IDEA: Interactive Window(s)

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Aka: Don't look into the window with a soul?

Intro

Do something pretty with these!

Door: Interactive display

Touch sensors. Screen. Fun!

LCD screen with a raspberry Pi and copper foil capastive touch sensors on the inside of the window.

Better view of the door:

First window: LED Display

We can't remove the sign, it's part of the fire safety stuff. But we can build things below it.

Each big window is: 660x1585mm. Sign is 1190mm from base. Small window is 515x1585mm
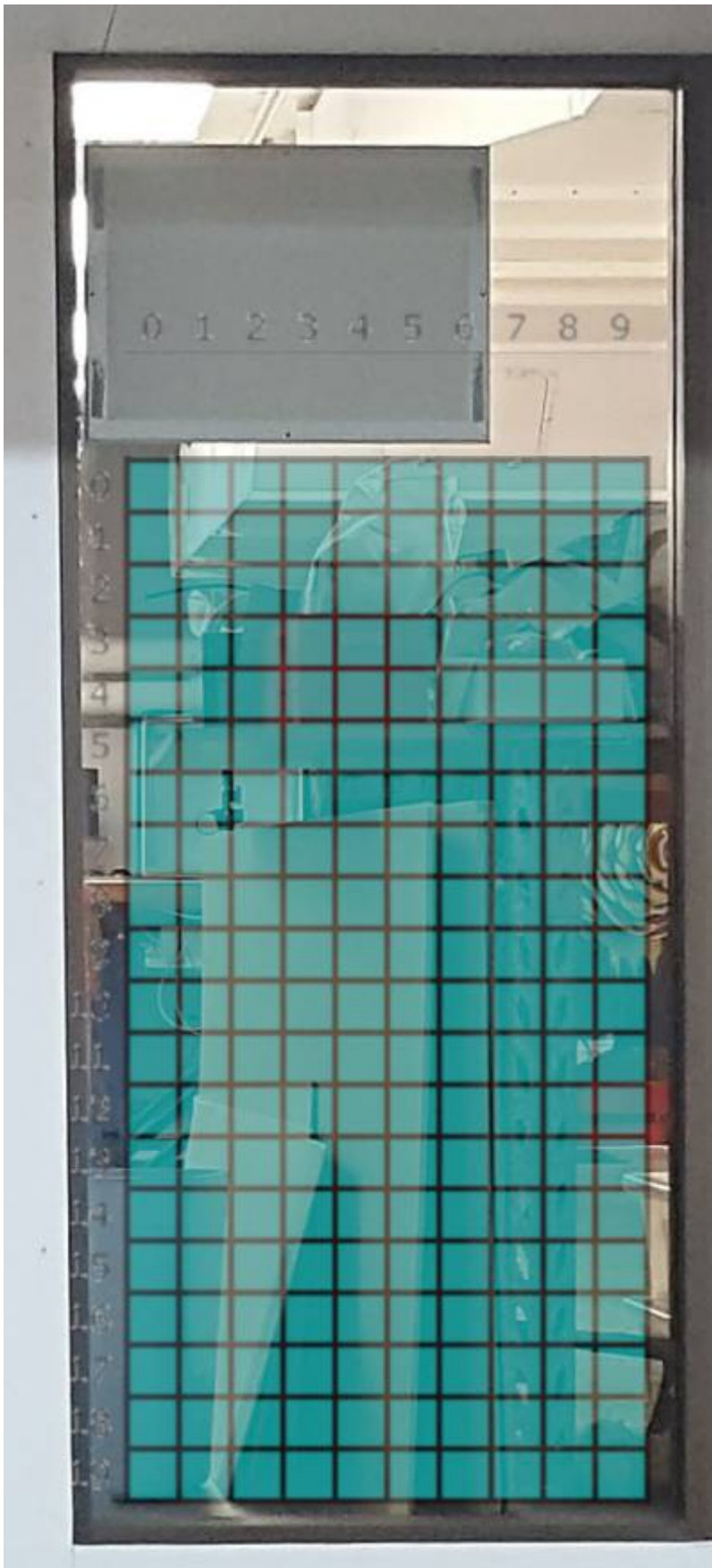
Window will fit a 10×20 LED 'pixel' display.

- Sheet of frosted plastic contact against the window.

- Cardboard frame/guide.
- Neopixel style LEDs.
- Driven by an arduino either independent or off the Pi from the doorway system
- Some kind of super robust external controls?

First game: TETRIS!

Quick mockup:

- https://camo.githubusercontent.com/09055a0086490ced5f7356780f58579f39094309/68747470733a2f2f692e696d6775722e636f6d2f6a7367754559452e6a7067
- https://imgur.com/a/Ql25S

Second window: Ants!

Some kind of ants nest. Maybe filling about half the window?

Third window: Unknown

No idea yet!

Materials

Detection chips:

- https://www.aliexpress.com/item/16-Keys-Capacitive-touch-TTP229-module-I2C-bus/32672496161.html?
- https://www.aliexpress.com/item/WAVGAT-MPR121-Breakout-V12-Capacitive-Touch-Sensor-Controller-Module-I2C-keyboard-For-Arduino/32821362153.html?s

Some info:

- https://www.mouser.com/pdfdocs/semtech-capacitive-touch-sensing-layout-guidelines.pdf
- https://www.sparkfun.com/datasheets/Components/MPR121.pdf

LEDs:

- https://www.aliexpress.com/item/DC12V-RGBW-DMX512-UCS512-chip-5050-SMD-addressable-pixel-PCBA-3-piece-of-5050-SMD-LED/32881386437.html?

Tools

(List all the tools you used to complete the project, eg: from #1 Philips screwdrivers, to the CNC machine)

Instructions

(This is where you put the step-by-step photos showing how to carry out your project, as well as an explanation in words. Rename the steps as you like, use italics or bold for emphasis.

Don't forget to include design files for CNC, laser cutting or 3D printing but remember they need to be zipped before uploading to the Wiki (it is also useful if they are in a transferable format, .svg rather than .ai, for example).

Step One:

Step Two:

Step Three:

Step Four:

etc …

Development notes

(This is where you can put ideas that you tried, but which did not work and why !)

Feedback

(Here you can put any suggestions from users that you have not yet implemented, and mention any unforeseen difficulties encountered in operation or construction)

References

This were you put external links like LED generator, if they have not appeared in the Instructions.

Files

This is where you put files for laser cutting, Excel sheets of suppliers etc..

Links

Any External Links like 'Thingiverse' etc. to go here …

Project Progress

(Use this section as a running summary of how the project is going so that others can follow. Diary type entries, with dates, would be a good format.)

Log of works

Itemize work carried out …

- Prototype done …

Project Table

Project	Percent Complete	Project Lead	Status	Budget Req	Budget Approved	Next Major Milestone	Subsequent Milestones to complete	
Test Page	90%	Byron	Play with	$0				