

Artificial Intelligence-

The Intelligent DCP would use Artificial Intelligence (Ai) to monitor and manage the insulin that you need. Using Ai you would know if you need insulin, glucose, or if you need to eat or drink something. A computer and Ai program would be built into the pump. The Ai would understand when to deliver the insulin by understanding your physical activities and what you are eating.

Dual Chamber-

The current insulin pump is a one chamber pump; our idea is a dual chamber pump that uses Artificial Intelligence to manage insulin. In chamber one would be where the insulin is. In the second chamber would be the glucose for emergencies.

Thermoelectric Device-

Our pump would be powered by a thermoelectric device that turns body heat into energy. The thin material would be placed on the back side of the clip that is used to keep the pump in place. When the air around us is at a different temperature than our body we can use the differences in the temperatures along with a conductive material to generate electricity. This is known as the “Seebeck Effect”. The clip would be able to be placed on any type of clothing as long as the thermoelectric device is placed on the skin.