# **Nest Cam Installation Study** Google LLC | Q4 2020

### **Study Overview**

#### **Product Background**

I led hardware research activities for Nest Cam (indoor, wired) which is now available for purchase on the Google store <u>website</u>. This study evaluated the installation steps required to mount this camera to a wall or ceiling.

#### **Research Objective**

Understand the difficulty of Nest Cam's installation process, including attaching base to wall plate and properly aligning the camera's cable

**Stakeholders**: Industrial Design, UX Design, UX Writing, Product Manager, HW Engineering



## **Develop Issue**

I utilized the **Double Diamond** framework. This study used a prototype that was pretty far along in the development cycle but needed further usability evaluation prior to launch.







- Method: 30 minute remote unmoderated study with trusted tester participants living in the Bay Area
- Participants: N=8
  - Self-identified gender: 5 Male, 3 Female, 0 Non-binary
  - $\circ$   $\,$  Glove hand size:
    - Extra Small: 1
    - Small: 2
    - Medium: 2
    - Large: 2
    - Extra Large: 1





### **General Protocol**

# 01

Nest cam prototypes & installation tools were delivered to homes of participants in the trusted testers program

# 02

Participants submitted feedback and video clips via Google Forms about **intuitiveness** & **difficulty** associated with mounting the camera to the provided wall



## **Materials sent to Participants**



Screws & Screwdriver



Faux wall for installation



Table clamp (to secure faux wall to a table)



### **Part Definition**

The **wall plate** is a removable disc located at the base of the camera. Two screws are used to secure the wall plate to the install location (wall or ceiling).







# **Findings Summary: Difficulty of Installation**

Many (**5 out of 8**) found the process of mounting Nest Cam to a wall to be difficult, mentioning challenges with successfully rotating camera head so that it clicks **due to placement and thickness of the cable**.

"Since the wall plate was flush with the camera when I detached it, I didn't understand that it would re-attach farther away from the camera" -P6 "Trying to get the base to lock onto the wall plate was difficult. I couldn't get it to latch on because of the cord..I wasn't sure if it even fit together because of how the cord was blocking the interlocking of both pieces." -P5

"The only part that was a little perplexing was realizing that **the mounting plate would not fit completely in the base, like it was when I detached it**. Once I realized that it would rotate and click offset by the diameter of the cord, it was simple." -P8



# **Findings Summary: Difficulty of Installation**



Participants appeared to struggle with knowing when the camera base was properly engaged with the wall plate. There is a lack of physical or visual feedback to the user, informing them that the base can now be seamlessly rotated to its final position.



### Recommendations

#### **Reduce cognitive load during install process:**

- 1. Add verbiage to install instructions to explain and/or show the final offset positioning of the camera base.
- Consider adding a visual indicator (e.g. arrow sticker) on the camera base and wall plate to help user properly align these 2 parts
- 3. If a physical mechanism is possible to help seamlessly or automatically align the camera base and wall plate, that would be ideal

