Things needed

- Temperature sensor (infrared sensor may be good)
    - https://www.sparkfun.com/products/9570
    - https://www.gadgetstrading.nl/ldtr-wg0091-ir-infrared-temperature-module-sensor-for-arduino.html?fee=1&fep=111419&utm_source=google&utm_medium=cpc&utm_campaign=google+shopping&utm_term=paid
- A cable to hang it in the bin
- A way to transmit and receive the temp
    - The one used in this project looks good http://www.instructables.com/id/RF-315433-MHz-Transmitter-receiver-Module-and-Ardu/
    - https://www.aliexpress.com/item/Brandnew-1x-315Mhz-RF-Transmitter-and-Receiver-Link-Set-for-Arduino-ARM-MCU-WL/32222944277.html
    - Arduino to transmit and then a raspberry pi to receive in the house
- A cover to protect components and devices
    - This is why infrared sensor is likely better
- Use the arduino at the top of bin
    - https://store.arduino.cc/usa/arduino-uno-rev3
- Raspberry pi and display to display info
    - https://www.buyapi.ca/product/raspberry-pi-3-model-b-plus/
    - For display could use LED display or a regular computer display
        - https://www.buyapi.ca/product/10-1inch-hdmi-lcd-h-with-case-1024x600/
        - Or some other display

Current Rough idea

Have the arduino and transmitter at the top of the bin and then have the sensors along the cable at three different points in the bin. The sensors will be connected to the arduino with wires (the wires will be bound to the cable somehow). A raspberry pi will be in the house connected to a monitor with the receiver. It will display a stream of what the arduino is reporting (could make a better display later but just make it like this now)

Rough cost right now

- About $200 for the display in house
- Around $80 per bin