Sigmund Droid Presentation:

Good afternoon, we are Sigmund Droid, and we created Sigmund, JPMC floor butler.

At our initial brainstorm trying to decide what our ev3 robot would do, all our collective ideas centered on themes of increasing collaboration, reducing overhead, and delivering superior customer service.

Most of our ideas had one thing in common, the robot would provide functionality requiring intelligent indoor navigation. Indoor navigation coupled with preloaded JPMC floor plans presents itself endless opportunities if the robot can directly interact with employees and customers via a variety of inputs and integrate with JPMC APIs (such as WIS).

Our proof of concept design consists of a slim Debian OS called ev3dev. We upgraded on the standard block programming and did all the programming in python. We custom designed our robot for ease of maneuvering indoors and avoiding obstacles. We use Bluetooth, and wifi for connectivity from laptop to Sigmund and to share the Internet connection. At a high level, Sigmund starts at his home base and takes an input. These inputs can be some kind of physical card or another application. We used color blocks to represent the inputs for now and used color sensor to read the input. Sigmund calls an API server to retrieve a destination based on the input. We used a Flask server that is cloud-ready to retrieve pre-calculated coordinates. Sigmund will then guide you to the destination based on those coordinates. We will show you 3 demonstrations on how this can be applied in the real world:

Mention: the color sticks represent input to Sigmund.

Use Case 1:

I step into a Chase branch bank, and I would like to speak to a financial advisor. Sigmund will greet me, would know which financial advisor is available and then chaperone me to his desk and make the introductions. **Blue block: Alonna**

Use Case 2:

We believe walking over to a colleague’s desk instead of a video call or IM chat would help build relationships and collaboration. We resist because the challenge of locating that person’s desk for the first meet and greet is too much of a hurdle. Sigmund can assist by escorting you to that colleague’s desk. You meet Sigmund by the elevator on the floor, input the employee’s sid (we use a color sensor to represent the sid), and voila, Sigmund will now usher you that colleague’s desk. **Orange block: Doug**

Use Case 3:

When a vendor or employee is visiting, onsite for an important meeting, rather than another employee having to greet and escort them, why not send Sigmund? We envision Sigmund can call the owner’s meeting calendar using Exchange web services and extract the conference room name and Sigmund will act as their floor guide while avoiding an obstacle to the conference room. **Black block: Marc**