

# FIT5

 BERTEC



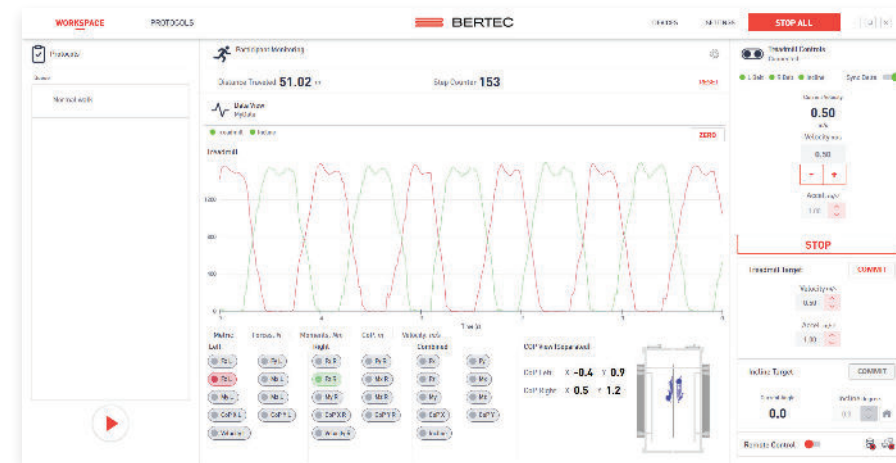
## Bertec® Fully Instrumented Treadmill v5 (FIT5)

The Bertec Fully Instrumented Treadmill (FIT) allows gait researchers to reduce laboratory space requirements and remove the limitations inherent in a traditional force plate walkway. The unique design features result in superior dynamic characteristics and a high natural frequency making it the preferred research-grade fully instrumented treadmill. The Bertec treadmill enables walking and running research with speeds up to 11.5m/s, and six-component force data output at 1000Hz.

### Split Belt Treadmill Design

- Two independent belts, individually controllable, measuring 1.75 x 0.5 m (~ 70 x 20 in) each
- Keeps data from each foot separate for accurate data during walking
- Six-component force output from each treadmill half (Fx, Fy, Fz, Mx, My, Mz) at 1000Hz
- Max load range of: Fx, Fy: 2,500 (550)  
Fz: 5,000 (1,100) N (lb) per belt
- Each treadmill half is mechanically isolated from the other to minimize cross talk between belts

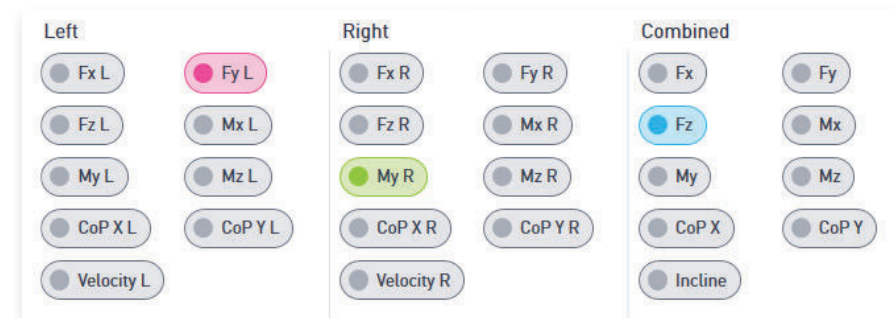




Control Software UI

### Significant Updates to Treadmill Control Software

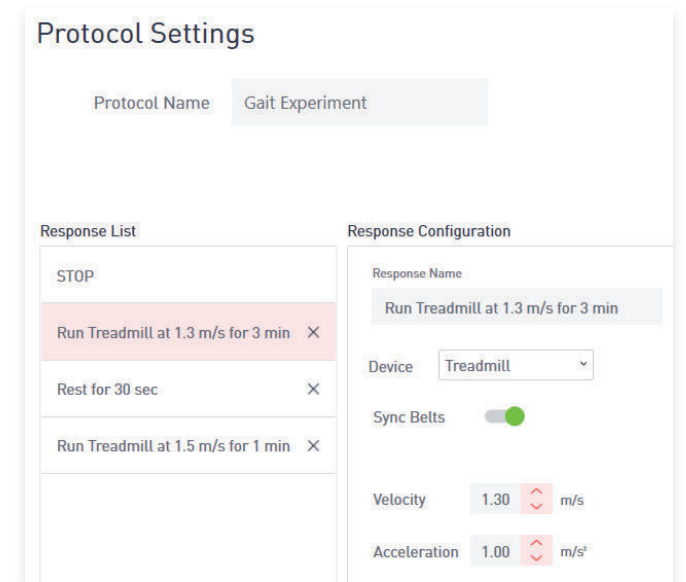
- Control your treadmill and capture your data in a single software
- New and improved UI with user-friendly design
- Quick controls for fast, easy speed changes in increments of 0.1 m/s
- Live data view with data-channel toggles for easy one click viewing of data stream
- 2D center of pressure display to monitor subject location during trials



Data Channel Toggles

### Protocol Builder

- Create custom treadmill protocols to operate your device with unique playlist-style functionality
- Offers repeatability for experiments by saving protocols and highlighting your favorite playlists
- Sync your data capture with your custom protocol for one-click operation during experiments



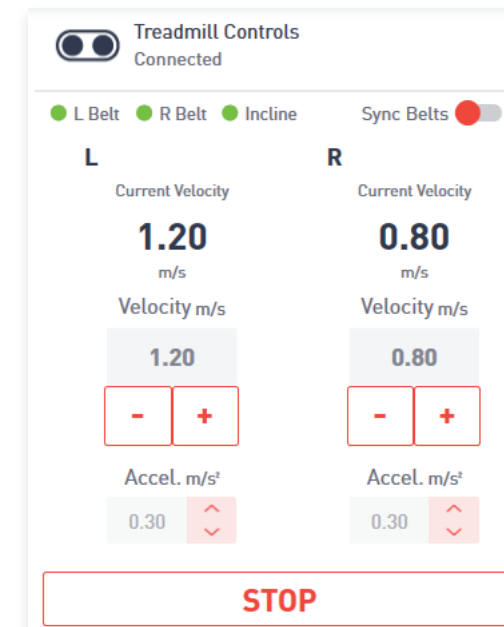
Protocol Builder

### Industrial Grade Servo Motors

- High precision motion control for biomechanics research applications
- 6.5 Nm/74.2 Nm Continuous/Peak Torque for smooth and consistent acceleration
- High Performance – speeds up to 11.5m/s (25mph), acceleration up to 5 m/s²

### Improved Drive Belt and Rollers

- Reduces belt slippage under heavy load
- Lower maintenance – drive belt won't loosen over time



Treadmill Controls



## Low Friction Wear Board

- Reduces belt sticking during high intensity applications
- Less heat generation during running so you can run longer trials
- Lower maintenance – wax-impregnated board is self-lubricating

## Isolated Electronics Cabinet

- Keep electrical noise separate from your data, and away from sensitive force measuring instruments

## Remote Control API

- Python integration via Remote Control API for advanced programmatic control, including real-time feedback-based controls

## Options

Incline Base: Analyze uphill and downhill movements up to 15 degrees

One-year standard warranty included. Optional extended warranty available.

Overhead Structure and Harness ensures patient safety and prevents falls and off-track movements. Users can be comfortable and confident during testing.

Instrumented handrails available – each handrail outputs three components of force (Fx, Fy, Fz)

For more information, contact Bertec at 614-543-8099 or at [info@bertec.com](mailto:info@bertec.com)

