<table>
<thead>
<tr>
<th>Team Name</th>
<th>Designing for Creative Physical Computing</th>
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<tbody>
<tr>
<td>Goals</td>
<td>This project-based course will form research teams that design, prototype, and test technological innovations for supporting physical computing educational spaces.</td>
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<td>Research, Design or Technical Issues Involved or Addressed</td>
<td>The team will research the design of tools and activities for learning and creating with physical computing. The project spans exploration of tools in both the physical and digital space that can support a diversity of interdisciplinary spaces. For example, supporting physical computing in literary, visual and performance arts environments—i.e. integrating into poetry, mural design, and dance; or, supporting entrepreneurs to design and create embedded devices more seamlessly in order to quickly test hypotheses within their market segment. The students will examine the hardware, software, and physical design of tools for providing non-experts with flexibility, agency, self-efficacy, and knowledge as they build creative solutions with physical computing.</td>
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| Sub-teams | Hardware Design  
Software Design  
User-Experience  
Design of Educational Activities and Learning Environments |
| Methods/Technology | Microcontrollers + Platforms (i.e. Arduino/Raspberry Pi/Circuit Playground/Sensors)  
Internet of Things  
User-Experience Design  
Participatory Design  
Co-Design  
NYU MakerSpace |
| Majors and Areas of Interest | Digital Media Design for Learning  
Interactive Telecommunications Program  
Integrated Digital Media  
Electrical and Computer Engineering  
Computer Science  
Mechanical Engineering  
Teaching and Learning |
| Partners | NYU Steinhardt  
NYU Tisch  
NYU Tandon School of Engineering  
NYU Stern  
Community Word Project  
Dance from STEM  
Divas for Social Justice |
| Related Engineering Grand Challenges | Advanced Personalized Learning |
| Contacts | Primary Instructor: Dr. Kayla DesPortes (kayla.desportes@nyu.edu) |