH), and are used to track star formation. In the bright red center of the image is the hot gas and dust surrounding the protostar, from which it was powered to grow larger.

The NIRCcam image gives a very different look because this wavelength shows most of the light reflected from the dust, while this new MIRI image shows the thickest pockets of dust. The MIRI image shows a white region

that is difficult to see in the NIRCam image, which is a mixture of PAHs, ionized gases, and several other series of materials.



' The combination of analyzes from both near-infrared and mid-infrared views reveals the overall behavior of this system, including how the central protostar affects the surrounding area ,' the researchers said. scientific explanation. ' Other stars in the star-forming region where L1527 resides are also forming in a similar way, which could lead to other molecular clouds breaking up and preventing new stars from forming , or hinder the processes that catalyze their development ' .

You finished reading the article "**Admire the colorful moment of a star in the making**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.