Pandemic Pat - Quarantine Remote Delivery Bot

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Problem Statement:

Caretakers for Covid-19 patients risk infection by simply delivering supplies to their patients. Our team set out to solve the secondary infection issue, as well as reducing amount of PPE used in medical facilities.

Summary of Work:

Pat is controlled remotely over a mobile app. There is a camera attached to the front of the robot that sends a stream over a web-server as input to the app. App control inputs are passed from a raspberry PI to an arduino Uno that handles motor controls and scissor lift functionality. The entire system is powered by a removable drill battery that can be swapped out for low downtime.

Impacts on Community:

- Reduces contact between quarantined patients and their caretakers
- Reduces need for one time use PPE
- Promotes further development in autonomous and remote robots in the medical field