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CU I&E Submission: Fabrication Request System [1]

Team Information

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Who

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What

We built a custom fabrication intake system as an emergency response to COVID-19. For certain paths within the College of Engineering and Applied Science (CEAS), an evolving portion of the curriculum is hands-on. In engineering, this means not only student use of computers and desktop equipment, but also specialized equipment used for prototyping or fabrication such as a 3D printers, laser cutters, CNC mills, etc…

Traditionally, this prototyping and fabrication work is done by students as part of the curriculum With the restrictions brought on by COVID-19, the buildings and spaces that house this equipment were no longer available to students. As a result, we built a fabrication system to connect students with the staff who were allowed to be in those spaces. Our intake system is currently used in three different departments and programs within the CEAS and is fully scalable and customizable.

Since the start of Fall 2020, over 1,700 work/fabrication requests have been submitted and processed through this system.

Why

Without this system, projects-based classes within the CEAS who rely upon these tools and equipment would have struggled or failed as hands-on projects are core to the curriculum. As a result, classes were able to function as planned, albeit with some adjustments. Moreover, several hands-on prototyping and fabrication facilities within the College of Engineering, out of reach to students, would have been sat significantly underutilized or dormant. Lastly, it kept the staff who support and work within these spaces busy, many of whom have responsibilities which don’t translate to a remote work environment.

When

This tool was planned in built in early July through August 2020 and made available by the start of the Fall 2020 semester for three separate departments and programs.

Additional Details

The requester/submission of the system can be seen here: https://u4715944.ct.sendgrid.net/ls/click?upn=kg88jUi5hQ7E3WFobdYNyBYqgHerYpguTxSuSYcfmAXc 3D-3Dgpw6_IpA7hxueGg5XIsiAxedwPIHJOOoBvcICXIhQlO646DPY3JiYWyIxeTEx-2BfQadcG-2F9q58DbHOGce2yWluQw6zOtXKR3NcegPvXrGR86YyQO4LzJ5cChkbnrA6tzlpVDw1JE6T95WA62Qf 2FxxZYcOkMzA0U4846zIZGpELYC4x5eqyaGOaiTOHBodyWYAceIKT2xLde9CvMEGKZz8KMUB8UDQ 2FCyNCVACBJSiNzp4nK3Q6P5-2FX5xEmdrEgfijPDVrvtoAbjEyLCSeY3e1-2F3P0mB6VRpFNQzKS92N-2B1vMnEURbGS80O2QbaWVegBKPaM6gWdd-2FsYN8W3IhRyoriP8ZJmolFlGt9Q-2FK4dv147 [6]

Source URL:https://www.cu.edu/controller/i-e-awards/past-submissions/cu-ie-submission-fabrication-request-system

Links
[1] https://www.cu.edu/controller/i-e-awards/past-submissions/cu-ie-submission-fabrication-request-system
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