```
uint16_t vbat,ibat;
float duty = 0.5; /* initial converter duty */
void main()
{
	initialise_msp();
	while()
	{
		adc_results_get(&vbat, &ibat);
		if(vbat > BATTERY_FLOAT)
		{
			/* Battery fully charged. Turn off converter */
			duty = 0;
		}
		else
		{
			mppt_algo(vbat, ibat);
		}
		converter_duty_set(duty);
	}
}

void converter_duty_set(float d)
{
	TD0CCR1 = (uint16_t)(duty*(float)TD0CCR0);
}

void mppt_algo(uint16_t vb, uint16_t ib)
{
	static uint32_t power_prev = 0;
	static float duty_step = 0.05;
	uint32_t power_new;

	power_new = vb*ib;

	if(power_new > power_prev)
	{
		duty = duty + duty_step
	}
	else
	{
		duty_step = -duty_step;
		duty = duty + duty_step;
	}

	/* Limits on duty cycle */
	if(duty < 0)
	{
		duty = 0;
	}
	else if(duty > 0.98)
	{
		duty = 0.98
	}
}
```