| Use case | | Model | Natural language command | JSON Structure | Human Score | Comments |
| --- | --- | --- | --- | --- | --- | --- |
| Ground R | | GPT3.5 | Make a left turn and travel at a velocity of 0.5 meters per second for a duration of 10 seconds. | ['{""action"": ""rotate"", ""params"": {""angular\_velocity"": 0.5, ""angle"": 90, ""is\_clockwise"": false}}', '{""action"": ""move"", ""params"": {""linear\_speed"": 0.5, ""distance"": 5, ""is\_forward"": true, ""unit"": ""meters""}}'] | 2 | The JSON structures partially match the natural language command. Some details are missing or incorrect. |
| Ground R | | GPT3.5 | 418: Maintain a pace of 2 meters per second for a period of 5 seconds. | ['{""action"": ""move"", ""params"": {""linear\_speed"": 2, ""distance"": 10, ""is\_forward"": true, ""unit"": ""meter""}}'] | 4 | The command corresponds to the "move" action, but the "distance" parameter is not specified. |
| Ground R | | LLaMA-7b | 8: Turn left by 90 degrees. | "['2' (Hallucination! or conflating with the ontology?);Human: 0;" The command 'Turn left' is similar to the 'rotate' action in the JSON structure, but it does not specify 'is\_clockwise' and the angle given in the command does not match with the angle given in the JSON structure."] | 2.5 | The command partially matches the JSON structure, but some details are missing. |
| Ground R | | LLaMA-7b | 814: After turning right, advance forward and cover a distance of 10 meters. | "['5';2.5;" The linear speed, distance, direction, and unit of movement in the JSON command are in accordance with the natural language command. Even though the command does not instruct a 'rotate' action explicitly, the 'move' command is well translated and hence the score of 5."] | 4 | The command closely corresponds to the JSON structure for the "move" action. |
| Ground R | | LLaMA-7b | 631: Proceed straight ahead for a distance of 10 meters, maintaining a speed of 2 meters per second. | "['4;0;" The natural language command corresponds closely with the JSON structure for the 'move' action. However, the given speed and distance parameters do not match the values in the JSON structure."] | 4 | The command corresponds closely with the JSON structure for the "move" action, with some parameter mismatches. |
| Ground R | | LLaMA-7b | 489: Go back 6 meters. | "3.5;0;" The natural language command partially matches the "move" JSON structure. The correct direction (backwards) isn't specified in the JSON structure, and there's no specification for 'distance' in JSON which should be '6' as per the natural language command. However, "unit" as "meter" aligns with the natural language command."] | 3.5 | The command partially matches the JSON structure, but some details are missing. |
| Ground R | | LLaMA-7b | 626: Perform a 180-degree clockwise rotation. | "['5;0;" The natural language command correctly matches with the JSON structure for the 'rotate' action. It specifies the 'angle' parameter as 180 and 'is\_clockwise' parameter as True, both of which are included in the structure."] | 5 | The command exactly matches the JSON structure for the "rotate" action. |
| Ground R | | LLaMA-7b | 853: Perform a clockwise rotation of 270 degrees. | "['4';0;" The command corresponds mostly with the 'rotate' action in JSON structure, including the 'angle' and 'is\_clockwise' parameters. However, the 'angular\_velocity' parameter is not mentioned in the command."] | 4 | The command mostly corresponds to the JSON structure for the "rotate" action. |
| Ground R | | LLaMA-7b | 385: Rotate anticlockwise by 60 degrees and advance 3 meters. | "['4;0; The command matches with two JSON structures but the rotation direction is not specified in the JSON parameters. The moving action matches perfectly with the second JSON structure and rotation without direction matches with the third structure."] | 4 | The command matches with multiple JSON structures, but some details are missing. |
| UAV | | GPT3.5 | 356: Travel in a forward direction for 500 meters, maintaining a speed of 30 kilometers per hour. | ['{', ' ""action"": ""fly"",', ' ""params"": {', ' ""speed"": 30.0,', ' ""altitude"": 0,', ' ""direction"": {', ' ""type"": ""str"",', ' ""value"": ""forward""', ' },', ' ""duration"": 10,', ' ""unit\_speed"": ""km/h"",', ' ""unit\_altitude"": ""meters"",', ' ""unit\_duration"": ""seconds""', ' }', '}'] | 4 | The command partially conforms to the JSON structure. Some details are missing or incorrect. |
| UAV | | GPT3.5 | 655: Proceed straight ahead for a distance of 5 kilometers, maintaining a velocity of 90 kilometers per hour. | ['{', ' ""action"": ""fly"",', ' ""params"": {', ' ""speed"": 90.0,', ' ""altitude"": 0,', ' ""direction"": {', ' ""type"": ""str"",', ' ""value"": ""forward""', ' },', ' ""duration"": 200,', ' ""unit\_speed"": ""km/h"",', ' ""unit\_altitude"": ""meters"",', ' ""unit\_duration"": ""seconds""', ' }', '}'] | 2 | The JSON structure partially matches the command. Some details are inferred or incorrect. |
| UAV | | GPT3.5 | 189: Keep yourself elevated without any movement for a span of 45 minutes. | ['{', ' ""action"": ""hover"",', ' ""params"": {', ' ""duration"": {', ' ""type"": ""float"",', ' ""value"": 2700.0', ' },', ' ""altitude"": {', ' ""type"": ""float"",', ' ""value"": 0.0', ' },', ' ""unit\_duration"": ""seconds"",', ' ""unit\_altitude"": ""meters""', ' }', '}'] | 3 | The command partially matches the JSON structure. The |
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| Ground R | GPT3.5 | 809: Make sure to land precisely at the assigned landing area. | {'action': 'land', 'params': {'location': {'type': 'tuple', 'value': '(37.7749, -122.4194)'}}} | 5 | Exactly conform. |