Our team is going to build a bicycle that stores energy mechanically, which reduces conversions and allows for the energy to be transferred from storage to kinetic extremely quickly. A flywheel powered bicycle would be quick charging, have limited moving parts, and provide extreme accelerations whilst also taking advantage of restoring energy under downhill riding.

Our design will use an electric motor to “charge up” a flywheel mounted on the bike. A typical drill motor would be able to spin our flywheel up in several minutes, allowing for our customer to simply find an outlet, plug in the bike, wait a few minutes, and continue their commute. Finally, because there is no conversion of energy from chemical or electrical into kinetic, massive acceleration magnitudes would be attainable, giving the customer for this bike incredible thrills as they accelerate to 30 miles per hour. The bike’s flywheel would also recharge down hills, converting speed back into stored energy.