**Case Study #4: a Raspberry pi Delivery Robot Controlled by Live Stream Chat**

Another case study is a delivery robot called Droiid created by Even Kouao a youtuber and a software engineer at Vodafone. Droiid is a delivery robot controlled through the commands sent on a live stream chat on twitch. Unlike other robots, Droiid has six wheels instead of four this could make its movement smoother than other four wheels robots. The outer design of the robot is a custom 3D printed design to ensure it is not very heavy. However, the downside is it may not survive under strong circumstances. Droiid is not fully autonomous as it still needs to receive its commands from the live stream chat. The robot has two main features, Speech, and movement in both cases the commands received from the live chat. **Fig.1** shows the flow of the command typed on the live stream chat, which is then received by the Droiid server, forwarded to the robot. The server breaks the message typed on the chat converts it to JSON payload format and send it to the Raspberry Pi, the main controller board of the robot. The received format can be interpreted to either a movement or speech command. For the movement commands, after the raspberry pi receives the command from the Droiid server, it forwards it to the Arduino board which then will generate the control signals sent to the driver board for the motors. In case of a speech command, the raspberry pi has a text-to-speech library which convert the text message received form the Droiid server to a speech sent to the output speaker.

Graphical user interface, text, application

Description automatically generated