

## UC Bike Builders

Life in Hyde Park can be tedious by foot, and treacherous by car. Long stretches confront residents daily, making walking difficult, especially when the cold creeps and the wind bites. Cars are expensive and difficult to maintain in a city framework, beyond having environmental concerns that are certainly not beyond us. This leaves the question of how one may find their way independently around campus, and this question kindly returns an answer. The bicycle.

Bikes are very popular on campus, and it is rather easy to see why. They provide cheap and effective means of transportation, in addition to promoting a healthy lifestyle and granting a new avenue for physical recreation and relaxation. Beyond all of this, they offer a new outlook on the city, a little bit of a forced slowdown, a necessary inspection of the city in which we live by means of our movement through our lives. But often those of us with bikes forget just what precisely it is that we ride upon, and how such a thing came to be.

In keeping with the spirit of the forced acquaintance a bike makes us observe with our place of residence, we propose to build our own bikes. Some clarification ought to be made here, when we say 'build', we do not simply mean to purchase a bike and construct it from the parts we receive. We intend to design and weld the frame, to spoke the wheels, and to pack the gears ourselves. By the end of the project we intend for there to be no piece of metal we have not spent time with, no part of the bike we do not know like the back of our hands.

This project might seem difficult, even un-tenable; for welding is not something all have access to, especially in the city. Fortunately, we both stand as student staffers for the Logan Center Wood and Metal shop, and as such are well aware of precisely how this venture would need to proceed and have presently under our belts most all of the necessary skills. As such, this project is meant to stand practically, to provide both of us with bikes, but also educationally, to instruct us further in the field of practical metalworking. But us the creators will not be the only ones learning. By using frequently the TIG welder and other curious tools we need for this project, we hope that we may interest others into studying these new tools alongside us, or spike their interest in the incredible faculties this school has to offer. By having bikes, commodities generally mass produced, sprout up slowly around members of the fabrication community on campus we hope to instill a deeper faith in student's abilities to manufacture for themselves. Finally, we hope that through our work we will have learned enough about bikes and their maintenance, in addition to the culture that surrounds bike modification, to hold workshops on campus teaching others how to best maintain their bikes in a city environment, and how to modify the bike for either aesthetic or practical purposes.

In order to realize such a potential, we propose to build five bikes of varying size and geometry with the money we would receive from this grant. From cruisers to drop downs, we aim to study and create all kinds of bikes so that we may be fully versed in the world of bike maintenance and design, and may bring what we gleaned through this experience back to our community. This project will need, beyond the assistance of our faculty sponsor, the help of bike professionals. We plan on working with Blackstone Bicycle Works in order to gain the maintenance and design help that goes beyond our skill set.

Listed below are the price amounts of the tools and materials we will need for this project, with one time purchases being distinguished from purchases necessary for each bike. As the list suggests, we here request \$3,000 in grant money to purchase the necessary tools and materials as listed below as well as any other unforeseen resources that could help us with this project. The opportunity to become so well acquainted with such practical facilities is truly an honor, and we hope that you are able to help us realize this potential by funding our project.

## UC Bike Builders Budget

One time purchases	Estimated price
Bike work stand truing	\$125
Stand	\$75
Spoke wrench	\$10
Pedal wrench	\$20
Chain scrubber	\$15
Chain lube	\$10
Torque wrench set	\$60
Bottom bracket tool	\$20
Headset press	\$75
Bearing Removal Tool	\$180
Dish Gauges	\$50
Chain whip	\$25
Chain tool	\$30
Chain link pliers	\$15
Tire levers	\$5
Hub grease	\$15
Brake grease	\$5
Spokes	\$20
Cables	\$100
Bar wrap	\$30
Skewer holders	\$50
Seat clamps	\$30
Tubes	\$40
Tires	\$100
TIG welding gloves	\$60
Rim tape	\$20
<b>TOTAL FOR MATERIALS</b>	<b>\$1,185</b>

Required materials (per bike)	Estimated price
Aluminum steel tubing for frame triangle, rear fork, handlebars, and bottom bracket shell	\$100
Front fork	\$20
Bottom bracket	\$15
Brakes	\$20
Seat	\$20
Crank set	\$25
Rims	\$70
Pedals	\$20
Chain	\$5
<b>TOTAL PER BIKE</b>	<b>\$295</b>
<b>TOTAL FOR 5 BIKES</b>	<b>\$1,475</b>