A new type of general physics experimental lab in a college, learning physics principles via designing and building a device has been attempted at POSTECH in Korea, since 2010. Traditional general physics experiment course, which is almost standardized all over the world, is based on the concept to confirm and verify in the real world the principles taught in the class. The design and build physics lab (DBL) normally provided in the second semester emphasizes students to learn and realize themselves how physics principles operate in a real product by working on a project as a team, in agreement with the spirit of the STEAM educational system. In this paper, our experience on this new teaching approach in Korea in the past few years will be presented.