

ENGH 302
Sample Student Response
Reverse Outlining Exercise

Please read the Purdue OWL guidelines that explain how to create a reverse outline of your written text. You might also consult the [GMU Writing Center guide, “Reverse Outlining,”](#) for additional information.

Enter your responses directly on this worksheet. When you have finished, save your document using the following file naming protocol: LastNameOutline.

If you need additional rows for more than 12 paragraphs, add them using the “insert row in a table” tool, available under the “Table” drop down menu in Word.

Next, submit your saved document to the Reverse Outlining exercise in Blackboard.

Topic of each paragraph. <i>Be brief.</i>	Topic sentence for each paragraph. <i>Copy and paste the exact topic sentence in the paragraph. If there is no topic sentence for the paragraph, explain why.</i>	Describe the purpose of the paragraph. <i>Briefly describe the function each paragraph plays in the essay.. Verify if those functions match the features of the public writing genre you chose.</i>
Para 1 Artificial intelligence, robots, and their uses.	“Artificial intelligence in robots often invokes images of Terminator 2: Judgement Day, but there are many beneficial and favorable uses for automated robots.”	Introduction. “Hook” to catch the reader’s attention. It also includes the second paragraph, which is just one sentence long: “Robot is one of them.”
Para 2 The scholarly study that created a robot that could mimic biological behaviors of bats.	“Researchers from Tel Aviv University in Israel have successfully created an autonomous robot that travels through a novel environment using echolocation.”	Identify and cite the scholarly study about AI robots that is the focus of the article.
Para 3 How previous autonomous robots navigated environments using visual senses.	“Previously, autonomous robots, robots free of any human operator, needed sophisticated systems of cameras and other visual inputs to navigate an environment.”	Background information. Establish how previous autonomous robots navigated in ways that mimic how most animals do using their visual sense.
Para 4 How bats use a different kind of navigation—echolocation—to navigate.	“Bats on the other hand, have a different form of obtaining information about their environment.”	Transition paragraph. Establish how bats navigate differently using sound (sonar).
Para 5 Introduce the Robot	“Robot is the first autonomous robot to focus on a biological	Body paragraph. Specific details from the study about

	approach, imitating the abilities of bats.”	the Robat and why it is innovative.
Para 6 How the Robat navigates.	“Robat’s configuration of emitters and receivers allows the robot to create representations of objects based on distance and the type of material.”	Body paragraph. Explain the challenges autonomous robots face in navigation and how the scientists who created the Robat overcame these challenges.
Para 7 Specific details from the study about how the Robat navigates.	“While far from the appearance of a bat, Robat operates similarly.”	Body paragraph. Further detail from the study about how the Robat navigates by mimicking a bat’s use of echolocation.
Para 8 Bat echolocation and Robat echolocation	“Itamar Eliakim, a mechanical engineering graduate student at Tel Aviv University, states, “the bat’s wide-band signals provide ample spatial information allowing it to localize multiple reflectors within a single beam.””	Body paragraph. Integrate a quotation from a member of the team that published the study.
Para 9 Differentiate between the bat and the Robat’s navigational abilities	“Although Robat mimics a bat’s ability to map an environment, it lacks the winged mammal’s speed and mobility.”	Qualifying paragraph. Establish the limitations of the Robat after explaining its innovative abilities.
Para 10 Back to the strengths of the Robat	“Robat isn’t easy to hinder when it’s moving about..”	Body paragraph. More details from the study about the Robat and its maneuverability.
Para 11 Introduce an example of a real-world event that would have benefited from the Robat.	“The recent touch-and-go rescue operation of 12 young Thai soccer players could have benefited from robots like Robat.”	Use a real-world example to suggest uses for the Robat.
Para 12 Need for more echolocating robots.	“More research is needed in developing echolocating robots like Robat.”	Begins bringing the article to a close by incorporating more information from the study about the need for more research.
Para 13 Autonomous robots, AI, and controversy	“Autonomous robotics and artificial intelligence are both hot button issues.”	The conclusion of the article. Makes a connection between robots and controversies about AI in the culture at large.

ANALYSIS. Please consult the [GMU Writing Center reverse outlining guide](#) for further details about these steps. *Enter your responses directly beneath each question.*

1. Read through the column that lists the topic sentences. Do those sentences *alone* create an organized translation of your scholarly article that a general audience could understand?

There are weak links between paragraphs six and seven, nine and ten, and ten and eleven if I look at the topic sentences alone.

2. Read through the column that lists the purpose of each paragraph. Do those descriptions show that you have addressed the organizational pattern of the genre of public writing you chose?

I think so. I followed the pattern of a newspaper article in The New York Times. I used images, too, and a tag line at the beginning which are not paragraphs but do meet the characteristics of a newspaper article.

3. What revisions would you make based on what you learned from your reverse outline?

I will fix the weak links by using stronger transitions and paragraph summary sentences. I think I need to make the Thai soccer team example appear closer to the conclusion, or maybe even part of the conclusion, so that the potential benefits of the technology are emphasized.